
**A PRESENTATION BY THE KENYA NATIONAL UNION OF TEACHERS,
UNIVERSITIES ACADEMIC STAFF UNION AND KENYA HUMAN
RIGHTS COMMISSION TO THE NATIONAL EMERGENCY RESPONSE
COMMITTEE ON CORONAVIRUS [COVID-19 PANDEMIC]**

27 May 2020

**Effects of Coronavirus Pandemic on Education - Mitigation Measures,
Analysis and Recommendations on Reopening of Schools, Colleges &
Universities.**

Nairobi - KENYA

FOREWORD

The novel Coronavirus (COVID-19) is a human-to-human transmitted disease which emerged from the City of Wuhan, China in December 2019. It is a strain of the coronavirus that has not previously been seen in human beings. On its initial detection, the outbreak was declared a Public Health Emergency of International Concern on 30 January 2020. On 11 February 2020, World Health Organisation (WHO) announced a name for the new coronavirus disease as COVID-19. Subsequent assessments by WHO informed the decision on 11 March 2020 to characterise COVID-19 as a pandemic, making this to be the first ever pandemic sparked by a coronavirus.

Upon this outbreak, it quickly spread and caused morbidity and mortality in China and the neighbouring countries before it spread beyond and to far flung countries including Kenya, leading to lockdowns as an immediate containment measure. It should be noted that there were other preventive measures prescribed by UNESCO, UNICEF and WHO to curb the further spread of the infernal virus and these included - social distancing, washing of hands often, avoiding crowded places, stay at home as much as you can, among others.

COVID-19 had spread to all parts of the world by 01 May 2020, leading to a pandemic that has resulted in several people infected. By May 24th, 2020 a total of 5.4 million people world-wide had been infected - 2.17 million had recovered and 345,000 deaths had been reported. In Kenya, there were 1214 confirmed cases - 383 recoveries and 51 deaths reported.

It is against this kind of threat that President Uhuru Kenyatta issued an Executive Order number 2 of 2020, establishing the National Emergency Response Committee on Coronavirus pandemic as a framework to upscale and coordinate Kenya's level of preparedness and capacity to prevent, respond to and contain COVID - 19 pandemic. Indeed Kenya Government rolled out several containment measures as recommended by UNICEF, UNESCO, WHO and World Bank which also included closing down of educational institutions - ECDE centres, schools, colleges and universities

on March 15th, 2020, completely halting academic and extra-curriculum programmes.

While UN member States started working to ensure the continuity of learning through alternative delivery modalities, they also started anticipating preparing for reopening of schools, colleges and universities. Ministries of Education in consultation with the Ministries of Health, Security, Social Affairs and other key Public and Private institutions started planning for reopening of schools - prioritizing the safety and protection of learners, teachers and other personnel, as well as their health - physical, mental and psychosocial, well-being and social relationships.

However, the time to start serious planning for school reopening came on April 24th, 2020 when UNESCO organised its **Sixth COVID-19 Education Response Webinar** around effective strategies to anticipate and prepare for this critical transition, sharing lessons also from past crises.

The health, safety and overall well-being of students and the entire education community was the central concern expressed by all speakers, and the overarching message of the Webinar, attended by over 500 participants. The session enabled information sharing around key questions such as the timing, conditions and processes for schools, colleges and universities reopening.

It was on the basis of the recommendations of the **Sixth COVID-19 Education Response Webinar** that Kenya National Union of Teachers (KNUT), Universities Academic Staff Union (UASU) and Kenya Human Rights Commission (KHRC) in collaboration with the Kenya Medical Practitioners Pharmacists & Doctors Union (KMPDU), Forum for African Women Educationalists - Kenya (FAWE - Kenya) and Elimu Tuitakayo Network - [*enriched by significant inputs from Parents of Children with Disabilities who felt non-represented with the exclusion of Kenya Institute of Special Education*] - compiled this incisive and quite adaptable report to assist the Kenya Government to formulate appropriate measures that would lead to reopening of ECDE centres, schools, colleges and universities with the basic aim of restoring and normalising teaching, learning and training.

The report which focuses on **Back to School-College-University Strategies**, discusses extensively issues touching on assessing and ensuring the readiness of the Education system for schools, colleges and universities reopening; the continuity of learning and training; and system resilience to anticipate and deal with future crises. The Government will need to anticipate and prepare for additional challenges resulting from the direct and indirect consequences of COVID-19 and prolonged social isolation, on both the Education system and on the school community. These include increased risk of dropout, the exacerbation of existing and new inequalities, or the loss of education personnel.

The report, precisely gives an insight into how timing is the most crucial question, focus on health of learners, teachers and non-teaching staff, and how learning loss will continue to aggravate locals, especially the poor and most vulnerable.

On determining when and how to re-open schools, the report calls for an objective, inclusive and comprehensive data-driven process of ascertaining how schools, teachers, non-teaching staff, students and communities are coping with closures and the pandemic. In any case, basic considerations should be placed on the best interest of the child, teachers, Education service personnel and overall public health considerations, as informed by assessment of the associated benefits and risks and cross-sectoral and context-specific evidence, including education, public health and socio-economic factors.

The report notes that reopening of educational institutions should largely be determined by the status and evolution of the pandemic, informed by advice from health authorities.

(HON. WILSON SOSSION)
SECRETARY GENERAL
K.N.U.T

(GEORGE KEGORO)
EXECUTIVE DIRECTOR
KHRC

(DR. CONSTANTINE WESONGA)
SECRETARY GENERAL
UASU

ACKNOWLEDGEMENT

Kenya National Union of Teachers (KNUT), Kenya Human Rights Commission (KHRC), Universities Academic Staff Union (UASU) and Kenya Medical Practitioners Pharmacists and Dentists Union (KMPDU) are indebted to many institutions and individuals for their insights, contributions and time towards preparing this incisive report that we believe will greatly assist the Kenya Government to come up with a roadmap towards reopening educational institutions, and more importantly restoring normalcy in the Education sector.

We would like to express our special gratitude to Hon Wilson Sossion the Secretary General of KNUT, Mr George Kegoro the Secretary General of KHRC and Dr Constatine Wasonga Secretary General of UASU who were the brain-box behind the preparation of this incisive and well researched report.

We are particularly grateful to Boaz Waruku the Programme Manager of Africa Network Campaign on Education for All and Policy Advisor of *Elimu Tuitakayo Network* for his wealth of experience and generous input in preparing this exclusive report. In the same breath, we take the earliest opportunity to recognize the immense contribution of Jedidah Rutere a Research Officer at KNUT Headquarters and Mr John Machio a Nairobi based investigative journalist who worked tirelessly through several meetings, discussions to draft this report.

The preparation and publication of this report would not have been possible without the useful research by Prof Florentius Koech, Dr Mayra Maghasi, Dr Nicholas Kirui and Mr Preston Yegon, all of Moi University College of Health Sciences, and the UASU technical working group led by Prof. George Osanjo of department of Pharmacology. In the same spirit, we would like to convey our gratitude to the Secretary General of KMPDU, Dr Chibanzi Mwachonda and his team for their research and advisory pieces that went into the compilation of this very important document. We recognize and appreciate the technical review done by Ms Terry Otieno, the

Executive Director of Forum for African Women Educationalists - Kenya (FAWE-Kenya).

We acknowledge respondents to the questionnaires administered online and particularly the impressive number of parents of children with disabilities, for their time and prompt feedback.

We are also grateful to the support and encouragement received from the National Steering Committee of KNUT led by the National Chairman, Wycliffe Etole Omucheyi and the National Treasurer, John Matiang'i. We wish to recognize various KNUT Executive Secretaries and individual teachers who contributed to the subject matter on short notice. Finally, we appreciate the generous and tireless support of Lucy Marete and Pauline Njoki Mburu of KNUT Head Office, Nairobi for the secretarial work.

Thank you all, and may the God bless.

TABLE OF CONTENTS

Chapter	Page
1 Preamble	8
2 Introduction	9
3 Methodology	14
4 Key findings	16
5 Urgent issues in Education due to Coronavirus	25
6 Why schools should not re-open as of now - a Global Scan	37
7 Independent technical Advisory by Doctors and Health Experts	39
8 Overall recommendations and way forward	58
9 References	61

PREAMBLE

Pursuant to the enormous responsibilities thrust upon us based on our *raison d'être*, and seizing the opportunity to contribute towards mitigating COVID - 19's devastating effects, particularly on Education -

We, Kenya National Union of Teachers (KNUT), Universities Academic Staff Union (UASU) and Kenya Human Rights Commission (KHRC) in collaboration with the Kenya Medical Practitioners Pharmacists & Doctors Union (KMPDU), Forum for African Women Educationalists - Kenya (FAWE - Kenya) and Elimu Tuitakayo Network - [*enriched by significant inputs from Parents of Children with Disabilities who felt non-represented with the exclusion of Kenya Institute of Special Education*] - have put together this report to inform debate and decision making on schools reopening and management thereof. The report benefits from incisive desk analysis by a panel of experts, raw data analysis of responses from across the country by teachers, non-teaching staff, frontline human rights defenders, doctors and health experts in the field of corona virus. It has taken on board useful analysis of relevant information and experiences from global contexts including international health expert opinions, multi-state agencies' guidelines, and unions from other countries and jurisdictions.

We submit this report to the National Emergency Response Committee on Coronavirus in good faith, to inform discussion and decision making on managing Education sector within this COVID - 19 period, and particularly when matters of re-opening of schools and guiding teaching and learning are on the table.

Vide *Executive Order Number 2 of 2020* issued at State House of Kenya on 28 February 2020, H.E. President Uhuru Kenyatta established the National Emergency Response Committee on Coronavirus as a framework to upscale and coordinate Kenya's level of preparedness and capacity to prevent, respond to and contain COVID - 19 pandemic.

CHAPTER 1

INTRODUCTION

Irrespective of the prevailing situation and circumstances in the country, the Government is obligated to comply with **Article 53(1) (b)** of the Constitution of Kenya (2010) to afford *every child free and compulsory quality Basic Education*. Indeed, **Article 43 (1) (f)** of the same constitution unequivocally provides that *every person has the right to Education*.

Furtherance to this, **Article 55(a)** of the Constitution observes that “*The State shall take all measures, including Affirmative Action programmes to ensure that the youth access Relevant Education and Training.*”

Part IV of the Basic Education Act (2013) addresses all issues that pertain to the implementation of *the right of every child to free and compulsory quality Basic Education*. In this regard, and as outlined in **Part II** of the Basic Education Act, the National Education Board shall:-

- (a) Collaborate with the Quality Assurance and Standards Council, Teachers Service Commission and with other stakeholders to promote standards in Basic Education and Training.
- (b) Work with all relevant authorities and agencies to ensure that all the barriers to the right to quality education are removed and that the National and County governments facilitate the realization of the right to education by all Kenyans.
- (c) The Board shall put measures in place to ensure all children attend and remain in school to complete Basic Education requirements.

Section 39 of Part IV of Basic Education Act states that it shall be the duty of the Cabinet Secretary to:-

- (a) Provide infrastructure including schools, learning and teaching equipment and appropriate financial resources.
- (b) Ensure quality Basic Education conforms to the set standards and norms.
- (c) Monitor functioning of schools.

Cognisant of the afore-stated facts, Education is currently under heavy ATTACK by the ruthless Coronavirus COVID - 19. Kenya and the rest of the world have not known peace since the disease was detected in Wuhan China and its rapid spread across the borders and continents. Kenya has been hit severally since 04 March 2020 when the first case of COVID-19 was reported in the country, from the first tests undertaken. World Health Organisation and respective governments' guidelines to contain the pandemic are being implemented with some modicum of positive outcomes. Kenya still has challenges to surmount as COVID - 19 has slowed down teaching and learning across the country. Syllabus coverage has been adversely affected.

We - as KNUT, UASU and KHRC together with our collaborating partners KMPDU, FAWE-Kenya and Elimu Tuitakayo - have engaged in elaborate but rapid country-wide consultations with the members/teachers, officials, networks and other stakeholders with a view to, among others-

- a) Assessing the possibility of recalling National Examinations Classes (Std 8 and Form 4) back to schools to continue with syllabus coverage and prepare for examinations. This includes outlining what needs to be put in place before such a re-opening, when the KCPE and KCSE examinations should be administered, and what measures would best protect teachers and learners in such a scenario.
- b) Exploring the possibility of re-opening for the rest of the classes, and in particular, outlining what would be considered most appropriate health and safety measures for the full re-opening, and when such a re-opening should occur.
- c) Reviewing the effectiveness of the on-going remote learning on syllabus coverage, from the angle of the **2030 Agenda for Sustainable Development** wherein 193 United Nations Member States, with Kenya

on the driving seat, pledged to ensure that on matters development and Education *No One is Left Behind* and by State Parties committing to *“endeavour to reach the furthest behind first”* in such development processes.

- d) The fate of the public schools being used as quarantine centres, and what it will take to restore them back into normal learning centres.

UNESCO and UNICEF have led several agencies in calling on governments to engage in broader and inclusive consultations to arrive at decisions regarding the re-opening of schools. More precisely, the agencies have outlined critical guidelines to provide minimum standards of procedure in taking decisions regarding schools reopening -

- *Policy reform to address all dimensions of the guidelines, including clear policies for school opening and closure during public health emergencies, reforms needed to expand equitable access for marginalised and out of school children as well as strengthen and standardize remote learning practices.*
- *Financing requirements to address the impact of COVID-19 on education and invest in strengthening education systems for recovery and resilience.*
- *Safe operations to ensure conditions that reduce disease transmission, safeguard essential services and supplies and promote healthy behaviour. This includes access to soap and clean water for safe handwashing, procedures on when staff or students feel unwell, protocols on social distancing and good hygiene practices.*
- *Compensating learning by focusing on practices that compensate for lost instructional time, strengthen pedagogy and build on hybrid learning models such as integrating approaches in remote and distance education. This must include knowledge on disease transmission and prevention.*
- *Wellness and protection by expanding the focus on students' well-being and reinforce the protection of children through enhanced referral mechanisms and the provision of essential*

school-based services including healthcare and school feeding.

- *Reaching the most marginalised by adapting school opening policies and practices to expand access to marginalised groups such as previously out-of-school children, displaced and migrant children and minorities. Diversify critical communications and outreach by making them available in relevant languages and in accessible formats*

In any approach geared towards restoring teaching and learning, absolute care, sensitivity and caution should be taken on board noting that teachers, non-teaching staff, students and families are under stress, and the anxiety exhibited by teachers who may already be exposed to the pandemic when asked to work in situations where the COVID-19 risk is spreading, is palpable.

With more than 63 million primary and secondary teachers around the world affected by school closures in 165 countries due to the Covid-19 pandemic, majority of them being at the frontline to ensure that learning continues for the nearly 1.5 billion students, the International Teachers Task Force has issued a Call for Action on Teachers to ensure that teachers are protected, supported and recognised during the crisis.

As KNUT, UASU, KHRC and collaborating partners, we fully embrace and reiterate the International Teachers Task Force's call on governments to-

- *Preserve employment and wages and not to use the crisis as an excuse to lower standards and norms, or push aside labour rights. The salaries and benefits of the entire teaching and education support staff must be preserved.*
- *Prioritise teachers' and learners' health, safety and well-being, knowing that teachers need socio-emotional support to face the extra pressure being put on them to deliver learning in a time of crisis as well as provide support to their students in these anxious circumstances.*
- *Include teachers in developing COVID-19 education responses given that teachers have a crucial role in the*

recovery phase when schools reopen. They must be included at all steps of education policy-making and planning.

- *Provide adequate professional support and training on how to ensure that learning continues.*
- *Put equity at the heart of education responses, as greater support and flexibility is needed for teachers who work in remote areas or with low-income or minority communities, to ensure that disadvantaged children are not left behind.*
- *Include teachers in aid responses by urging financing institutions to help governments support education systems, particularly the teaching workforce's professional development. Such support is particularly urgent in some of the world's poorest countries, which are already struggling to meet education needs because of critical shortages of trained teachers.*

CHAPTER 2

METHODOLOGY

This report incorporates analysis of quantitative and qualitative data gathered through diverse means, including -

- i. A desk study analysis of literature and other secondary data was undertaken between April and May 2020 on effects of COVID19 pandemic on education and on e-learning/remote learning.*
- ii. A rapid assessment by use of semi-structured survey questionnaires, administered to the unions' national infrastructure where upon responses were received from a representative sample of 33 branches out of a total 110 branches of KNUT.*
- iii. Further quick surveys using online questionnaire to capture data from teachers from the ECDE, primary and secondary, sampled from the branches, KNUT Branch Executive Secretaries and selected Branch Executive Committees.*
- iv. Analysis by UASU technical working committee on COVID-19 and its ramifications on Education sector.*
- v. Expert analysis by Dr. Florentius Koech - led team of Doctors and Health experts on Coronavirus and its implications of reopening of learning institutions.*
- vi. An overview and scan of the global perspectives on schools' re-opening from unions in the diaspora.*

- vii. Analysis of the UNESCO-UNICEF framework for reopening of schools*
- viii. Analysis of the guidelines recommended by the International Teachers Task Force on schools re-opening.*
- ix. Rapid response and analysis by the Kenya Human Rights Commission and human rights network on access to basic services in non-formal settlements and rural poor communities.*
- x. Executive analysis and validation by FAWE Kenya and Elimu Tuitakayo policy teams of the COVID-19 Report.*

CHAPTER 3

SOME KEY FINDINGS

We - Kenya National Union of Teachers (KNUT), Universities Academic Staff Union (UASU) and Kenya Human Rights Commission (KHRC) in collaboration with the Kenya Medical Practitioners Pharmacists & Doctors Union (KMPDU), Forum for African Women Educationalists - Kenya (FAWE - Kenya) and Elimu Tuitakayo Network - have engaged in elaborate but rapid country-wide consultations with the wider memberships, officials, networks and other stakeholders with a view to, among others to;

- a) Assessing the possibility of recalling National Examinations Classes (Std 8 and Form 4) back to schools to continue with syllabus coverage and prepare for examinations. This includes outlining what needs to be put in place before such a re-opening, when the KCPE and KCSE examinations should be administered, and what measures would best protect teachers and learners in such a scenario.
- b) Exploring the possibility of re-opening for the rest of the classes, and in particular, outlining what would be considered most appropriate health and safety measures for the full re-opening, and when such a re-opening should occur.
- c) Reviewing the accessibility and effectiveness of the on-going remote learning on syllabus coverage, from the angle of the **2030 Agenda for Sustainable Development** wherein 193 United Nations Member States, with Kenya on the driving seat, pledged to ensure that on matters development and Education *No One is Left Behind* and by State Parties committing to “endeavour to reach the furthest behind first” in such development processes.

Highlights of feedback per objective

To assess the possibility of recalling National Examinations Classes (Std 8 and Form 4) back to schools to continue with syllabus coverage and prepare for examinations.

Majority of the respondents noted that syllabus coverage should not be done hurriedly to enable the candidates do the National examinations.

The national exams should only be done after the syllabus has been adequately covered by all candidates in all regions taking into consideration the time/duration that has been lost.

On when the examinations KCPE & KCSE should be administered, 10% of the respondents indicated that administration of National examinations should continue as planned while 20% indicated that exams should be done towards the end of the year that is late November to early December 2020, however, 70% of the respondents indicated a need to postpone examinations to January to April 2021.

The respondents noted that national examinations can only be conducted when all learners have adequately completed the syllabus. As of now the learners have not covered the necessary content and there is no adequate time for preparation then national examinations should be postponed.

They also noted that national examination should remain postponed until pandemic is fully controlled, schools are reopened in good order and adequate time is given for the syllabus coverage.

In addition respondents noted that National Examination should not be a priority over lives of learners and teachers. The learners should be prepared sufficiently for such a milestone unless the mode of assessment is revised to address existing circumstances occasioned by COVID-19. The National Examination can therefore be under taken in January-April 2021.

The study sought to establish what needs to be put in place before re-opening examination classes (standard 8 and form 4), the responses were as follows -

Provision of running water- The schools should have constant supply of running water to aid frequent hand washing by learners and teachers.

Consistent and adequate provision of soap.

Automated Water dispensing equipment using the recent innovation.

Hand washing waters jericans.

Health/safety needs (key preventive and testing equipment) in each learning institution such as temperature thermometers.

For maintenance of Social distance -

A standard classroom should accommodate 15 learners. The learners' classrooms should be spacious enough to ensure 1.5 metres apart sitting arrangement.

Staffroom for teachers should also be decongested to allow the observation of social distance rule.

More classrooms should be constructed and more desks, chairs provided.

Provision of PPES for all teachers, learners and non-teaching staff in all institutions.

Capacity Building and Induction - all teachers and non-teaching staff should undergo an induction by the health workers on issues related to COVID - 19 prevention.

Inspection and Testing - testing of all candidates and teachers prior to recalling so that as learners reporting back should generate negative test results.

Regular temperature taking equipment should be supplied to all institutions.

Re-assessment and disinfecting the schools before reopening for suitability of learners and teachers by the public health officers from the ministry of health should visit the school to

Government to set up Covid 19 response booths in each sub-county to attend to ailing students and evacuation of all students and teachers in hot spots areas after testing negative.

Provide residential facilities for teachers and students and other workers e.g boarding rooms to limit movement to and from school daily as a preventive measure for workers getting into contact with infected persons in the community which could later spread to teaching and non-teaching staff and learners.

In addition all measures set by the Ministry of Health must be followed and implemented in all learning institutions

To Explore the possibility of re-opening for the rest of the classes, and in particular, outlining what would be considered most appropriate health and

safety measures for the full re-opening, and when such a re-opening should occur.

The study sought to establish the considerations for the possibility of re-opening other classes. The respondents gave the following health and safety consideration after which the reopening of other classes could be considered.

Infrastructural development and Provision of enough facilities in schools

- There is need for provision of enough facilities to allow social distancing to be observed. There is need for more classrooms, desks, chairs, tables, books which is an upheaval task at the moment.
- Class sizes to be reduced to allow social-distancing and more teachers employed
- Provision of adequate water and water containers in all learning institutions.
- Provision of fumigation chemicals and fumigation equipment to schools which will enable school to have regular interval of fumigation of school facilities
- Provision of standardized hand sanitizers.
- Provision of protective gear and masks for all teachers and learners.
- Regular fumigation of school facilities such as classrooms, laboratories, school offices, latrines, dining halls and dormitories.

Policy guidelines

- Provide sufficient workable policy guidelines on social distancing in shared places, facilities and learning resources in schools.
- Put in place practicable Safety and hygiene measures such as sanitizing booths to safeguard the teachers, students, families and general community.
- Provide sufficient bus transport for all students in day schools with sanitization standards.
- Engage parents to ensure safety and hygiene at home in addition to sensitization of Parents/families on how to detect and handle COVID-19 cases

Mandatory and regular COVID - 19 testing

- Mandatory COVID - 19 testing of all learners and staff to be provided

with negative test results to facilitate re-admission by the school administration.

- Regular testing - the COVID - 19 testing should be done on learners and teachers and non staff after every two weeks.
- Provide counselling services to safeguard against fear and stigmatization while Testing modalities be amplified at each school and provide a fully-fledged clinic to deal with preventative measures.
- Teachers be given risk allowance with full medical cover incase of the outbreak of the pandemic.

Public health officers

- Hiring of adequate public health officers to oversee regular checks and balances in all public and private institutions in terms of observing the measures to flatten the COVID-19 curve.

Localization of learners and teachers

- To avoid spread of COVID-19 from hot spots to other areas teachers should teach in their locality. TSC should re-organize staffing to ensure zero movement.
- Learners who are travelling to National schools outside their counties, extra-county schools should be distributed to the national and extra county schools within their counties.
- Schools should be isolated to accommodate learners and teachers who are positive cases.
- Re-admit learners in the nearest local schools and all county schools should be made full boarding to admit students only from that county.
- National and extra-county schools to re-admit students from that county or nearby county but not from reported case of pandemic counties.

The study also sought to establish when school re-opening should be for other classes. All the respondents agreed that other classes should reopen when either of the following has been observed;

- When the COVID-19 infection curve has been flattened and the highlighted mitigation measures have been adequately met.
- When a vaccine is available and the pandemic is under control with the

level of Covid 19 is negative in 90% of all the counties and when the Country's has a capability of preventing and treating Covid-19 cases.

- Finally when the country controls and handles cases of limited infrastructure in schools.

Respondents indicated that safety and personal health comes first before Education. Hence with the current trends Covid-19 in the country, it would not be right to risk 15 million school going students/pupils.

In addition teachers noted that reopening of schools involve a lot travelling particularly secondary and tertiary institutions hence creating a fast avenue for the spread of covid-19. Further, learners in the lower classes may not be able to strictly adhere to the rules especially on social distance due to their tender age. In addition due to the big number of learners in the schools, social distancing in our institutions is next to impossible unless the government implements other ways and methods of learning. Realistically COVID 19 control can't be maintained in our learning institutions considering number of students. It's even more challenging in boarding schools with overcrowded dormitories and dining halls.

All the respondents therefore noted the re-opening of schools should be a well thought out issue since cases of infections are on the rise rather than decreasing. Accordingly schools should not re-open until all measures to control and prevent the virus transmission have been put in place and well adhered to in the communities. Thus, in the meantime, schools should remain closed.

To Review the accessibility and effectiveness of the on-going remote learning on syllabus coverage

The study sought to establish the accessibility and effectiveness of on-going remote learning on syllabus coverage. 100% of the Teachers, Branch Executive Secretaries and BECs, noted the ongoing online learning programme has little impact on syllabus coverage, since it is not accessible to all learners. The study established that there is no learning going on in most homes in the urban poor, rural and marginalized areas. This concurs with the recent survey that indicated that only about 22% Kenyan learners can access the E-Learning sessions. The respondents further noted that most households do not have smart phones, TV or Radio, while those with a

smart phone/ or mobile phone have only one which is shared between several members of the family making it impractical for learners to have access to the phone.

One high school teacher noted though the school is using various forms of online teaching; whatsapp, Zoom, zerraki app, Facebook, audio and video recordings and other online materials. They have still found it impossible to reach all the students. the teacher noted that *“Out of 380 students, we can say only 100- 200 are taught daily. Though we are committed to the course to try and reach all the students at all cost, however one thing we have discovered is that network connectivity in some areas is not good and some households cannot even afford smart phones etc”*.

On accessibility, effectiveness and affordability of remote/E learning, the respondents gave the following claims;

- Accessibility is a key problem hence very ineffective with over 80% of students losing on syllabus coverage. It is fairly accessible in urban rich centres while most urban poor, rural and marginalized areas are totally unreachable due to unavailable internet connectivity and electricity.
- Not effective to Northern part of Kenya, because not all households have access Television, Radio and smart phones. The Electricity coverage is limited and Network problem exist with most areas having access to 2G network. This was also established in the rural areas in Elgeyo Marakwet where learning is totally unreachable due to unavailable internet connectivity.
- A respondent from Sotik noted remote learning is almost nil in remote areas with only a less than 20% having access to the programmes.
- 80% of the homes for the urban poor, rural and marginalized areas, are not conducive environment for learning. Students’ concentration in the few home were E learning is accessible tends to be low due to environment interferences.
- On effectiveness, teachers noted though the teachers in the programme may cover the syllabus there are possibilities that most learners are not learning due teacher-learners contact which is poor and not available since there is no meeting point between the teachers

and the learner which is essential for clarification of learners' issues. Majority also noted learner's questions go unanswered since there is no feedback. The teachers noted that they can only assume that learners are learning. Thus the effectiveness of the programme is questionable.

- The remote learning programme favours urban/town children while the urban poor, rural/informal/slum learners are negatively affected due to lack of electricity/electronic devices in their poor households.
- Poor learning experiences: The weak /special needs learners lack guidance, supervision, monitoring& remedial /recaps).
- System is was noted to be unreliable, biased/subjective.
- Affordability of the data bundles: the cost of the data bundles is too high for the most households.

On the government preparedness to handle the Covid -19 pandemic in the education sector as a concern raised by teachers and union officials.

Though the Executive Secretaries and the Branch Executive Committees appreciates the government efforts through the ministry of health to control the spread of the pandemic. The basic skills with the slogan "stay safe stay at home", washing hands, use of facemasks, use of sanitizers and social distancing have to a greater extent slowed down the spread of the COVID 19 pandemic. The closure of learning institutions has seen learners and teachers stay safe at home to avoid being infected.

The support by well-wishers to provide the free washing tanks, masks, soap and sanitizers and setting them up in key areas for the vulnerable members of the different communities' residents to use cannot go without being recognized. However even though the government through the ministry of health has given these directives from the survey the respondents noted people are not consistent in their use. Poverty has been a great enemy to this.

The curfew directive from 7.00 pm to 5.00 am is non-consequential because majority of the people in rural areas traditionally are at home at those hours. Likewise, the lockdown in counties has borne no fruits since there is laxity by law-enforcement officers. People still travel in and out. These have been witnessed across where even the infected travel only to fall ill and die at home.

Observation from findings:

From investigations across, the government has done little to educate the rural masses on COVID - 19. People are told to remain at home but no affirmative action for the provision of the basic needs. In addition the law enforcement officers at times use excessive force to deal with non-compliance.

Due to the above mentioned the government is not fully prepared to handle the pandemic for the re-opening of the schools in that:

1. The government has not showed any seriousness in the provision of the basic needs to ensure the people remain at home for safety likewise no alternative measures to ensure learners remain in school if schools or learning institutions shall be opened.
2. No health facilities and personnel with proper gears or attire to provide the necessary services and medical attention especially in the marginalized communities or the rural areas.
3. Key stakeholders have not been involved to interrogate proper measures to be put in place for the control of the pandemic.

CHAPTER 4

KEY & URGENT ISSUES IN EDUCATION

a. Reorganizing 2020 School Calendar

The presidential directive on 15 March 2020 and the subsequent gazettelement of the Order No.MOE.HQS.3/6/1(5), that learning in all education institutions be suspended with immediate effect following the outbreak of Coronavirus has adversely affected the larger Education sector, including the term dates/calendar of events for Pre-primary, Primary, Secondary and Teacher Training Colleges as was set out through a Circular Ref No. MOE.HQS/3/6/72 dated 06 September 2019.

The opening of the Second Term was rescheduled from 04 May 2020 to unknown date as the ministry continues to monitor the Covid-19 situation. In the meantime, the ministry through Kenya Institute of Curriculum Development (KICD) has tried unsuccessfully to deliver the curriculum and also assist learners to cover the syllabus through virtual learning and other digital platforms including TV, radio, Kenya Education Cloud, online learning and digital contents in CDs.

Virtual learning has had its challenges like radio and TV lessons are **NOT** properly designed to cater for learners with varied needs and abilities per County; besides, the adequacy of the timetable for learning as per the syllabus was inaccessible to majority of learners, time allocated was inadequate, there was unequal distribution of subjects, and not all lessons are covered in the timetable.

As per the findings¹ by the Directorate of Quality Assurance and Standards in the State Department of Early Learning and Basic Education, majority of parents/guardians are not at the forefront of their children learning at home, while quality of supervision of virtual learning by teachers is extremely low. There is limited communication system between schools and learners, and assessment of learners while at home is extremely low.

¹ *Analysis based on the findings by the Directorate of Quality Assurance and Standards in the State Department of Early Learning and Basic education, April 2020*

Conclusion/Recommendation

The combination of the on-goings - and the uncertainty surrounding the containment of the infernal virus which is on a spiral - calls for the immediate readjustment of the 2020 School Calendar. All co-curriculum activities should be dropped forthwith as they are no longer a priority. Kenya National Examination Council (KNEC) should reset national exams as the syllabus will not be covered adequately and promptly as required. Moreover, the period allocated for exam practical has since expired which calls for extension of assessment period. In light of this, we call on the Government **NOT** to reopen the schools until such a time when the pandemic will be fully contained or brought under manageable levels.

Upon reopening of schools, coverage of the curriculum should resume from the point of coverage as at March 15th, 2020 being the last date students attended lessons before the Head of State ordered schools closure.

The School Calendar should be revised only after the scourge has been brought under control. The revision of School Calendar should be based on **CONSENSUS**. Any attempt to revise the Calendar leading to reopening of schools without **CONSENSUS** from the teacher unions, Parents Association, Head teachers' associations and other principal players in the larger Education sector will be rejected. In the current situation, and in the ever-changing circumstances, it becomes extremely difficult to state what dimension the infernal virus will take, hence it will be foolhardy to talk of when schools should reopen and national examinations conducted. Kenya Certificate of Primary Education (KCPE) and Kenya Certificate (KCSE) in the prevailing circumstances should be postponed to allow sanity to be restored, so as School Calendar is worked out, and new examination time tables redrafted. Toying with the idea of reopening schools in the current situation is an exercise in futility, and indeed counterproductive as the virus is already threatening the survival of humanity.

Our position is further supported by health experts who have since indicated that reopening of schools in June will lead to a spike in Covid-19 cases. Students/pupils should be enabled to under-take catch-up classes to make up for the lost time in the 2020 School Calendar. The priority should not be about reopening of schools, we would rather have all children repeat class rather than opening a window for their deaths. Lost time can be remedied but lost lives cannot.

b. Syllabus Coverage

After President Uhuru Kenyatta directed that all learning institutions be closed following the outbreak of coronavirus, over 15 million learners have remained at home since mid-March. With the COVID-19 figures expected to rise due to community transmissions, much of the second term will be eaten away and preparations for end of year national examinations hampered.

Closing schools is one of the major measures imposed to contain the virus and potentially remains one of the last to be lifted. Schools and colleges are considered high-risk areas because of the many learners they hold, and who come from different backgrounds.

The standards of education are regulated by school syllabus implemented through school curriculum that endeavour to inculcate knowledge, skills and attitudes through various subjects (Chinyani2013). The success in educational institution is measured by the performance of students in external examinations and thus provide basis for evaluating the curriculum both at local and national level. Thus, it is emphasized that certain content in the syllabus should be covered, and specific concepts and skills mastered by students, who are tested by the Kenya National Examinations Council after eight years and four years (KIE, 2002) of primary and secondary education respectively. Notably, in the wake of Covid-19 pandemic, Kenya came up with the ambitious remote learning initiative that was expected to catapult the continuation of syllabus coverage and keep learners in the learning mode across the country.

However, universal access to remote learning has been limited and has greatly hampered the timely syllabus coverage. Owing to factors such inadequate resources, access to Radio, Tv, Smart phones, electricity, internet and finances to purchase bundles, and timeliness of lesson remain unrealistic and thus syllabus coverage is limited.

From the beginning of the year Northern and North Eastern regions experienced a lack of teachers due to terrorists attack that led to mass transfer of teachers hence schools did not cover the syllabus due to lack of teachers

Only a limited number of learners [22%] have access to remote learning while the majority in rural and urban poor have no access since most of the homes lack electricity, internet bundles (finances), radio, television, smart phone etc. Besides, the MOEST report on e-learning found out that some 18% of the learners do not have access to the online learning timetable.

Lack of learners' involvement in the lessons could mean the teachers are teaching but learners are not learning since teacher learner interaction is key for learners to learn. The teachers have to be virtually present. There is a lot of assumption on the side of the teacher that learners are learning. MOEST study noted that 77% of participants indicated that teachers cannot tell whether students are learning at home. Hence a challenge on learner supervision of the remote learning programme. The teachers are also not in a position to monitor learning due to lack of an appropriate approach to assess learners attending to the lessons.

Lack of involvement of all learners. The special needs learners and slow learners have not been taken care of in the remote learning. Learners with varied needs and abilities were not addressed as noted by the MOEST study.

Inconsistencies of the lessons. Inadequate time allocated for lessons, unequal distribution of subjects, while also not all lessons are covered in the timetable. Hence hindering concentration of learners and support of all learner categories.

Conclusion/ Recommendations

It is evident that majority of the learners have no access to remote learning programmes, special needs learners are not addressed while there is great assumption that learners with access to the programme are learning. Thus upon resumption or reopening of schools, syllabus coverage should commence from where the teachers and learners left on 15 March 2020.

c. Fate of Boarding Schools

In 2018 there was a proposal made by the MoEST and supported by a number of Members of Parliament aimed at enforcing a total ban on boarding in all primary schools to allow parents to spend more time with their children. This meant that students would only be in boarding schools

for a maximum of three years during the last three years of Basic Education. However, with the hiccups facing the rollout of the new education system of 2-6-3-3 under Competency Based Curriculum, coupled with other logistical challenges, it never came to pass.

Boarding schools according to proposal by Prof Laban Ayiro Task Force report are congested and expensive to run. Besides, long spells in boarding schools and limited contact with parents have been blamed for the wave of unrest that have gripped schools.

Boarding schools should not be closed down permanently due to fear of spread of the Coronavirus. Implementing containment measures against the spread of pandemic as recommended by World Health Organization, World Bank, UNICEF and UNESCO is the only solution as the diseases caused by the virus will be with us for a long time.

Boarding schools are equally important as students can focus better on their studies because things like televisions, radios, video games, child labour, peer pressure and other destructors are limited. It has been proved scientifically that young learners usually perform better academically because they live in an environment that is conducive to learning which of course is boarding school.

Boarding schools have more extra-curricular activities than day schools. The facilities have the responsibility to keep your child busy at all times. The child will have the opportunity to learn new things, hobbies, get involved in new activities, thereby developing non-academic skills which are valuable to the outside world.

Moreover, boarding schools help students build valorisation and recognize their self-worth. As they participate in a community in which they are seen as equal (as opposed to just the child being taken care of), they recognize what they can contribute and how they affect people around them.

Conclusion/Recommendation

Therefore, boarding schools cannot be wished away or banned for that matter under the pretext that they will act as a brooding ground for Covid-19 pandemic. Once the spread of the virus has been brought to manageable levels, boarding schools should be allowed to operate under WHO, UNESCO, World Bank and UNICEF recommended containment measures.

d. Access to Virtual Learning Among the Poor

Children from disadvantaged backgrounds are the most affected lot as they are faced with myriad challenges in this period of Covid-19 pandemic. As observed by UNESCO -

'...disruptions to instructional time in the classroom can have a severe impact on a child's ability to learn. The longer marginalized children are out of school, the less likely they are to return. Children from the poorest households are already almost five times more likely to be out of primary school than those from the richest. Being out of school also increases the risk of teenage pregnancy, sexual exploitation, child marriage, violence and other threats...'

Distance and e-learning is only effective for teachers, students/pupils and families with adequate electricity, internet connectivity, computers, smart phones, laptops, tablets, television sets, radios and physical spaces to work. Poor children cannot afford or access all these gadgets and the time required for virtual learning.

Attempts by KICD to use a variety of methods to deliver virtual lessons has failed miserably according to a research² conducted by the Directorate of Quality Assurance and Standards in the State Department of Early Learning and Basic Education. The data provided clearly indicates that poor families lack the electronic gadgets to facilitate them access virtual learning.

Children from poor background will continue facing these challenges now and in future until mitigation measures are put in place, for instance, reviving the collapsed Digital Learning Project, and the Government to ensure adequate funding to the education of poor children, and continuous support to marginalised communities.

The pandemic has the potential to worsen the education of children from poor families if we do not restore normalcy in teaching and learning. The pandemic will lead to losses of learning time; we shall witness increased school dropout rates due to learners indulging in destructive activities such

² A Report on Online Learning Progress during COVID – 19 Pandemic in Basic Education Institutions in Kenya, Ministry of Education, April 2020.

as drugs, alcohol, pornography, bad literature, early marriages, early pregnancies, bad company, peer pressure, Female Genital Mutilation and a wide-range of criminal activities.

The middle-income and poor families have been the most devastated Kenyans following the outbreak of Coronavirus. Majority have either lost businesses or jobs, hence leading to a situation where their incomes have been depleted. By the time normalcy is restored, these two groups which comprises over 40 million Kenyans will be paupers beyond imagination - they will be a devastated and ruined society who will need to be cushioned by the Government against the harsh realities of life.

Conclusion/Recommendation:

While the top priority for the Government right now is to guarantee sufficient resources for health services, we must also ensure that funding and support continues for the education of poor children. Leadership, financial and material resources for teachers are necessary to make sure that quality teaching and learning can continue once the crisis is addressed. Parents in marginalised areas and from poor background, including their children and teachers will also need high-level counselling to ward off stigmatization, and also assist in mending the family fabrics. A STIMULUS package for Education should be set up to ensure that Kenya fulfils its obligation of *NOT leaving anyone behind, by starting from the furthest FIRST*.

e. Digital Learning Programme in Public Schools

The government rolled out an ambitious programme called the ICT Integration in Primary Education (Digital Learning Programme) whose main aim was to align integration of ICT into teaching and learning in Primary schools. The components of this programme included: Improvement of ICT infrastructure; Development of digital content; Capacity building of teachers, and the Procurement of ICT devices. The noble programme has, however collapsed largely due to mismanagement, ineptitude, greed and lack of foresight.

Conclusion/Recommendations

The Government should resuscitate the Programme, and ensure early learners access digital materials through steady supply of laptops per child,

and any other supporting gadgets to facilitate teachers to effectively deliver lessons. This will ensure effective coverage of the syllabus through a holistic, free of charge, equitable, standardized and in a qualitative manner.

Teachers should be adequately trained on Digital Learning Programme and also trained on the new teaching pedagogies for Competency Based Curriculum.

f. Health and Safety Measures for Schools

It should be noted with concern that majority of teachers in the Public Service are over 45 years of age, meaning they are vulnerable and susceptible to Coronaviruses (CoV) which are a large family of viruses that cause illness ranging from the common cold to more severe diseases such as MERS-CoV and DARS-CoV. Even if schools were to reopen today or tomorrow, teachers who are above 50 years should be exempted from duty until the pandemic is fully contained. Tutors who are 55 years and above should be encouraged to take early retirement. Teachers Service Commission should recruit young and energetic teachers who are resilient to Coronaviruses and other related diseases. Moreover, old teachers should serve in their localities permanently, and the rest of the teaching staff should be localized within their communities. Learners should also be localised as much as possible to attend schools in their communities.

The outbreak of Covid-19 has certainly caused a degree of inconveniences in the lives of many Kenyans, but all is not lost. Key elements which should be considered after normalcy has returned, and Covid-19 has been brought under manageable levels, include:-

- i. Each school to constitute a TECHNICAL TEAM with members drawn from Board of Management, Parents Association, KNUT, Head Teachers Associations and religious organizations to oversight the day-to-day school operations.
- ii. Prior resumption of teaching/learning, school buildings and the entire compound should be disinfected. The exercise should be conducted every evening after school time.
- iii. There should be screening of pupils/students, teachers and Non-Teaching Staff every morning and evening to guard against occurrence of the virus.
- iv. At least three days to resumption of teaching/learning, the school management should be able to take teaching and Non-Teaching Staff

through health regulations as recommended by WHO, UNICEF, UNESCO and World Bank to contain the spread of Covid-19.

- v. The Quality Assurance and Standards officers, BOM members, Public Health officials, KNUT, KEP SHA, KESSHA and religious organizations should regularly inspect school facilities with a view of establishing its health status and level of compliance.
- vi. Upon reopening of schools, it will be imperative for teachers, Public Health personnel, Quality Assurance and Standards officers, and Social workers to talk with children about why certain actions and measures are being taken - and do so in a manner that expresses care and concern, rather than fear.
- vii. The management should stagger school start, break and dismissal times so that learners maintain social distancing - playgrounds closure could be necessary when school reopen.
- viii. Classrooms should be “Reconfigured” to facilitate social distancing, and reduce physical contact.
- ix. No congregated meals.
- x. Field trips should be cancelled for a considerable period of time.
- xi. Limit non-essential visitors.
- xii. Children with flu-like symptoms should be treated with extreme care, and without stigmatization.
- xiii. No school assemblies, Physical Education and choir classes.
- xiv. Teachers and the school management should know pretty in advance that the intervening period will be stressful, and some children will be much more sensitive than others to change, but with time they will adjust and prove adaptable to the prevailing situation.
- xv. School boards supported by the **TECHNICAL TEAMS** should be prepared to confront/address potential logistics nightmares when schools reopen.
- xvi. It should be mandatory for every teachers, learner and Non-Teaching Staff to be taken through UNESCO, UNECEF, WHO and World Bank Covid-19 Education Response Manual.
- xvii. Teachers, Non-Teaching Staff and the members of the **TECHNICAL TEAMS** assigned to schools should be provided with Personal Protective Equipment (PPE) at all times for emergencies, and for their general safety.
- xviii. School Feeding Programme should be activated to ease financial burden on parents/guardians and school management.
- xix. There should be steady supply of fresh water in all schools.
- xx. Transport and safety of students has to be addressed.

- xxi. Children with Special Needs should be accorded preferential treatment unlike before during Covid-19 and post-Covid-19 period.
- xxii. Schools which had been converted into Quarantine centres should be vacated and revert to their former status immediately, and fumigated under the supervision of the Public Health officials.
- xxiii. More importantly, counselling will be highly appreciated since closure of schools due to infernal virus has heightened stress among candidates and other learners - it is an anxious time for students/pupils who are not even sure whether they will ever sit for examinations. Teachers have to assess the impact of Covid-19 on the mental-wellbeing of learners.

Conclusion/Recommendation

As the Ministry of Education Science and Technology continues to rally stakeholders to ready for reopening of schools, KNUT strongly feels it is **NOT** quite appropriate to recall learners to resume lessons. Schools should **NOT** reopen now as the spiral of the virus is posing worries. The decision could easily prove fatal to the nation; the Government priority should **NOT** be placed on resumption of teaching and learning, but normalising the situation, and bringing the scourge to manageable levels. In addition, the MoEST should engage in an inclusive, consultative and consensus building process with KEY stateholders including unions and civil society, to constantly review the situation based on scientific data and evidence, and advice appropriately when the right time comes.

g. Financing Teaching and Learning During and Post COVID-19

At the time Kenyans emerge from the scourge, they will be a devastated and ruined society who will seriously need to be cushioned by the Government against the harsh realities of life. Parents/guardians will need to be cushioned when it comes to paying school fees and other related overheads.

Schools, colleges and universities will be faced with excruciating starvation of funds and other accompanying social challenges. The challenges are bound to affect teaching and learning especially in Government-funded institutions across the country. This calls for the Government to put in place mitigation measures before too long.

Conclusion/Recommendations:-

KNUT, UASU and KHRC therefore propose that the Government starts in earnest putting in place mitigation measures to guard the poor families against devastating effects of the aftermath Covid-19 pandemic.

We propose that Covid-19 Emergency Response Fund established by the National Treasury to mobilise resources to manage the Coronavirus pandemic should draw up a **SPECIAL BUDGET** to cushion Public schools, Teacher Training Colleges and universities against high cost of operation brought about by partial lockdown.

Enormous resources are required for this particular **BUDGET**, and it is our strong belief that the Government alone cannot manage this challenge, especially at this time when the economy is tanking. The Covid-19 Emergency Response Fund has to bring on board individuals, corporate organizations and development partners to support the course.

Moreover, to keep the Education sector humming amid the Covid-19 pandemic, and thereafter, we propose that the Ministry of Education Science and Technology draws up a **STIMULUS PACKAGE** fully supported by the National Treasury. Legal and policy support must be given to both the Ministry of Education and the National Treasury to operationalize the **SPECIAL BUDGET** and **STIMULUS PACKAGE**. To be more precise, it is the National Treasury that should initiate such interventions to cushion the sector against the effects of the Coronavirus pandemic.

The Union further proposes that teachers should be included in developing Covid-19 education responses as tutors have taken the leading role in preparing and implementing rapid and innovative responses to the current situation. To be successful, Covid-19 responses need to be developed with the full involvement of teachers and their representative organizations such as KNUT, Universities Academic Staff Union (UASU), Kenya Primary School Heads Association (KEPSHA) and the Kenya Secondary School Heads Association (KESSHA).

We propose that teachers should be accorded greater support and flexibility especially those who work in remote areas or marginalised communities, to ensure that disadvantaged children do **NOT** miss out on

quality education in the wake of Coronavirus pandemic. The Government can harness Public-Private partnership to supply the needed technology and the finances required. However, Public-Private partnership should be carefully regulated and monitored.

The **AFTERMATH** of Coronavirus pandemic which is expected to rise beyond human comprehension should be dealt with through a **SPECIAL BUDGET** of the National Treasury and the **STIMULUS PACKAGE** of the Ministry of Education. We cannot allow the Education sector to be in a standstill state for too long, moreover, for these proposals to be actualized and accordingly stand the test of time, must be anchored in **LAW**.

More importantly, the Ministry of Education Science and Technology, the National Treasury and the Covid-19 Emergency Response Fund need to be exclusively focused on the Education sector, bearing in mind that Education drives economic development and transforms lives, besides being at the heart of UNESCO's mission to build peace, eradication of poverty, and ensures sustainable development. UNESCO believes that Education is a human right for all throughout life, and access must be matched by quality.

The School Calendar should be revised only after the scourge has been brought under control. The revision of School Calendar should be based on CONSENSUS. Any attempt to revise the Calendar leading to reopening of schools without CONSENSUS from the teacher unions, Parents Association, Head teachers' associations and other principal players in the larger Education sector will be rejected. In the current situation, and in the ever-changing circumstances, it becomes extremely difficult to state what dimension the infernal virus will take, hence it will be foolhardy to talk of when schools should reopen and national examinations conducted. Kenya Certificate of Primary Education (KCPE) and Kenya Certificate (KCSE) in the prevailing circumstances should be postponed to allow sanity to be restored, so as School Calendar is worked out, and new examination time tables redrafted. Toying with the idea of reopening schools in the current situation is an exercise in futility, and indeed counterproductive as the virus is already threatening the survival of humanity.

CHAPTER 5

WHY SCHOOLS SHOULD NOT RE-OPEN AS OF NOW - a Global Scan

Since lockdowns were declared across the globe, and various safety measures to prevent the spread of the novel virus put in place, Covid-19 cases reduced a great deal. Health authorities in respective countries released guidelines to be observed in reopening of schools which included opening of windows to ventilate classrooms, maintaining physical distance, checking temperatures daily, washing of hands and wearing face masks among others.

Shockingly, the countries which have reopened schools despite observing the set guidelines have continued to witness a rise in new infections of the infernal virus. Countries like China, Japan, Germany, Taiwan, Norway, Czech Republic, Denmark, South Korea, Poland, Iceland, Australia among others were tempted to reopen schools due to a decline in the rate of Coronavirus transmission within their territories. These countries thought they had taken control of the virus, so they could now open up the society little-by-little. For instance, within days of reopening of schools, France had recorded over 70 new cases of Covid-19 in schools.

Despite social distancing in classrooms and observing other related health measure, some children caught the disease. Health experts said it was inevitable this sort of thing would happen. Affected schools have since closed. In Denmark, parents have raised concerns that their children were being used as “guinea pigs” to test Government policies on reopening schools.

Researchers across Europe now say, schools should not be reopened without any clear scientific guidance about the risk of triggering a second wave of the Covid-19 which will infect teachers and Non-Teaching Staff in the process.

It is known that children are less likely to become ill if infected with the Coronavirus, but researchers are still unsure how easily they can infect others. *Some research indicates that children are far less likely to become infected compared with adults, but other studies suggest that when they do*

become infected, they carry as much viral load as an adult, and therefore pose a real risk of passing the virus to others, including their family members.

Either the Government puts the education of the children at risk by keeping schools closed until the virus is fully contained or the Government takes a risk with the safety of children - there is no easy answer, but our answer is - Schools should remain closed until such a time when the novel coronavirus will be fully contained. It is vital for children to get back into the classroom when it is safe to do so. It is not possible to recover lost lives of teachers and learners.

Illuminating research³ carried out by a team led by a German Coronavirus expert, Christian Drosten at the Charitie Hospital in Berlin found no significant difference between any age categories, including children. It reveals that children may be as infectious as adults. Viral load in the very young do not differ significantly from those of adults. Based on these results, we have to caution against an unlimited reopening of ECDE centres, schools, colleges and universities in the present situation.

Conclusion/Recommendation:-

Schools should remain closed until the Covid-19 pandemic is brought under firm control. The risk of sending children back to school would cost the nation a great deal as it would be harmful to learners and their families in the long run. These will be terrible damage if we lose a generation of Kenyans if they are affected by the dreaded virus. Note, opening of schools could easily trigger a rise in Covid-19 cases.

³ April 2020

CHAPTER 6

INDEPENDENT TECHNICAL ADVISORY BY DOCTORS & HEALTH EXPERTS

KNUT, UASU and KHRC commissioned an independent analysis of various health factors to be considered before a decision on schools reopening can be entertained.

KMPDU team similarly did an incisive analysis on whether the government should re-open schools or not and what is required.

This chapter provides irrefutable analysis and medical expert opinion based on scientific research data and analysis -

- a) A team of doctors and public health experts from Moi University College of Health Sciences - Prof. Florentius Koech, Dr Mayra Maghasi, Dr Nicholas Kirui and Mr Preston Yegon - undertook a professional analysis on School Reopening Schedule in Kenya. The report produced by the team has been fully reproduced in here without equivocation -

Preamble

A novel virus emerged from Wuhan city, China named Covid-19 or 2019 nCov. The 2019 novel coronavirus was identified in China at the end of December 2019 and is a new strain that has not previously been seen in humans.

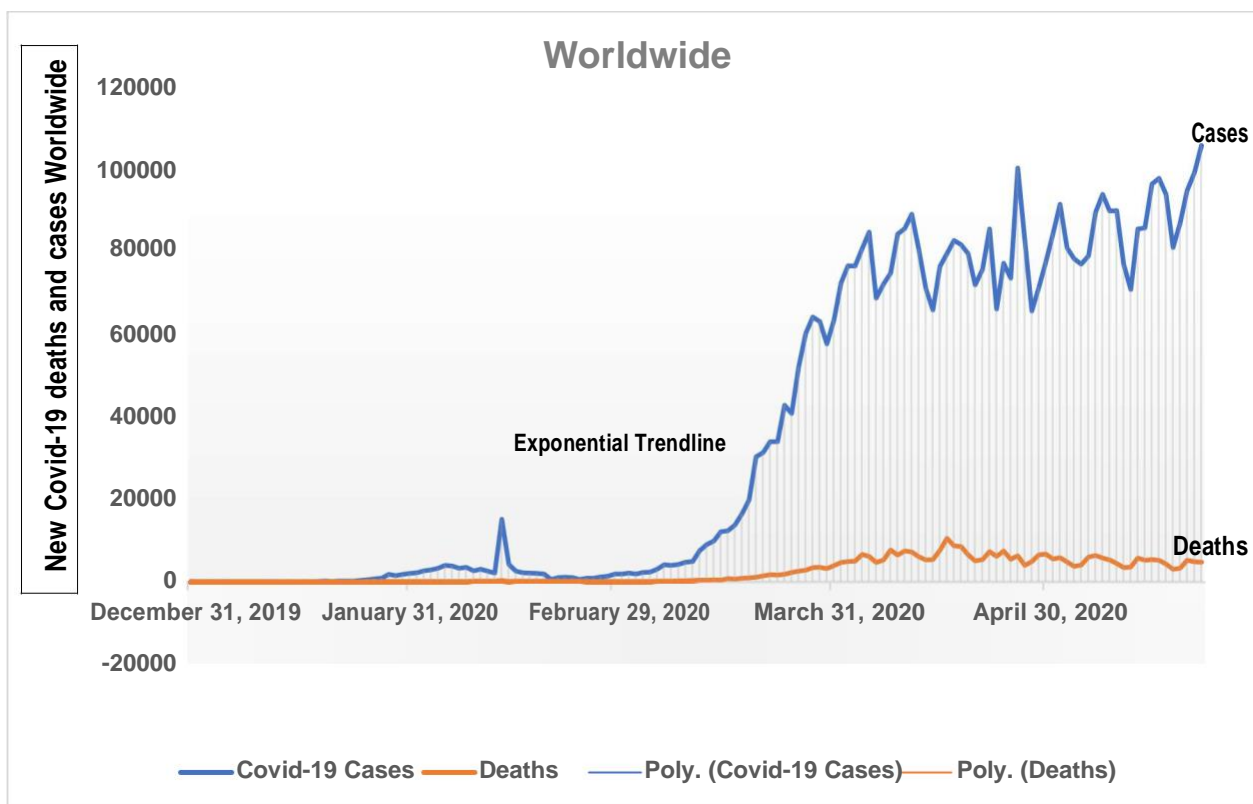
It quickly caused a lot of morbidity and mortality in that city leading to the city's lockdown for more than 3 months. It's a human to human transmitted disease and by May 2020 it had spread to all parts of the world leading to a pandemic that has resulted in over 5 million people infected and nearly 300,000 deaths worldwide.

The virus affects all age groups. Though the most affected, with the highest rate of deaths is in the older groups (≥ 50 years) and the frailer members of the community with pre-existing medical conditions.

Children are known to be mainly asymptomatic carriers. However, it has been reported that some children develop delayed reaction to the coronavirus that may lead to a life-threatening condition called the Kawasaki disease.

Worldwide, the number of cases and deaths reported on a daily basis continues to grow exponentially, as seen on the graph below. We are yet to see a flattening or a gradual decline in the curve.

A graph illustrating, on a daily basis, the number of new coronavirus cases and deaths in the World



The virus currently has no known cure. Worldwide efforts have been made to reduce its spread. Kenya has not been left behind. These efforts include;

1. Partial lockdown

This entailed cessation of movements in counties, where most of the cases emerged i.e. Nairobi Metropolitan area, Kilifi, Kwale, Mombasa & Mandera in an effort to curb the spread of the virus into other counties.

2. Social Distancing

The virus is easily spread in places where people aggregate and are crowded. To curb that potentiality the following measures have been put in place;

- i. Keeping at least 1-meter distance from one another.
- ii. Reducing the number of passengers in public and private vehicles.
- iii. Public gatherings restricted and dusk to dawn curfew implemented
e.g. in Pubs, funerals, restaurants closed or operating in restrictions, churches closed.
- iv. Learning centers such as schools, universities & conferences have been closed.

3. Hygiene

Frequent hand washing with soap/sanitizers has been implemented with hand washing stations setup at points of entrance in essential service facilities such as hospitals, retailers, markets etc.

4. Masks

Wearing one in public is now mandatory. This measure reduces the probability of contagion significantly, especially when all persons engaging wear one, in the right way and with regular changing.

5. Mass testing and tracing.

The aim is to enable isolation of asymptomatic people, treat those that are symptomatic effectively curbing the spread of the coronavirus

Opening of Learning Centers in Kenya.

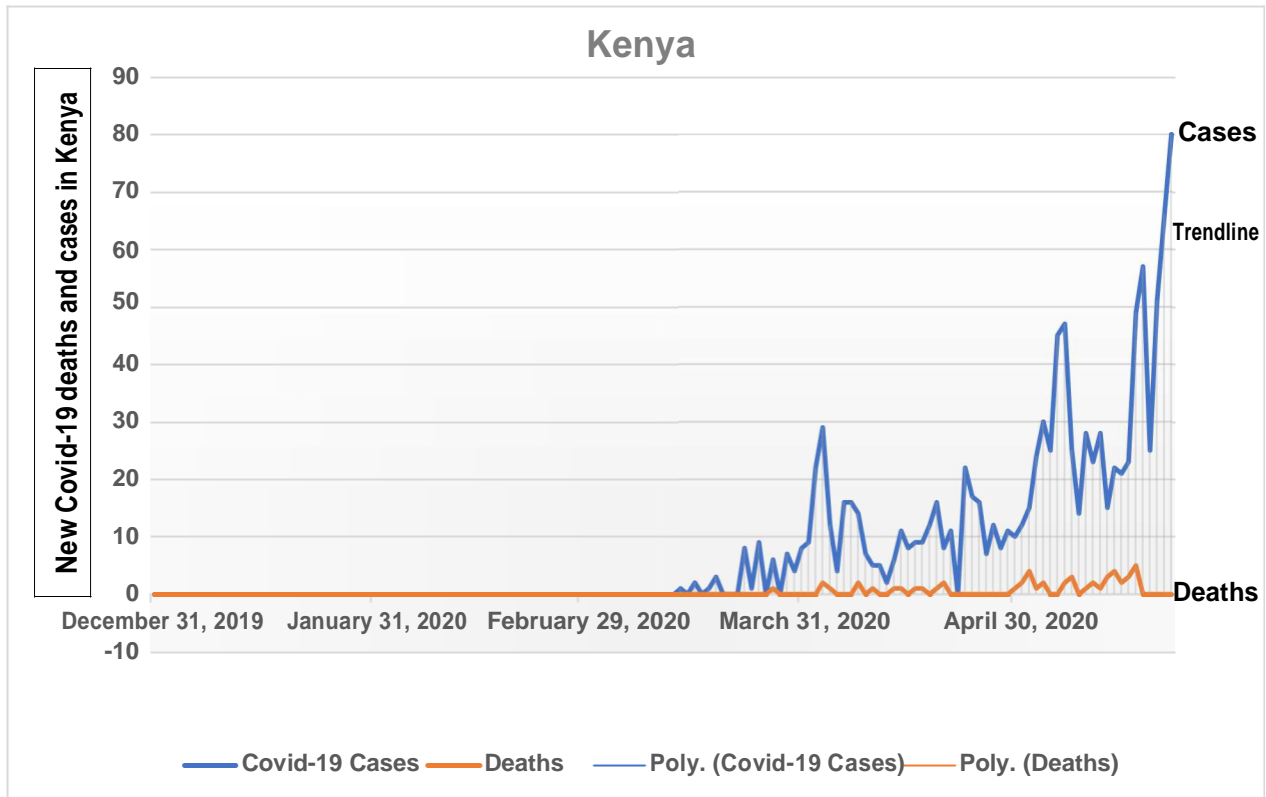
Education is a central activity in a child's life. It is appreciated that failure to continue with a proper education schedule may have negative repercussions to a child's future. However, it is impossible to engage in education if one's health is not at its optimum.

Kenya: Kenya has reported 1161 coronavirus cases, with 50 deaths as of May 22nd 2020.

Mid-April President Uhuru Kenyatta imposed a partial lockdown on the main coronavirus 'infected areas' and a nationwide dusk to dawn curfew. On May 16th the President extended those orders by 21 days in an effort to continue the fight against Covid-19 spread despite global pressures for easing measures against the disease.

Kenya is yet to see a flattening of the curve as new reported cases of Covid-19 increase gradually since the confirmation of the first case on March 13th 2020 as seen on the graph below.

A graph illustrating, on a daily basis, the number of new coronavirus cases and deaths in Kenya as at May 21st 2020.



Opening of Learning Centers Worldwide.

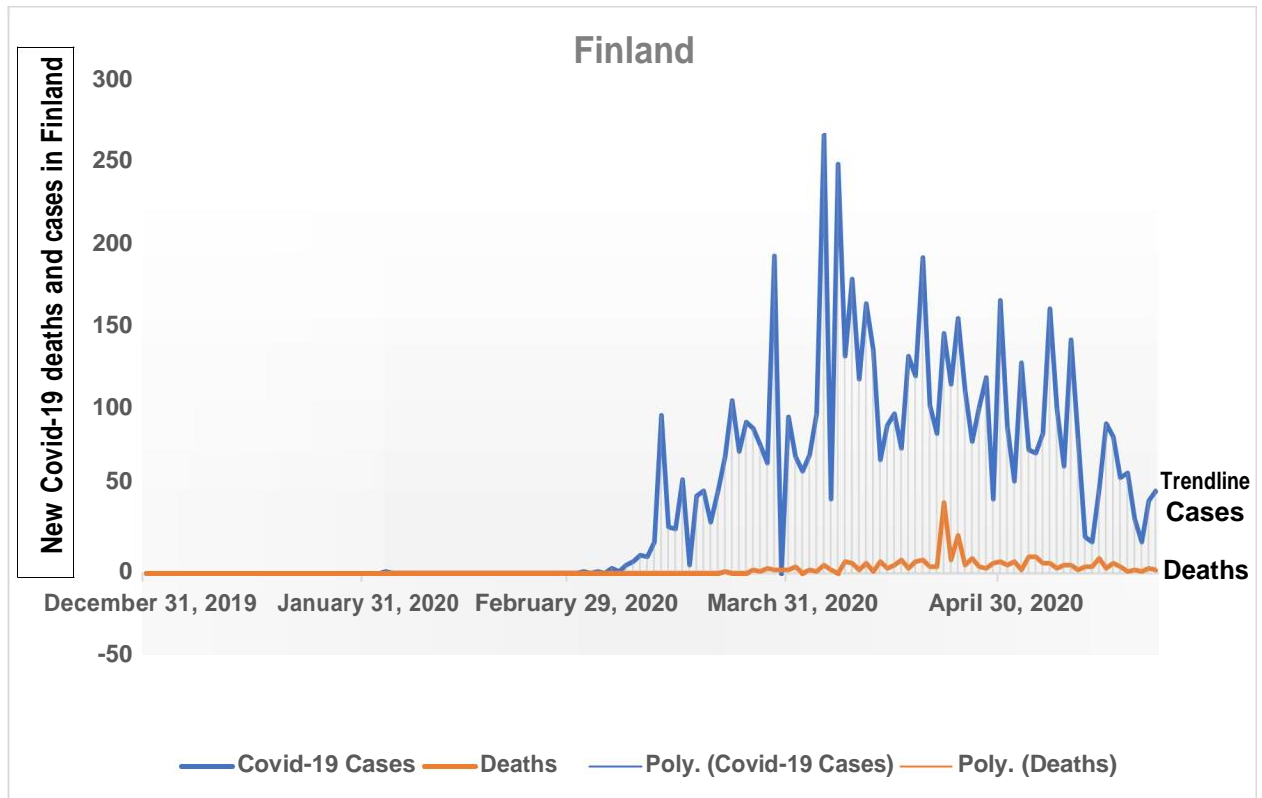
Worldwide, some nations were affected by the pandemic early e.g. S.Korea, Finland, France, China, Denmark who have been able to reopen schools after stringent preventative measures were put in place timely; social distancing, hygiene, lockdowns, masks, mass testing etc.

Finland: Finland has reported 6,537 coronavirus cases, with 306 deaths as of May 22nd 2020.

Finland reopened schools and daycare centres on May 13 after the spread of the coronavirus showed signs of slowing. However, reportedly about 17 students and four teachers at a school in Porvoo, Finland have entered quarantine after it emerged that a fellow student, they had been in close contact with tested positive for the coronavirus.

Evidenced by the graph below the number of cases in Finland are still relatively high.

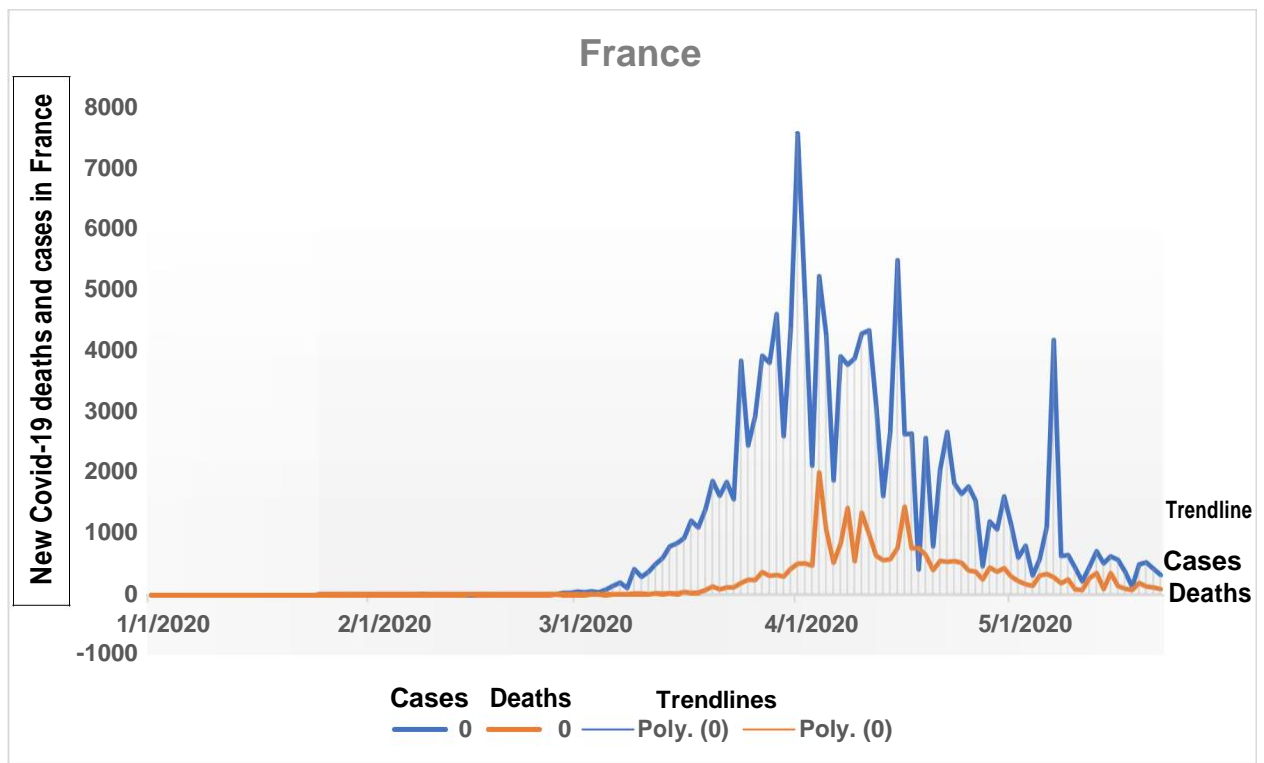
A graph illustrating, on a daily basis, the number of new coronavirus cases and deaths in Finland as at May 22nd 2020



France: France has reported 181,826 coronavirus cases, with 28,215 deaths as of May 22nd 2020.

Early this May France reopened schools for some lower grades. However, France have reportedly registered 70 new cases linked to the reopening of schools. Given the 2-14 days incubation period of the virus, those cases could rise.

A graph illustrating, on a daily basis, the number of new coronavirus cases and deaths in France as at May 22nd 2020.



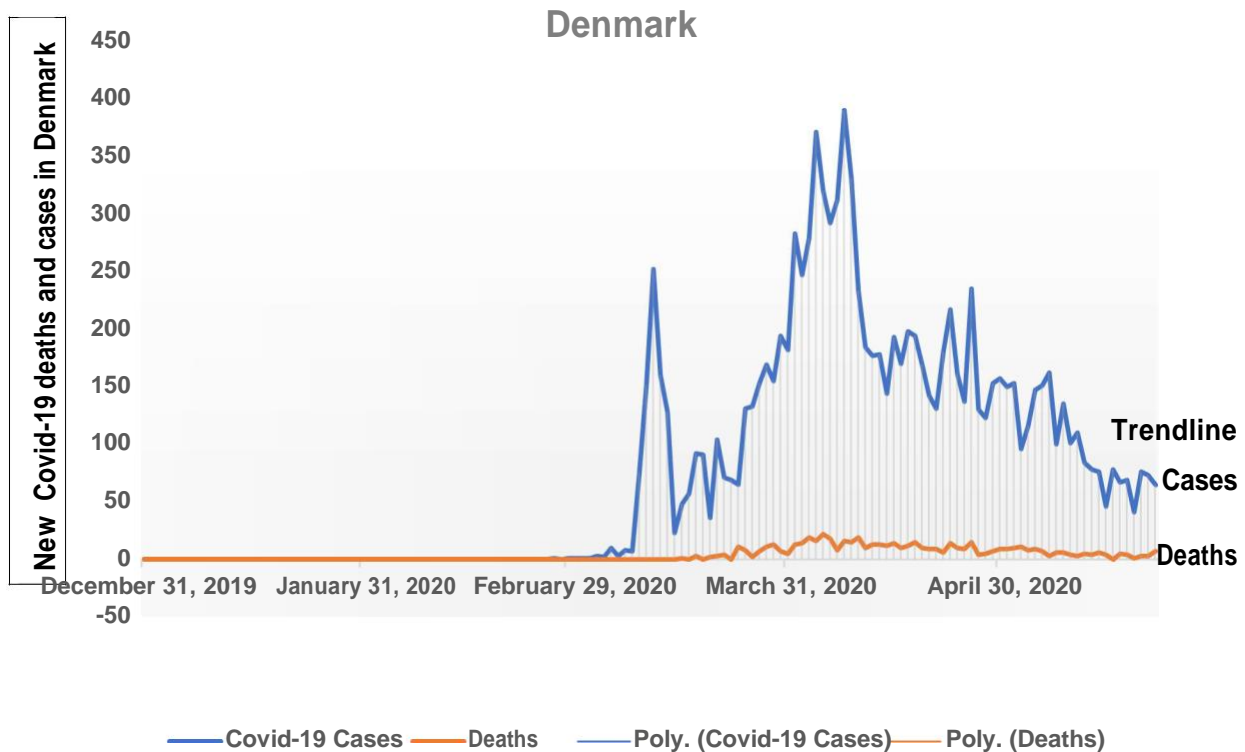
Denmark: Denmark has reported 11,182 coronavirus cases, with 561 deaths as of May 21st 2020.

Denmark which was among the first European countries to announce a lockdown on March 11th 2020 and restricting public gatherings, became the first country to embark on gradual reopening mid-April of schools and daycare centers, starting with the youngest children aged 6-12.

By the Danish authority effecting an early lockdown and the Danes listening to messages from authorities of good hygiene and social distancing, they have seen a flattening of the curve. This is evidenced by a declining number of daily reported cases and deaths, as seen in the graph below.

However, concerns that the reopened schools may become breeding grounds for a second wave of cases wavered parents' confidence; who chose to keep their children at home.

A graph illustrating, on a daily basis, the number of new coronavirus cases and deaths in Denmark as at May 21st 2020.



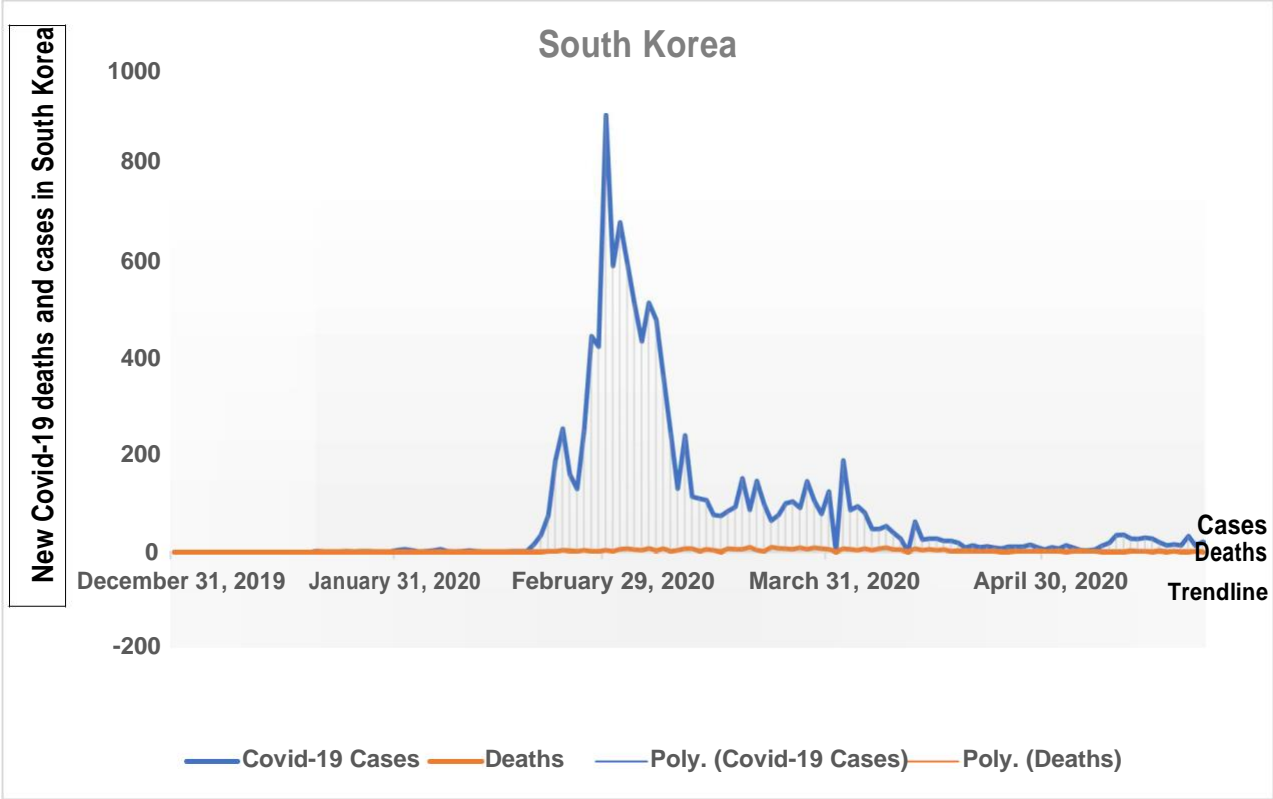
South Korea: S. Korea has reported 11,142 coronavirus cases, with 264 deaths as of May 21st 2020.

South Korea began its school reopening schedule on May 13. Unfortunately, the discovery of new coronavirus cases in two students marred the reopening of South Korean schools, forcing 75 high schools to turn pupils away amid fears among some teachers that it was unsafe for classes to resume.

Their daily number of cases of the new coronavirus have been falling, close to zero over the recent months and exhibiting a flattened curve, as seen in the graph below.

Widespread testing, intensive contact tracing and tracking apps enabled South Korea to limit the spread of the virus.

A graph illustrating, on a daily basis, the number of new coronavirus cases and deaths in South Korea as at May 21st 2020.



Challenges in Opening Kenya Schools

i. Testing and Tracing

Students and teachers will be required to be tested before entry into a learning institution. Learning centers in Kenya compose of approximately 10 million students, pupils and service providers. Efficient thermometers will

therefore be needed to measure each and every persons' body temperature and bar those that exceed 37.5 °C.

Tracing against this many students means that if a single positive coronavirus case props up, it may lead to a big number of quarantined persons per positive case as seen in France where 21 were isolated owing to 1 positive case.

ii. Social distancing

A good number of our learning institutions have crowded classrooms & dormitories. Effecting social distance rules would displace some students from their class. In adherence teachers may present lessons outside. However, harsh weather elements such as heavy rain and strong winds may force the students to aggregate while seeking shelter, making the rule difficult to implement.

Travel to and from school by day scholars may be difficult to enforce as they tend to enjoy socializing as they walk home. Moreover, children by nature, crowd together. Additionally, travel from home to school for the boarders means mixing of cohorts from all the 47 counties of the country including the ones in lockdown.

Children coming in contact with adult workers and teachers in the schools may provide a transmission mechanism from school to homes and vice versa. Exposing the elderly and frailer family members at home to risk.

iii. Masks.

Masks should be provided to all students while ensuring proper use and regular changing.

iv. Water & Sanitation

Ensure adequate water, soap and sanitizers for proper hand hygiene in all schools.

v. Vaccine and medication

There is no available vaccine yet. A potential vaccine which is safe and ready for worldwide distribution, may be ready between September this year and January 2021. This distant projection is due to the necessary but long trials a vaccine must go through. Though, it could be ready later than January 2021 if efficacy trials continue to fail.

Conclusion

Hand hygiene can be implemented in schools with fair ease. However, social distancing is difficult to impose and implement. Currently it may be the main spreader of the disease.

The illustrated case examples i.e. France, South Korea and Denmark, did embark on the reopening of schools evidently after their curves of new covid-19 cases and deaths had flattened for more than a month. South Korea started almost 3 months after their cases and deaths had peaked and flattened. Nonetheless, the few cases that prop up in the schools could cause resurgence of a second wave of Covid-19.

On the contrary, data on covid-19 cases and deaths in Kenya has yet to present its peak or exhibit exponential decay-gradual flattening of the curve. Numbers are gradually increasing on a daily basis. It may therefore be prudent to achieve exponential decay before consideration of reopening schedules for schools and universities.

Recommendation

Continued rigorous testing, tracing, sanitization, use of masks and social distancing to flatten the curve in communities first, before re-opening schools.

Push for vaccines and antiviral availability which will dramatically hasten opening of learning centers and institutions.

- b) An advisory from the *Kenya Medical Practitioners Pharmacists and Dentists Union (KMPDU)* cautioned that care should be taken when dealing with reopening of schools, and particularly -
- a. That the government should do mass testing for all students and teachers of boarding schools before re-opening schools once the pandemic is contained and those who are sick be allowed to stay home until full recovery before resumption of learning.
 - b. That the day schools should do half day with half the group learning in the morning and another half in the afternoon since it may be impossible to build classrooms now or obtain more school ground space to allow for redistribution of learners to be 2 - meters apart both in and out of class.
 - c. That hand washing basins to be installed in each class room and sessions of hand washing be introduced before and after each lesson.
 - d. That an elaborate and solid plan on *Occupational Safety and Health Assessment* for all schools by Safety Consultants from the Directorate of Occupational Safety and Health.
 - e. That periodic risk assessment of the teachers based on the WHO guidelines for risk assessment for health care workers.
 - f. Set up treatment facilities to handle any cases that might arise to ensure access to health services by learners.
- c) Proposed road map by Universities' Academic Staff Union (UASU) for safe reopening of Kenyan Educational institutions - a focus on the universities -
- a. On 24th May 2020, the President of Kenya announced the Government's intention to lift the restrictions which had been introduced as measures to reduce the spread of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the virus which causes coronavirus disease 2019 (Covid-19).
 - b. Ten weeks prior, on 15th March 2020, the Government had suspended learning in all educational institutions, to curtail the spread of the coronavirus (the closure of universities was effective from Friday 20th March 2020.⁴ The number of

⁴ HE President Uhuru Kenyatta (2020). Address to the Nation.

<https://www.president.go.ke/2020/03/15/address-to-the-nation-by-h-e-uhuru-kenyatta-c-g-h-president-of-the->

confirmed cases of the infection in Kenya at the date of the nationwide closure of schools were three.

- c. As at 25th May 2020, more than 1200 persons have tested positive for the Covid-19 causing virus, with a mortality of 52. Alarming, the confirmed daily cases are showing an upward trend, with Nairobi City and Mombasa, the most affected counties.
- d. Mathematical modeling shows that the trajectory of the pandemic in Kenya largely mimics that of China, Italy and USA - countries that have been the epicentres of the pandemic at various time points.⁵
- e. The Government has indicated that the plans for easing restrictions are generally aimed at reviving the economy while preventing increase in the spread of the infections to a level that may overwhelm the Kenyan hospital systems.
- f. As a part of easing current public health restrictions, the Ministry of Education has signaled its intention to reopen educational institutions by forming a Covid-19 Education Response Committee to advise on modalities of re-opening schools.
- g. The approach to reopening schools and universities by other countries has been diverse. Tanzania is set to reopen all schools and universities in June 2020 without significant precautions. Uganda has announced it will reopen schools for examination candidates in the first week of June 2020. Many western European countries which have experienced the peak of the pandemic are more cautious, with Italy and Spain keeping all schools closed until September. The UK and France, on the other hand, are adopting a gradual approach: reopening initially for pre-primary and lower primary children. Denmark, Norway and Austria have reopened in May 2020, while implementing physical and social distancing measures, including splitting classes, with each group attend school at different times in the week.

[republic-of-kenya-and-commander-in-chief-of-the-defence-forces-on-covid-19-commonly-known-as-coronavirus/](#). Accessed on 17 May 2020

⁵ G. Waititu (2020). Modelling the COVID-19 Pandemic in East Africa. <https://www.theelephant.info/data-stories/2020/04/24/modelling-the-covid-19-pandemic-in-east-africa/> (Accessed on 17 May 2020).

- h. The Universities' Academic Staff Union (UASU), being a key stakeholder in the higher education sector, has undertaken a careful review of evidence on the best approach to adopt when reopening Kenyan higher education institutions.
- i. The Union underscores that reopening universities must be transparent, phased and coupled with clear communication by Government and public universities, with the input of public health professionals, frontline healthcare professionals, educators, academic staff and the unions. Every university will require to be aligned with public health requirements designed to prevent the spread of Covid-19.
- j. Based on the available scientific evidence, the Union recommends a phased, stepwise approach to reopening of the higher education institutions and universities, after a demonstrated reduction in the number of confirmed new cases of Sars-Cov-2.

PHASE ONE

- 1. Maintaining the closure of Kenyan educational institutions and universities until the number of new cases stabilizes or declines for at least 14 consecutive days.**

The prevention of spread of coronavirus was the key reason for the closure of the educational institutions and universities.

The reduction in the spread of the coronavirus is therefore the critical parameter before schools and universities can be safely be reopened.

Current mathematical models, show that there is an upward trajectory for confirmed new cases in Kenya, similar to China, Italy, UK and the USA before the peak of the pandemic was attained in those countries.

Based on the criterion that was used for the closure of the universities, the public health situation is such that the universities are not ready for reopening.

For a coordinated response all educational institutions and Universities should establish appropriately constituted **Covid-19 Response Committee**, to oversee the phased reopening approach as outlined in this document, including assessments of elements such as sanitation, social distancing, testing and contact tracing.

PHASE TWO

2. The availability of sufficient resources for maintaining social distancing, testing, contact tracing and isolating new cases in every public university.

For the higher education institutions to safely reopen and function at near the new normal, it is imperative that members of the university community to maintain social distancing and that adequate testing be available. Other measures during this phase of reopening would include:

(i) **Social distancing.** Academic staff must be allowed to decide whether e-learning would be used after re-opening or whether online instruction can be blended with face-to-face lectures.

(ii) Academic staff should have the opportunity to choose which of the instruction modes will be used, after reopening.

(iii) Universities must endeavour to provide ICT access to all academic staff upon reopening.

(iv) Public universities must be able to implement social distancing measures for academic staff and students by providing adequate space in lecture theatres, laboratories, examination rooms, office space, hostel rooms, libraries, dining facilities and other common areas.

(v) **PPE and Sanitization.** Regular thorough cleaning, sanitization and fumigation of lecture theatres, libraries, dining rooms, hostels and meeting rooms will be essential. Provision of masks and sanitizers on campus will be essential.

PHASE THREE

3. Preventing the spread of virus on campuses.

During this phase, part of which will overlap the previous phases, the universities must:

(i) Ensure adequate access to healthcare by strengthening university health care services and provision of adequate insurance cover.

(ii) **Protecting staff at risk.** A number of professors are already in the at risk category by virtue of age. The university should take measures, such as already taken by the Kenyan Judiciary to limit the virus's disproportionate impact on the older age groups (for example provision of adequate health cover, working remotely as much as possible, among others).

(iii) Equally academic staff with underlying conditions should be afforded greater protection.

(iv) Changing graduation practices, for example by limiting gathering of graduands and relatives by decentralizing graduation to Schools or holding ceremonies online.

(v) Staggering the academic calendar to reduce the number of students on campus.

(vi) Limiting co-curriculum activities such as sports.

(vii) All educational institutions and Universities should establish appropriately constituted Covid-19 Response Committee, to oversee the phased reopening approach as recommended by the union, including assessments of elements such as sanitation, social distancing, testing and contact tracing.

PHASE FOUR

4. Increase funding for public universities by about KSh 35 billion to support research, ICT infrastructure, social distancing measures and remuneration.

The income of universities have been severely affected; and there is need for the Government to bailout the public universities.

Provide at least KSh. 35 billion for the Public University Education Stabilization Fund distributed directly to the public universities.

CONCLUSION

5. This roadmap to reopen the higher education institutions is an evolving document that will be subject to change as evidence accumulates.

This plan rests on the assumption that until a cure or vaccine for Covid-19 is found, specific steps and action must be taken to prevent the virus from spreading and overwhelming Kenya's healthcare system and educational institutions, as well as protecting the health of students, staff and the population.

CHAPTER 7

OVERALL RECOMMENDATIONS AND WAY FORWARD

It is the considered opinion and hence recommendations of KNUT, UASU, KHRC and the collaborating partners KMPDU, FAWE-Kenya and Elimu Tuitakayo Network, that -

- a) Ensure that the COVID - 19 curve of infections is flattened first, as per Prof Florentive Koech and George Osanjo advisory, to assure safety of teachers, support personnel and learners before re-opening of schools. Experts do project that the peak of the curve is in August. Viably, schools can not re-open until September 2020
- b) Based on the UNESCO guidelines for school reopening, the decision on reopening of schools should be guided by *the best interest of the child and overall public health considerations*, based on an assessment of the associated benefits and risks and informed by *cross-sectoral and context-specific evidence*, including education, public health and socio-economic factors. No evidence is available at present to confirm that the government is in compliance or moving towards being compliant with this provision.
- c) A decision on reopening schools is a step-wise process that requires skilful, careful and cautious selection to deal with situations prior to re-opening, during the process of re-opening and management of the schools once they are reopened. A framework for managing this process should be set up in earnest.
- d) Prior to re-opening of schools, the government with the support and particularised inputs of stakeholders need to prepare critical policies, procedures and financing plans needed to improve schooling, with a focus on safe operations, including strengthening remote learning practices.
- e) As part of the re-opening process, the government needs to adopt proactive approaches to reintegrate marginalized and out-of-school children, invest in water, sanitation and hygiene to mitigate risks and focus on remedial education to compensate for lost instructional time. This becomes more so apparent in the North Eastern Kenya where public schools

started the year with huge shortage of teachers due to security-related challenges.

- f) With schools re-opened, a mechanism to actively monitor health indicators, expanding focus on wellbeing and protection, should be implemented. The government should invest in strengthening pedagogy, and appropriate teaching and learning, including knowledge on infection transmission and prevention.

- g) While considering the above, an objective, inclusive and comprehensive data-driven process of ascertaining how schools, teachers, non-teaching staff, students and communities are coping with closures and the pandemic remains a critical pre-requisite to any determination of schools' re-openings. Rapid response surveys of school and local leaders, teachers, students and parents can help provide this information, and the multi-agency process rolled out by KNUT, UASU and KHRC is an example that can guide the country on schools' re-opening.

- h) With the inconclusive evidence around the infection risks related to school attendance as of now, the government needs to assess how learning and wellbeing can best be supported, the mechanisms for psycho-social support for the learners, teachers and other school workers on re-opening, in addition to other safeguards against risk factors related to reopening and running of schools during COVID-19.

- i) National examinations should be pushed to the 1st Quarter of 2021.

- j) Without any of the outlined measures undertaken, schools should not be re-opened. Plan well, save lives.

Moving forward, the specific actions that the government needs to undertake are -

- a) Meaningfully and effectively engage teachers, non-teaching staff, parents on whether and how to re-open schools.
- b) Promote World Health Organisation's recommended safety facilities in schools.
- c) Provide sustainable supply of Personal Protective Equipments for teachers, workers and students.

- d) Provide adequate space for social distancing at school.
- e) Train and support teachers on Coronavirus COVID - 19 Compliant Pedagogy including support for gender, disabilities, vulnerabilities, and COVID-19 survivors.
- f) Recruit more teachers and school workers to support the expected intensive teaching and learning.

References

- i. Executive Order number 2 of 2020 by H.E. Hon. Uhuru Kenyatta, President of the Republic of Kenya, on the establishment of National Emergency Coronavirus Response Committee as a framework for upscaling preparedness and capacity to combat coronavirus.
- ii. Executive Order of March 13th, 2020 by H.E. Hon. Uhuru Kenyatta, President of the Republic of Kenya, on immediate closure of schools to curb the spread of COVID-19.
- iii. Ministry of Education Science and Technology Circular (MOE.HQS.3/6/1(5) of March 16th, 2020 on the Containment Measures to Curb the Spread of Coronavirus.
- iv. Republic of Kenya, Constitution of Kenya (2010).
- v. Republic of Kenya, Basic Education Act (2013).
- vi. World Health Organisation's guidelines on containment and combating COVID-19 pandemic.
- vii. UNESCO/UNICEF Guidelines on School Reopening of April 24th, 2020.
- viii. International Teachers Task Force Report on School Reopening.
- ix. Dr Florentious Koech, Dr Mayra Maghasi, Dr Nicholas Kirui and Mr Preston Yegon Technical Team analysis on School Reopening Schedule in Kenya.
- x. WHO Director-General report on COVID-19 on March 11th, 2020.
- xi. Report by Finish Institute for Health and Welfare - May 2020.
- xii. Journal of Infections - April 2020.
- xiii. Africa Education Watch Report on the Spread of COVID-19 and its Effects on Education - May 18th, 2020.
- xiv. Universities Academic Staff Union Report on Effects of COVID-19 on Education - May 2020.
- xv. Kenya Human Rights Commission Report on the Effect of Coronavirus Pandemic on Education - Reopening of Schools, Colleges and Universities - May 2020.
- xvi. Africa Network Campaign on Education for All Report on COVID-19 and its Effects on Teaching and Learning - April 2020.
- xvii. Ministry of Education and Sports of Uganda Guidelines on Reopening of Schools in the Wake of COVID-19 - May 20th, 2020.
- xviii. Kenya National Union of Teachers analysis on Effects of Coronavirus on Teaching/Learning and Reopening of schools, colleges and universities - May 22nd, 2020.
- xix. Ministry of Education Science and Technology Cabinet Secretary Prof George Magoha response to questions in Kenya's National Assembly on May on May 12th, 2020.
- xx. The Report on Online Learning Progress During COVID-19 Pandemic in Basic Education Institutions in Kenya prepared by the Directorate of Quality Assurance and Standards in the State Department of Early Learning and Basic Education - May 2020.

- xxi. S World Health Organization. WHO Director-General’s opening remarks at the media briefing on COVID-19–11 March 2020. Geneva, Switzerland: World Health Organization; 2020. <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19–11-march-2020>
- xxii. Coronavirus Disease 2019 in Children – CDC, 2020. MMWR Morb Mortal Wkly Rep 2020;69:422-426. DOI: <http://dx.doi.org/10.15585/mmwr.mm6914e4>
[external icon](#)
- xxiii. Data on the geographic distribution of COVID-19 cases worldwide as of 22 May 2020 – ECDC, 2020. <https://www.ecdc.europa.eu/en/publications-data/download-todays-data-geographic-distribution-covid-19-cases-worldwide>
- xxiv. Preliminary Estimates of the Prevalence of Selected Underlying Health Conditions Among Patients with Coronavirus Disease 2019 – United States, February 12-March 28, 2020. MMWR Morb Mortal Wkly Rep 2020;69:382-386.
a. DOI: <http://dx.doi.org/10.15585/mmwr.mm6913e2>
- xxv. Covid-19 and Kawasaki syndrome: should we really be surprised? –Cambridge University Press, 2020.
a. DOI: <https://doi.org/10.1017/S1047951120001432>
- xxvi. Clinical Features of COVID-19 in Elderly Patients: A Comparison with Young and Middle-Aged Patients –Journal of Infection, 2020.
a. DOI: [10.1016/j.jinf.2020.03.005](https://doi.org/10.1016/j.jinf.2020.03.005)
- xxvii. Coronavirus epidemic: prediction and controlling measures – <https://www.medrxiv.org/content/10.1101/2020.04.11.20062125v1.full.pdf+html>
- xxviii. Ministry of Health Kenya Covid-19 updates – May, 2020
<https://www.health.go.ke/kenya-covid-19-cases-hits-1161-nairobi-friday-may-22-2020/>
- xxix. The risk of the coronavirus spreading in schools is small in Finland –Finnish Institute for Health and Welfare, May 2020. <https://thl.fi/en/web/thlfi-en/-/the-risk-of-the-coronavirus-spreading-in-schools-is-small-in-finland>

- xxx. Covid-19 confirmed cases in Finland and other countries –Helsinki Times 17 May, 2020 <https://www.helsingitimes.fi/finland/news-in-brief/17679-21-students-and-teachers-at-porvoo-school-quarantined-after-student-tests-positive-for-coronavirus.html>
- xxxi. 70 cases of COVID-19 at French schools days after re-opening –ABC News 18 May, 2020 <https://abcnews.go.com/Health/wireStory/70-cases-covid-19-french-schools-days-opening-70740749>
- xxxii. Fast in, first out: Denmark leads lockdown exit– Reuters 18 May, 2020 <https://www.reuters.com/article/us-health-coronavirus-denmark/fast-in-first-out-denmark-leads-lockdown-exit-idUSKBN22U1TC>
- xxxiii. New infections mar South Korean students' return to school–Reuters 20 May,2020 <https://www.reuters.com/article/us-health-coronavirus-southkorea-school/masked-against-coronavirus-south-korean-students-return-to-school-idUSKBN22W0BE>
- xxxiv. Flattening-the-curve associated with reduced COVID-19 case fatality rates- an ecological analysis of 65 countries– Journal of Infection, April 2020 [https://www.journalofinfection.com/article/S0163-4453\(20\)30215-2/abstract](https://www.journalofinfection.com/article/S0163-4453(20)30215-2/abstract)