

# The Africa Health Pot

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**Title: Non-pharmaceutical interventions in the containment of COVID-19: do they suffice or only provide a window to strengthen case management?**

Earlier in the pandemic, there were misconceptions among the African populace that Africans were immune to the SARS-Cov-2 virus. After Egypt's confirmation of the first COVID-19 case on the African soil, 52 of Africa's 54 countries have since confirmed at least one case, as at 24th April 2020. Africa's [cumulative caseload stands at 27,385 with 1,297 fatalities](#), representing death to case ratio of 4.7% at relatively low caseload as at 24th April 2020.

A mathematical model by scientists from [Imperial College London](#) predicts 1,044,858,000 infections with 2,483,000 deaths in the unmitigated scenario and 110,164,000 infections with 298,000 deaths with the (best) suppression scenario of 0.2 deaths per 100,000 population per week in Sub-Saharan Africa in 2020. This mathematical model examined the impact of implementing four non-pharmaceutical interventions (NPI) scenarios: - unmitigated scenario without non-pharmaceutical interventions (NPI); population-level social distancing and; social distancing of the elderly. The fourth scenario is suppression that examined different epidemiological triggers for intense social distancing measures (e.g. lockdown) with the aim of rapidly suppressing transmission, and keeping cases and deaths at minimum in the short term.

[The table below shows COVID-19](#) cases and deaths predicted in 2020 based on unmitigated scenario, suppression at 0.2 deaths per 100,000 population per week and suppression at 1.6 deaths per 100,000 population per week.

In this article, the author explores the measures taken by African governments and urge that in as much as restrictions and lockdowns in several forms have been beneficial, it is not yet time to rejoice. We should instead exploit the window of relief to be better prepared.

African countries have adopted several NPI's like the ban on international passenger travel, internal travel restrictions, intra-country lockdown, closure of schools, places of worship and bars, ban on large gatherings, stay home campaigns with curfews at varying times under strict enforcement by security agencies.

Further, social distancing measures have been introduced at different points of progression of the epidemic: before, at early-onset or later. [A study that modelled the impact of NPI's for prevention and control of COVID-19](#) reported that introducing NPI's too early risks rebound of transmission once they are lifted. NPI's like social distancing and its extreme forms like lockdown are undoubtedly effective if maintained until vaccine discovery. However, it will take several months to years to have a vaccine of acceptable quality approved, notwithstanding the possibility of failure.

Do African countries have the capacity to implement the NPI's for prevention of the COVID-19 until vaccine discovery given the socio-economic situation? What if current efforts for vaccine development end up in futility! With expected rebound in transmission following the inevitable lift in some social distancing measures, adequate preparation for case management must be priority.

Fear of rebounds notwithstanding, the 14th April 2020 situation brief by [African Union and Africa CDC](#) lists 7 African countries as experiencing community transmission with additional 42 countries on local transmission. During the week ending 18th April 2020, Africa experienced 43% jump in cases. The WHO has provided some countries with first few cases (FFX) protocol. The FFX provides for countries to learn from interaction with the first few (X) patients in order to re-focus country-specific response strategies.

The FFX strategy was designed on the notion that countries will have few cases at onset of the epidemic; hence, what several African countries see as success implies they most likely have not reached the tipping point. Experience from Spain and Italy showed that the progression of the epidemic turns exponential after attaining 100 cases. The slow transmission with NPI's should thus, not be seen as absolute success but rather relative success that offers opportunity for African health systems to prepare for case management. Intensive care capacity is critical for COVID-19 case management.

[Old age and pre-existing conditions are shown to drive COVID-19-related mortality.](#) In the case of Africa, with [an average life expectancy of 61 years at birth \(range: 52-75\)](#), age shouldn't be a big determinant of COVID-19-related mortality. Low intensive care capacity is the most important determinant of Africa's predicted high COVID-19-related mortality. Low-income countries have [only 1.63 per cent of hospital beds in intensive care despite presenting the lowest average bed capacity of 1.24 beds per 1000 population](#) and the situation could be worse in Sub-Saharan Africa.

Sadly, few African countries have placed strengthening intensive care capacity as an immediate priority. For example, Uganda's local mobilization for support led by his excellency the President prioritized pick-up vehicles, and the country is also experimenting on local production of ventilators that are only undergoing media exhibition with no certainty on when human trials will commence. Several African countries are trapped in experimenting own local technologies for case management with virtually no immediate alternatives. Whereas such local initiatives are critical to ensure the availability of affordable, sustained and technologically appropriate strengthening of case management capacity, we need alternative procurement to address immediate needs before the pandemic overwhelms the health systems.

Uganda's other investment priorities like; provision (without expenditure guidelines) of millions of US Dollars to members of parliament majorly locked-down in the country's capital, and road-side bill boards to educate a population on lockdown/stay-home directive are examples of poor prioritization.

In order to avert catastrophic occurrence of COVID-19-related deaths, African health systems ought to prioritize strengthening capacity for decentralized case confirmation and case management, taking advantage of NPI's' slowing of progression of the epidemic.

Providing highly sensitive rapid test kits, oxygen and required accessories, intensive care equipment including ventilators, and training health workers in provision intensive care, including positive pressure ventilation should be Africa's immediate priorities undeterred by the current relative success. Overtime, this will result into overall improved patient care, reduced unmet need for intensive care and low dependency on foreign intensive care, thereby converting the COVID-19 response into opportunity.