Prioirity strategies for COVID-19 response- Sudan case study

Dr Maysoon Dahab (Kings College London) and Dr Nada Abdelmagid (London School of Hygiene and Tropical Medicine) –31 March 2020
Contact: maysoondahab@gmail.com

Background

Current figures

- As of March 31st, 2020, there were six confirmed COVID-19 cases among individuals with a history of international travel, 2 of whom have since died.

Can we still contain the spread of transmission in Sudan?

- It is unlikely, given less-than-sufficient testing and surveillance in most resource-constrained settings, that infection can be contained. In fact, lack of testing may initially hide the true extent of community transmission.
- Evidence shows that in locations with similar transmission potential to Wuhan China once there are four or more independently introduced cases, there is more than a 50% chance the infection will establish within the population.

What can we expect in Sudan once community transmission is established?

- Given its disease and household social mixing risk profile, modelling predictions estimate that in an unmitigated response scenario, without any interventions, Sudan will experience an estimated 4.4 million infections, 760,000 hospitalizations, and 115,000 deaths.

What should be prioritized in Sudan's response strategy?

Prevention will be the key to mitigating the impact of the COVID-19 in any resource-constrained setting. Below, we present a matrix to maximize this in Sudan.

Table 1: Health sector priority strategies

Prevention
1. Shield*, high risk individuals from infection starting now. Evidence shows that focusing on cutting social contacts of high-risk individuals will reduce their risk of infection, hospitalization and death. In the Sudanese context, where intensive care treatment will be unavailable to most, protecting individuals at highest risk must be the top priority
2. Consider nation-wide lock down/stay at home measures for at least 3 weeks only IF the time is used to intensify shielding strategy above and prepare for health worker protection at health facilities). Once a lockdown is lifted the disease transmission will pick up speed again, so important to focus on strengthening risk communication with with communities and strengthening their shielding arrangements
3. Those exhibiting **COVID-19 symptoms** (persistent cough and fever) ordered to **stay home** (away from high risk individuals) for 7 days
Treatment
1. Increase capacity of hospital wards to provide basic care package for COVID-19 patients. This is including: oxygen, IV fluids, nutritional, supplementation, treatment of secondary bacterial infections
2. In health facilities **establish 'hot" wards/clinics that deal with COVID-19** suspected patients and "cold" wards/clinics that treat everyone else
3. Dispense several months' supply of chronic disease medicines to ensure continuity of care for high risk individuals who need to shield at home
Surveillance
1. Collect information from **sentinel health facilities on the incidence of acute respiratory distress syndrome** to provide a proxy measure of severe illness in the population with access to curative care

Given current trends containment is very much yesterday's fight. **Sudan must prioritize efforts to mitigating community transmission, primarily through intensified shielding* of high-risk individuals**

Potential national economic interventions in support of prevention

1. Decrease social mixing at points of purchase of essential goods by:
   - Reducing the price of essential food and distributing free soap
   - Prioritizing of the production and distribution of essential food and household items to reduce shortages, travelling distance and long queues to obtain such goods
2. Incentivizing staying at home for informal sector workers through direct financial assistance
3. Task shifting to younger age workers in the public and private sector
4. Funding the repurposing and maintenance of larger shielding structures to provide safe and dignified shelter for high risk individuals living in displaced people camps, and as required by the MoH

*For detailed shielding principles and operational considerations please refer to *https://www.lshtm.ac.uk/newsevents/news/2020/COVID-19-control-low-income-settings-and-displaced-populations-what-can)*

**Mass adaptation of shielding to an impactful level will depend on an unprecedent level of coordination and cooperation between government, civil society, and community volunteer efforts. This is both to ensure financial support to those who need to be shielded and to ensure that communities understand the risks and therefore the necessity of shielding the vulnerable. Coercive and authoritative measures will not be effective and must be avoided at all costs.