The Impact of COVID-19 in Africa & Latin America: Challenges & Opportunities

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The Global COVID-19 pandemic and the need for an African response

Prof Nelson Torto, the African Academy of Sciences, Executive Director
The African Academy of Sciences (AAS)

- A non-aligned, non-political, not-for-profit pan-African organisation

- The only continental Academy in Africa enjoying the support and recognition of the AU, (and with joint programmes with AUDA-NEPAD), several governments and major international partner

- Tripartite mandate:
  - recognise excellence,
  - advisory and think tank functions and
  - implementing key science, technology and innovation programmes
Epidemic preparedness/Global Health Security – COVID-19

The EVOLVING situation in Africa – Africa CDC Dashboard, 23 April 2020

Cases 25,937
Deaths 1,242
Recoveries 6,534

Data updated: 23 April 2020 | Source: Africa CDC
The EVOLVING situation in Africa – Africa CDC Dashboard, 11 May 2020

Cases 63,325
Deaths 2,290
Recoveries 21,821
Contextual issues for Africa for COVID-19

High disease burden & epidemiological transition
>20% disease burden, health system challenges

Food Insecurity
124M experience high level of food insecurity

Poverty
390M living in extreme poverty

Climate Change
Africa’s 6M tons carbon emissions vs. China’s >9B yet will suffer worst devastation

Rural-urban ratio (~3:2)
Variety of low density rural areas and high density urban areas

High youthful Demographic Dividend
Kenya’s 3.1% vs. Italy’s 22.8% population >65 years
The AAS is convening African and Global scientists, policymakers and funders to discuss the COVID-19 pandemic in Africa and what this means for the rest of the world.

Specifically the AAS is:

- Supporting the research base
- Identifying African research priorities
- Identifying relevant African research expertise
- Identifying ongoing and planned COVID-19 research activities across Africa
- Acting as a trusted resource for policy, public and community engagement
AAS COVID-19 all hands Webinar

26 March the AAS hosted a webinar to kick start common thinking towards defining a research agenda for the COVID-19 pandemic in Africa. 275 scientists attended

COVID-19 experts in Africa

Developing a list of COVID-19 experts and researchers working on COVID-19 related research on the continent through the AAS Clinical Trials Community (CTC) programme

Survey collating Africa’s R&D priorities

- 4—8 April African scientists invited to participate in an open survey to develop a priority list for R&D to supplement the WHO coordinated Global research Roadmap 844 completed responses
- 17 new priorities specific for Africa identified and listed against global priorities
- Report available: COVID-19 R&D goals for Africa CLICK ON LINK

Funding for COVID-19 R&D priorities

The AAS mobilized partners to provide funding for identified research priorities, A COVID-19 call shared 1 May 2020
Research & Development goals for the COVID-19 outbreak in Africa:

- Virus natural history, transmission, and diagnostics
- Clinical characterization and management;
- Epidemiological studies;
- Candidate therapeutics R&D;
- Candidate vaccines R&D;
- Animal & environmental research on the virus origin, and management measures at the human-animal interface;
- Infection prevention and control, including health care workers’ protection;
- Ethical considerations for research;
- Integrating social sciences in the outbreak response

42 priorities from WHO ROAD MAP plus 17 additional potential priorities from the consultation process
• Support work to examine alternative approaches to delivering testing (e.g. centralised versus devolved)
• Have a special focus on potentially at-risk groups e.g. malnourished individuals, HIV, TB and Sickle Cell
• Develop protocols for management of severe disease in the absence of intensive care facilities
• Develop new PPE approaches using local materials and manufacturing processes
• Establish processes for speeding up ethical review of Covid-19 related research proposals
• Examine optimal ways of communicating about potential interventions in high density, low socioeconomic status urban settings
• Investigate innovate approaches to short term economic support of vulnerable populations such as cash transfer by mobile money mechanisms
Epidemic preparedness/Global Health Security – COVID-19

Supporting grant-makers and organizations to quickly respond to the COVID-19 pandemic

• The AAS announced a fixed cost of $100 to allow organizations of any size to assess their compliance against the requirements of the global standard for Good Financial Grant Practice (GFGP)
• This allows organizations of any size to rate their capability to receive and manage grants
• The offer is restricted to grant makers and grant receivers who can demonstrate the funds will be used to combat the COVID-19 pandemic.

Benefits for Grant Makers and Grant Receivers.
• Grantmakers can disburse funds quicker through searching the GGC organizational directory to seek out new partners who have completed an assessment to GFGP and who are “ready to be funded”
• Grant recipients can achieve greater credibility and attract more funding for their COVID-19 related activities through completing pre-certification assessments on the GGC portal. Subject to permissions, the responses to the assessments can be viewed on-line by potential funders who can quickly evaluate whether they are financially capable to safely administer their funds.
Epidemic preparedness/Global Health Security – COVID-19

Way forward

• **Rolling call** – Have a perpetually open call with peer review on received applications dependent on fund availability

• **Policy, public, community and engagement** – priority list publication and communication to partners

• **Clinical Trials Community (CTC) programme** – development of COVID-19 database of experts, capacity to deliver work and COVID-19 ongoing and planned research

• **Convenings on research priority areas** – formation of research expert groups

• **Engagement of Country Emergency Response groups** – Research groups with expert teams e.g. bioethics, vaccine development, candidate therapeutics, PPE evaluation

• **Develop multidisciplinary work packages** – that release advisories for countries e.g. inclusion of social science, humanities and economics
The AAS COVID-19 team is led by Dr Moses Alobo and Prof Kevin Marsh

**covid19team@aasciences.africa**

To view more on the COVID-19 response visit


Contact The AAS for more information or to join mailing list

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COVID-19 AND INEQUITY—A PERSPECTIVE FROM SOUTH AFRICA

CUGH Webinar 12 May 2020
Assoc Prof Lilian Dudley
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Epidemic curves of outbreaks in selected African countries, 25 Feb – 5 May
South Africa

• First confirmed COVID-19 case 5 March 2020

• Projected to peak between June and September with approx. 50 000 deaths

Context

• Population 60 million, 9% > 60 years

• 55.5% live in poverty

• 10% in informal settlements

• HIV prevalence 20%; 62% on Rx

• TB incidence 700/100 000
The 3 waves of the SA epidemic

- Travellers
- Contacts
- Community transmission

Expected situation
Current stages of SA’s response

Stage 1: Preparation
  • Community education
  • Establishing lab capacity
  • Surveillance

Stage 2: Primary prevention
  • Social distancing & hand-washing
  • Closing schools and reduced gathering
  • Close the borders to international travel

Stage 3: Lockdown
  • Intensifying curtailment of human interaction

Stage 4: Surveillance & active case-finding
  • The Community response: door-to-door screening, testing, isolation and contact tracing
Next stages of South Africa’s response

Stage 5: Hotspots
- Surveillance to identify & intervene in hotspots
- Spatial monitoring of new cases
- Outbreak investigation & intervention teams

Stage 6: Medical Care (for the peak)
- Surveillance on case load & capacity
- Managing staff exposures and infections
- Building field hospitals for triage
- Expand ICU bed and ventilator numbers

Stage 7: Bereavement & the Aftermath
- Expanding burial capacity
- Regulations on funerals
- Managing psychological and social impact

Stage 8: Ongoing Vigilance
- Monitoring Ab levels
- Administer vaccines, if available
- Ongoing surveillance for new cases
Deaths from COVID-19
(n = 64, W.Cape, 06/05/2020)

Co-morbidities in COVID-19 deaths (n = 64)

- No co-morbidity: 41%
- > 1 comorbidity: 32%

Of those with co-morbidities:

- Diabetes: 34%
- Hypertension: 31%
- HIV: 13%
- Cardiac: 8%
- Obesity: 6%
- COPD: 4%
- Chronic kidney disease: 3%
- Previous TB: 1%
What worked?

- Stage 1: Handwashing campaigns on media, preparing laboratories
- Stage 2: Closing schools, borders to international travel
- Stage 3: Lockdown in high and middle income suburbs. Multi-sectoral planning; civil society mobilisation.

What did not?

- Stage 1: Limited culturally appropriate community education; difficulties in physical distancing and hand hygiene; mixed messages about face masks.
- Stage 2: Large gatherings – panic shopping;
- Stage 3: Poor adherence to lockdown in low income areas, particularly informal settlements.
  Queues for food parcels and social grants.
  Funerals.
  Excess police and military force.
  Increased domestic violence.
What worked?

- Stage 4: Testing available; > 28 000 CHW’s mobilised for community screening and testing
- Stage 5: some Provinces active surveillance, case and contact tracing, outbreak investigation
- Stage 6: Enough time to prepare medical facilities, temporary hospitals and procure supplies

What did not?

- Stage 4: testing case definition very narrow; CHW screening not targeted.
- Stage 5: lab testing backlogs, data and ‘implausible’ trends
- Stage 6: Limited bed, clinical and ICU capacity, competition for PPE and other supplies – no flights
Challenges: Inequity

Socio-economic
- Food insecurity - >30% hungry
- Living conditions
- Livelihoods – unemployment increased to > 40%
- Slow social relief response from government
- Engagement of communities, fake news
- Excess use of force

Health System
- Outbreak preparedness – IHR JEE scores
- Dual health system – 80% dependent on poorly resourced public health system
- Quality of care – IPC scores poor
- Laboratory system – accredited but under pressure, long ToT
- Inpatient beds & ICU capacity

Opportunities: Address inequity and strengthen public health – tailor response to context

**Socio-economic**
- Safe housing, access to water & sanitation
- Address food insecurity
- Create employment opportunities
- Improve management of social security system
- Engagement and empowerment of communities
- Change approach of security forces to population

**Health System**
- Strengthen and tailor public health and outbreak preparedness – IHR (2005)
- Universal health coverage & national health system for SA
- Improve quality of care & IPC
- Strengthen laboratory system, medical care capacity
- Local production of medical products and supplies - ? intnl patents

Thank you