Important data on COVID-19 profile in Africa

Lead applicant and coordinator
Prof. Dr. Ayola Akim Adegnika
CERMEL

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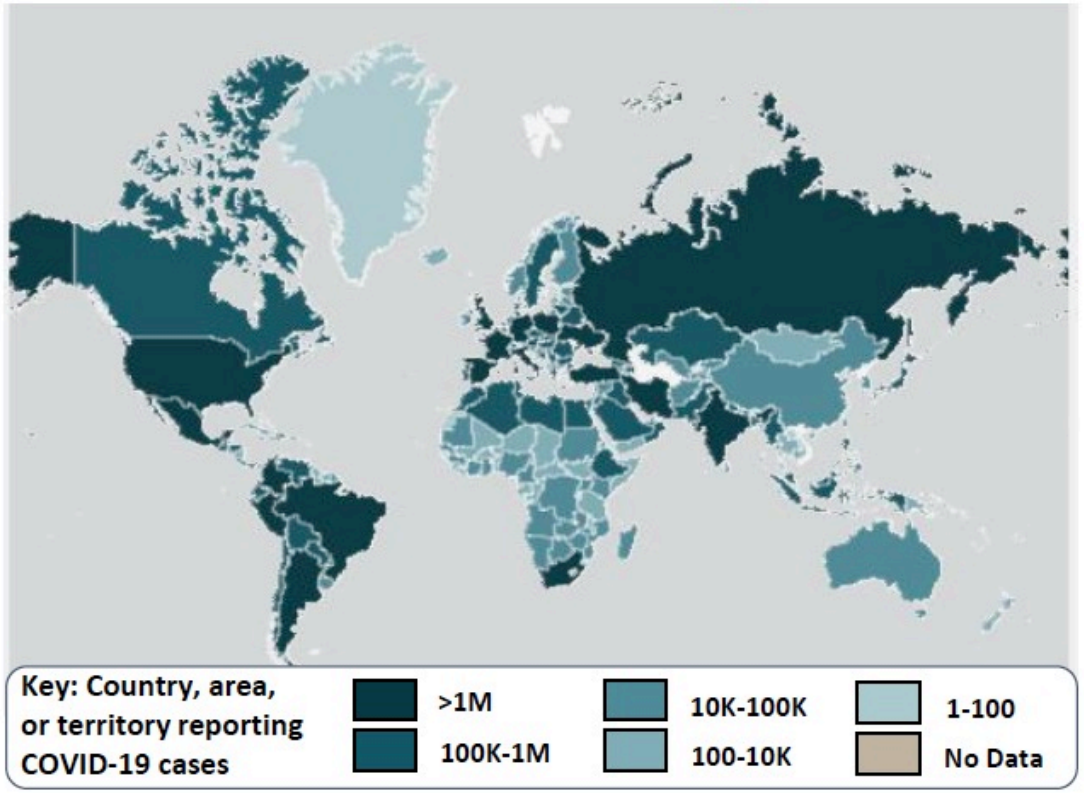
Rationale

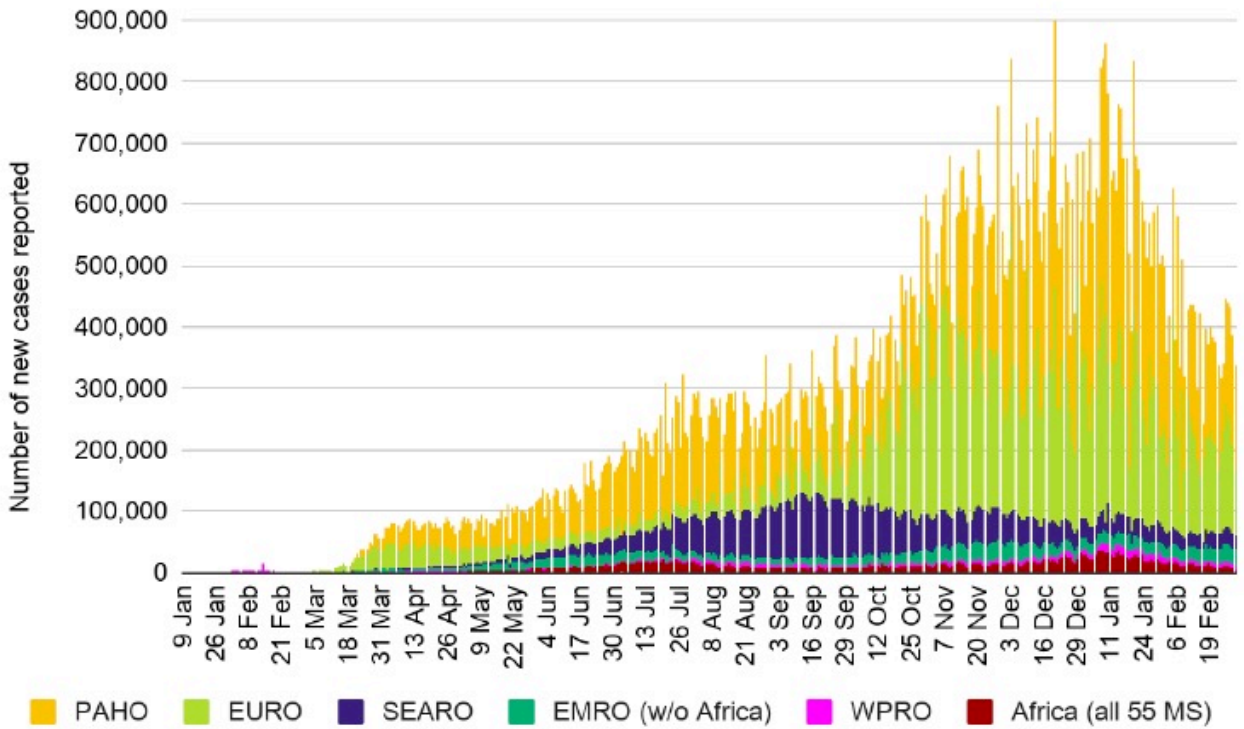
- Heterogeneous outcome and illness of COVID-19 have been reported from earlier affected countries (Cao et al 2020).
- To date little is known about what contributes to the diversity in disease pattern apart from age, and comorbidities such as diabetes, cardiovascular disorders and obesity (Jordan 2020).
- There is paucity information regarding Africa
- Need to generate importannt data on COVID-19 profile in Africa

Global COVID-19 Situation

as of 5:31 pm CEST 1 March 2021



New COVID-19 cases reported daily globally by WHO region from 9 January 2020 - 1 March 2021



>113.8M Confirmed cases

2.5M Deaths

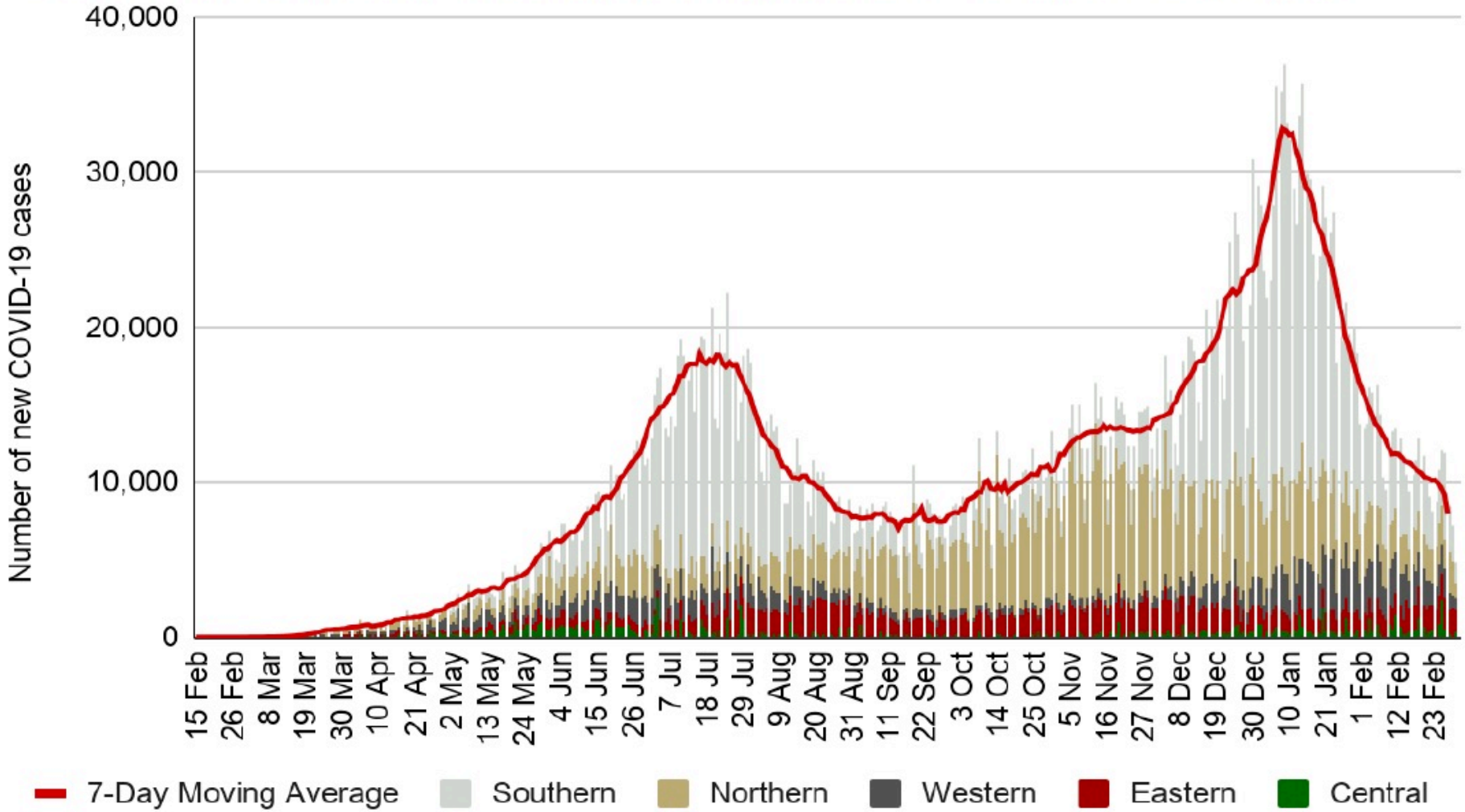
CFR: 2.2%

*Global numbers are taken from the latest WHO sitrep and dashboard: https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports; https://covid19.who.int/

COVID-19 Situation in Africa

as of 2 March 2021, 9am EAT

New COVID-19 cases* reported in Africa daily by AU Region from 15 February 2020 – 2 March 2021



>3.9M
cases

>104K
deaths
CFR: 2.7%

>3.4M
recoveries
(89%)

*Africa numbers are taken from official RCC and Member State reports.

What about COVID-19 in Africa?

- Poor and weak health care system.
- Difficulty in applying social distancing.
- Lack of water for hand washing.
- High population density (urban areas, households,...).
- Young population.
- High communicable diseases (infectious diseases).
- Less non-communicable diseases (although they are increasingly becoming a major concern).

Objectives

- Determine the clinical outcome of COVID-19 infection in three African countries, including Ethiopia, Gabon and Senegal .
- Determine the pattern of virus transmission and infection in households of confirmed cases.
- Map the factors associated with COVID-19 infection and disease progression.
- Scale-up capacity for cases and household contacts studies.
- Establish a biobank.

Study design and sample size

Prospective longitudinal, observational study of COVID-19 hospitalized patients as well as their household contacts in three urban areas in West (Dakar, Senegal), Central (Libreville & Lambaréné, Gabon) and East (Addis Ababa, Ethiopia) Africa.

Inclusion and exclusion criteria

Inclusion criteria

- Patient with a positive molecular PCR test for SARS-COV2
- Household contacts of index cases (if tested positive, the household contact becomes him/herself an index case)
- Provided signed informed consent

Exclusion criterion

- Pregnancy

A total of 90 COVID-19 positive cases and 180 household contacts to be included .

Progress made

- Protocol finalised and approved by the respectives IRB from each conutry
- Authorisation gained from National authorities including MoH and the Covid management board wherevever applicable.
- Training on different aspects of studies were conducted remotely.
- Procurement of consumables and reagents were completed.
- Healthcare worker sensitisations as well as community and stakeholder

Activities with substantial delay due to COVID-19

Progress report (as of March 12th 2021)

- **Ethiopia**
  - 16 index cases, 5 household contacts.
- **Gabon**
  - 74 index cases, 36 household contacts
    - CERMEL: 25 index cases, 25 household contacts.
    - DPM-USS: 49 index cases, 21 household contacts.
- **Senegal**
  - 37 Index cases, 190 household contacts.

Samples collected: Swabs (naso/oropharyngeal), nasosorption, nasal scrapes, blood, urine stool

Main challenges and difficulties at the sites

- Reluctance of household contacts of Covid-19 positive cases to participate in the study:
  - Prejudices, stigmatization of people having when study nurses visit their home.
  - The fear of COVID 19 exposure when they come to health facilities

  The exact reasons will be recorded in the KAP study that we are conducting in parallel.
- Technical difficulty in collecting nasal scrap samples:
  - Study participants find the nasosorption and nasal scrapes techniques unpleasant.
  - Therefore, they don't give samples.
- Training of study teams for nasosorption and nasal scrapes:
  - Due to travel restrictions, trainings are organized remotely.
  - On-site training would certainly improve these results.

On behalf of the consortium members, thank you for your attention!

- **Lead applicants**
- A.A. Adegnika, B. Lell | CERMEL, Gabon

- **Co-applicants:**
- M. Yazdanbahksh, A Geluk, L. Wammes | LUMC, the Netherlands
- M. Bouyou-Akotet | DPM-USS, Gabon
- M. Mbow, S. Mboup | IRESSEF, Senegal
- C. Koehler | EKUT, Germany
- Adane Mihret | AHRI, Ethiopia