COVID-19

FAMSA TECHNICAL WORKING GROUP

Weekly Bulletin

SATURDAY
17th May 2020
Issue #2

50,239 CUMULATIVE CASES IN WHO AFRICA

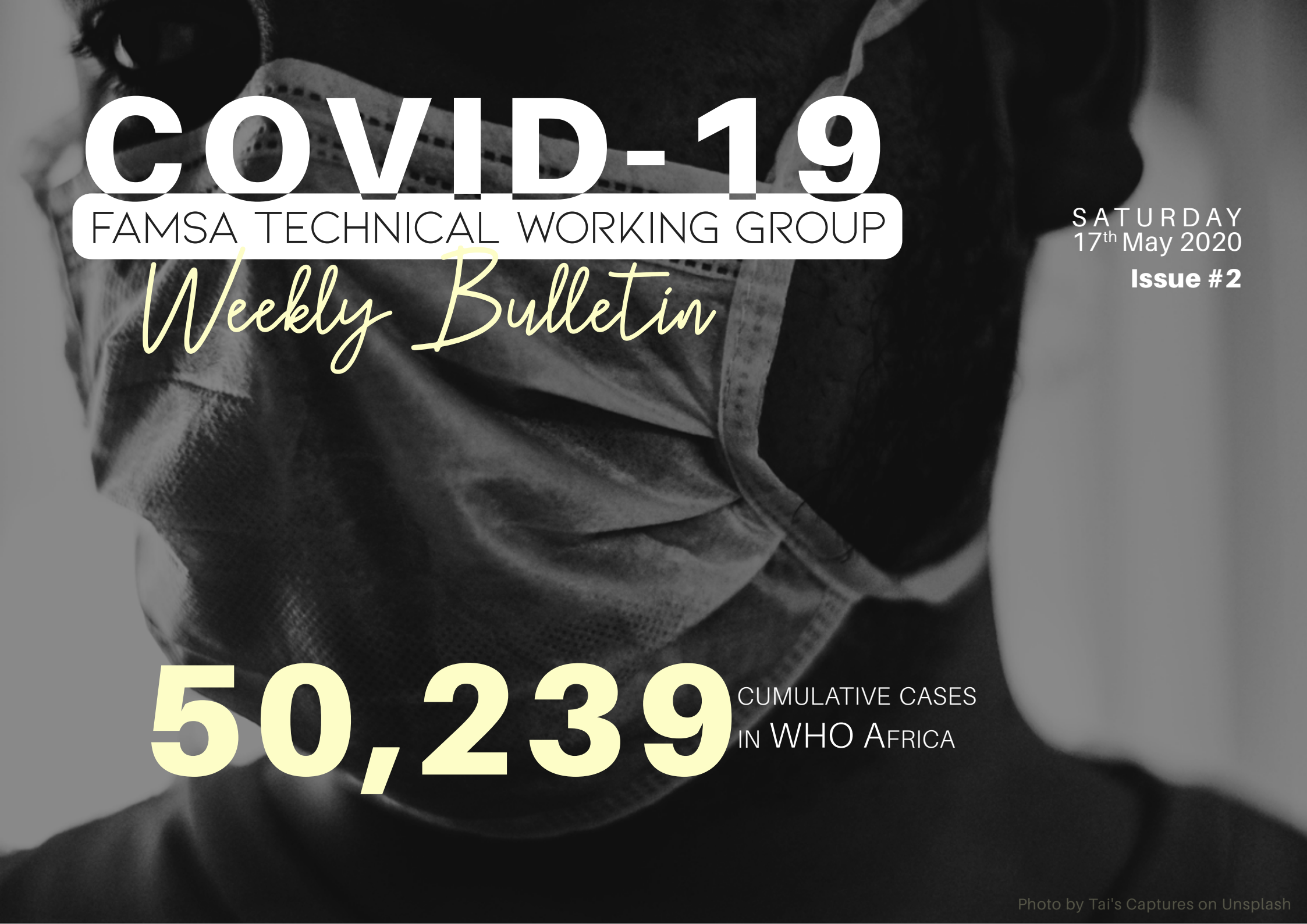


Photo by Tai's Captures on Unsplash

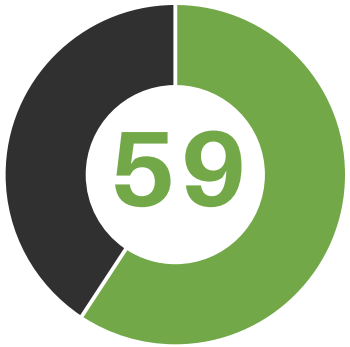
50,239 cumulative cases in WHO African region

average age of cases **39** YRS OLD

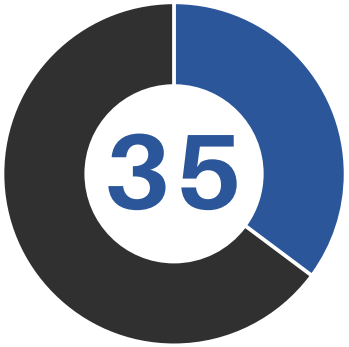
1,553 cumulative deaths in WHO African region

average age of deaths **49** YRS OLD

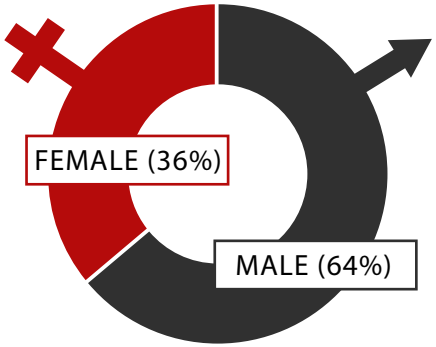
ACTIVE CASES(%)



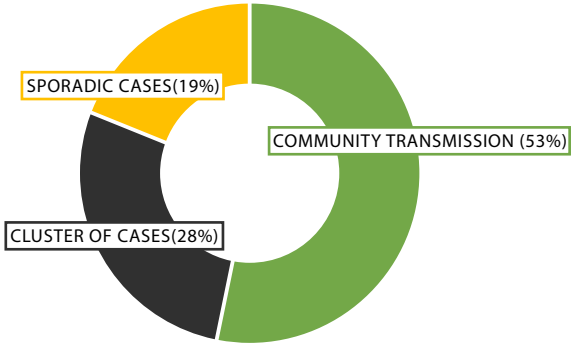
RECOVERIES(%)



SEX

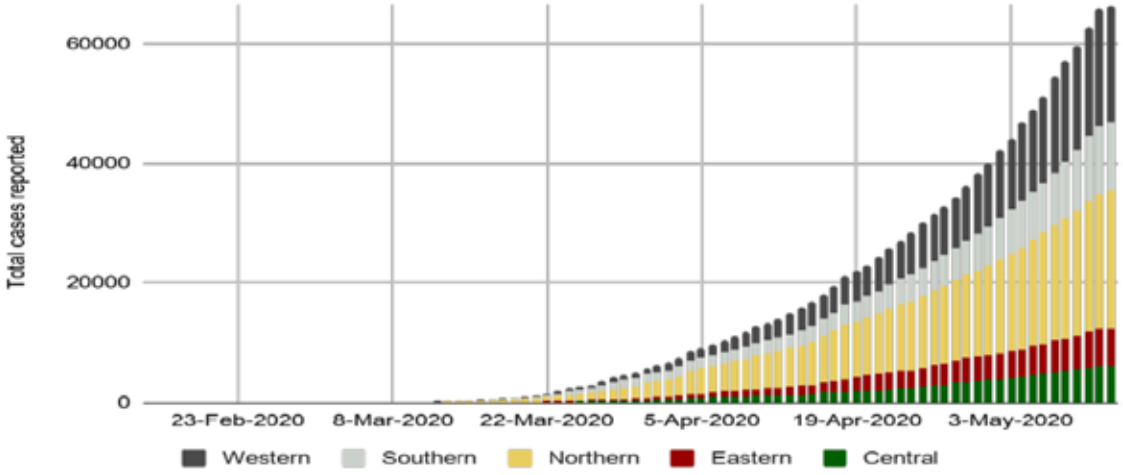


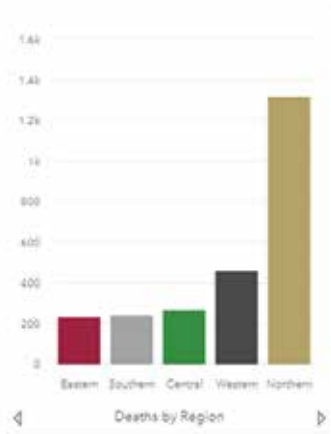
TRANSMISSION PATTERN

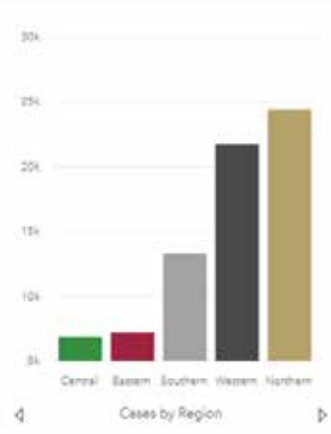


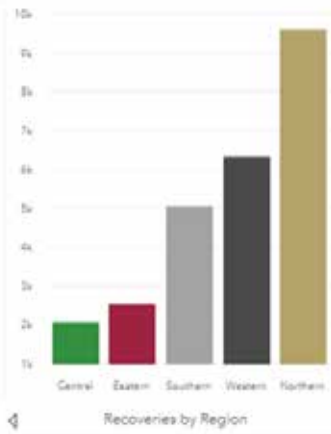
SOURCE: WHO Africa Dashboard

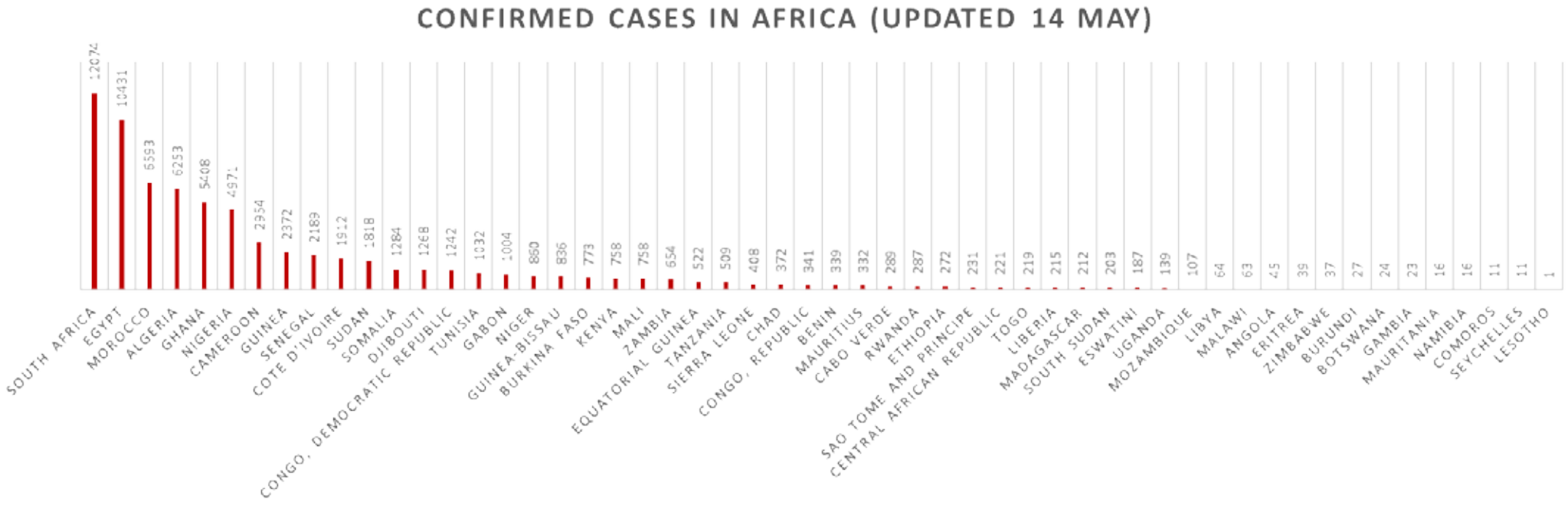
Chart 1: Cumulative number of confirmed COVID-19 cases reported by region, 17 Feb - 12 May 2020











COVID-19 HAS NOW AFFECTED EVERY COUNTRY IN AFRICA

The Maseru Bridge border post between Lesotho and South Africa. Photograph: Molise Molise/AFP via Getty Images

Lesotho recently recorded its first case on Wednesday 13 May. The country had until Tuesday enjoyed the benefit of being the only COVID-19 free country on the African Continent.

The first positive case comes a week after the country lifted its national lockdown. Lesotho's lockdown started on 30 April and lasted until 5 May. The lockdown was lifted against the advice of the inter-ministerial committee which said the country was not prepared to deal with a possible outbreak since its quarantine facilities comprised just 148 beds.

According to the Health Ministry: "To date, we have sent 597 specimens for testing at NICD, 295 are negative and 301 are still pending."

There are also fears that more cases could arise as many Lesotho nationals continue to ignore the government's pleas not to illegally cross back into the country from neighbouring South Africa, which has been hit harder by the virus.

South Africa has the highest number of Covid-19 cases on the continent (over 12000). (Source: Guardian)

WHO SETS UP TREATMENT CENTRES

WHO Operations Support and Logistics (OSL), in collaboration with a technical network of universities, architects, biomedical engineers and other health experts, is working to support the establishment of COVID-19 treatment centres, self-quarantine and community facilities at the request of countries seeking technical guidance in setting up such facilities. Since March, OSL's Health Technical Unit, with the voluntary support of architects and engineers from the Technical Network, has helped set up COVID-19 treatment centres in the following countries: Senegal, Tanzania, Burkina Faso, Sao Tome and Principe, Nigeria, Republic of Congo, Ivory Coast, Mauritius, Australia and Italy; providing guidance for construction of treatment centres or repurposing of existing buildings. To coordinate technical assistance, OSL has established a COVID-19 Help Desk from which information and support can be requested via oslhealthtech@who.int.

(Source: WHO)

COVID-19 FREE: MAURITIUS

Mauritius declared total recoveries from coronavirus infections as of May 11, 2020. The island nation's official COVID-19 page said 322 people had recovered out of the 332 confirmed cases so far. 10 people have since died. In a communique, the Ministry of Health and Wellness said on Monday that 73,572 COVID-19 tests have been carried out, including 50,077 Rapid Antigen Tests and 23,495 PCR tests. A lockdown, however, remains in place to contain the possible spread of the virus.

(Source: CGTN Africa)

PHOTO COURTESY OF: Xavier Coiffic on Unsplash

SMOKING & COVID-19

On tobacco use and COVID-19, a review of studies by public health experts convened by WHO on 29 April 2020 found that smokers are more likely to develop severe disease with COVID-19, compared to non-smokers. Smoking impairs lung function making it harder for the body to fight off coronaviruses and other diseases. Tobacco is also a major risk factor for noncommunicable diseases like cardiovascular disease, cancer, respiratory disease and diabetes which put people with these conditions at higher risk for developing severe illness when affected by COVID-19. WHO urges researchers, scientists and the media to be cautious about amplifying unproven claims that tobacco or nicotine could reduce the risk of COVID-19. There is currently insufficient information to confirm any link between tobacco or nicotine in the prevention or treatment of COVID-19.

(Source: WHO)

AFRICAN RESEARCHERS LEAD DEVELOPMENT OF SURVEILLANCE SYSTEM FOR DETECTING EMERGING PANDEMICS IN REAL TIME.

Researchers at the African Center of Excellence for Genomics of Infectious Diseases (ACEGID), Redeemer's University, Ede Nigeria, have begun a partnership with the Africa Centres for Disease Control and Prevention (Africa CDC), the Broad Institute of MIT and Harvard and other research and public health partners, to implement a Sentinel project for an early warning system in Africa.

The Sentinel project has three pillars: (1) detect viruses using cost effective technologies, (2) connect public health experts to gathered data and (3) empower public health experts via training.

The Director of the Africa CDC, John Nkengasong says "the potential of Sentinel to transform infectious disease surveillance in Africa is boundless, and its mission complements that of Africa CDC: to strengthen surveillance and emergency response, and improve management of public health threats of regional and international consequence".

(Source: Africa CDC)

COVID-19: ADVERSE MENTAL HEALTH OUTCOMES FOR HEALTHCARE WORKERS

Healthcare workers are exposed to more than just the physical risk of illness from contact with COVID-19 infected patients. They also face a psychological outcome. Preliminary data from China and Italy during the COVID-19 pandemic reported depression (50.3%), anxiety (44.6%), and insomnia (34.0%) in healthcare workers. This risk may be compounded by high rates of pre-existing mental health and substance use disorders in this population, with physicians having rates of suicide among the highest of any profession. Studies have also highlighted the adverse effects that lack of PPE could have on mental health with a lingering sense of institutional betrayal. Though they are closer to the healthcare system, they may not seek effective interventions and treatment due to stigma and lack of time. May being the mental health month, advocacy for health worker's mental well-being should be amplified. Organizations should support staff voices and efforts to obtain PPE when possible as well as provide psychological first aid (PFA) to mitigate this risk.

(Source: British Medical Journal)

SEX DIFFERENCES IN HEALTH: THE COVID-19 CONTEXT

Sex and gender are among the most important determinants of health even though they are often ignored in biomedical research and rarely incorporated into clinical care. Spagnolo P. A., et al call for sex- and gender-specific and differentiating factors to be urgently included in the research, prevention, and therapeutics implementation response to COVID-19 pandemic based on the following facts:

Firstly, although available sex-disaggregated data for COVID-19 show equal numbers of cases between sexes, current evidence indicates that fatality rates are higher in men than in women; secondly, we may elucidate to what extent sex biases in COVID-19 outcomes are linked to differences in sex hormone profiles since sex hormones contribute to different immunologic responses in men and women: As a general rule, estrogens promote both innate and adaptive immune responses, which result in faster clearance of pathogens and greater vaccine efficacy, there is also a known estrogen-induced decreased expression of angiotensin-converting enzyme 2, which acts as a functional receptor for SARS-CoV-2 to enter host target cells. Conversely, testosterone has largely suppressive effects on immune function, which may explain the greater susceptibility to infectious diseases observed in men.

Thirdly, exposure to persistent stress (keeping in mind COVID-19 is a potent stressor) is associated with increased vulnerability to stress-related psychiatric disorders (such as posttraumatic stress disorder, panic disorder, and major depression), which occur more frequently in women than men.
Lastly, gender-related factors affect adherence to treatment, access to health care, and health-seeking behaviours.

Therefore sex is an important consideration in the context of COVID-19.
(Source: Annals of Internal Medicine)

BCG VACCINE DOES NOT PREVENT COVID-19

In a cohort study of 0ver 72000 Israeli adults aged 35 to 41 years, BCG vaccination in childhood was associated with a similar rate of positivity for #SARSCoV2 compared with no vaccination, 11.7% vs 10.4% respectively. Researchers concluded that BCG vaccination in childhood has no protective effect against COVID-19.
(Source: Journal American Medical Association)

HYDROXYCHLOROQUINE AND/OR AZITHROMYCIN NOT EFFECTIVE TREATMENTS

Among patients hospitalized with COVID-19, treatment with hydroxychloroquine, azithromycin, or both was not associated with significantly lower in-hospital mortality.

(Source: Journal American Medical Association)

OUTBREAK OF KAWASAKI-LIKE DISEASE.

A case series from Bergamo, Italy suggests COVID19 may be linked to a rare Kawasaki-like disease in young children, adding to reports of similar cases from New York, USA & South East England, UK – though experts stress that it is rare & children minimally affected overall.
(Source: Lancet)

CORONAVIRUS BLOOD-CLOT MYSTERY INTENSIFIES

Purple rashes, swollen legs, clogged catheters and sudden death — blood clots, large and small, are a frequent complication of COVID-19. Studies from the Netherlands and France suggest that clots arise in 20–30% of critically ill COVID-19 patients.

Some researchers view clotting as a key feature of COVID-19. The virus's effects on the immune system could also affect clotting, but the reason for clotting is still a mystery. One possibility is that SARS-CoV-2 is directly attacking the endothelial cells that line the blood vessels, Endothelial cells harbour the same ACE2 receptor that the virus uses to enter lung cells and virus's effects on the immune system could also affect coagulation and clotting through a variety of pathways. Furthermore, the virus seems to activate the complement system, a defence mechanism that sparks the clotting process.
(Source: Nature news)

COVID-19, A POSSIBLE VACCINE FROM CHINA!

Qiang Gao and Co has developed a pilot-scale production of a purified inactivated SARS-CoV-2 virus vaccine candidate (PiCoVacc). The PiCoVacc induced SARS-CoV-2 specific neutralizing antibodies in mice, rats and non-human primates. These antibodies neutralized 10 representative SARS-CoV-2 strains, suggesting a possible broader neutralizing ability against SARS-CoV-2 strains.
(Source: Science

VACCINE: HOPE FROM RECOVERED CASES??

According to a recent study, Yang WU & Co, published in Science, four human-origin monoclonal antibodies were isolated from
a convalescent patient. All of the four displayed neutralization abilities: B38 and H4 blocks the binding between virus S-protein RBD and cellular receptor ACE2.
A therapeutic study in a model even validated that these antibodies can reduce virus titres in infected lungs. These results highlight the promise of antibody based therapeutics and provide a structural basis for rational vaccine design.
(Source: Science)

NEUROLOGIC FEATURES IN SEVERE SARS-COV-2 INFECTION

In an observational series of 58 consecutive patients with Covid-19 and acute respiratory distress syndrome (ARDS). Severe agitation (69%) and corticospinal signs (67%) were common.
In 2 of 13 patients, MRI of the brain showed small acute strokes, and in 1 patient, imaging showed a subacute stroke. ARDS due to SARS-CoV-2 infection was associated with encephalopathy, prominent agitation and confusion, and corticospinal tract signs. Data are lacking to determine which of these features were due to critical illness–related encephalopathy, cytokines, or the effect/withdrawal of medication, and which features were specific to SARS-CoV-2 infection.
(Source: New England Journal of Medicine)

The report has been prepared by the
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