

COVID-19

FAMSA TECHNICAL WORKING GROUP

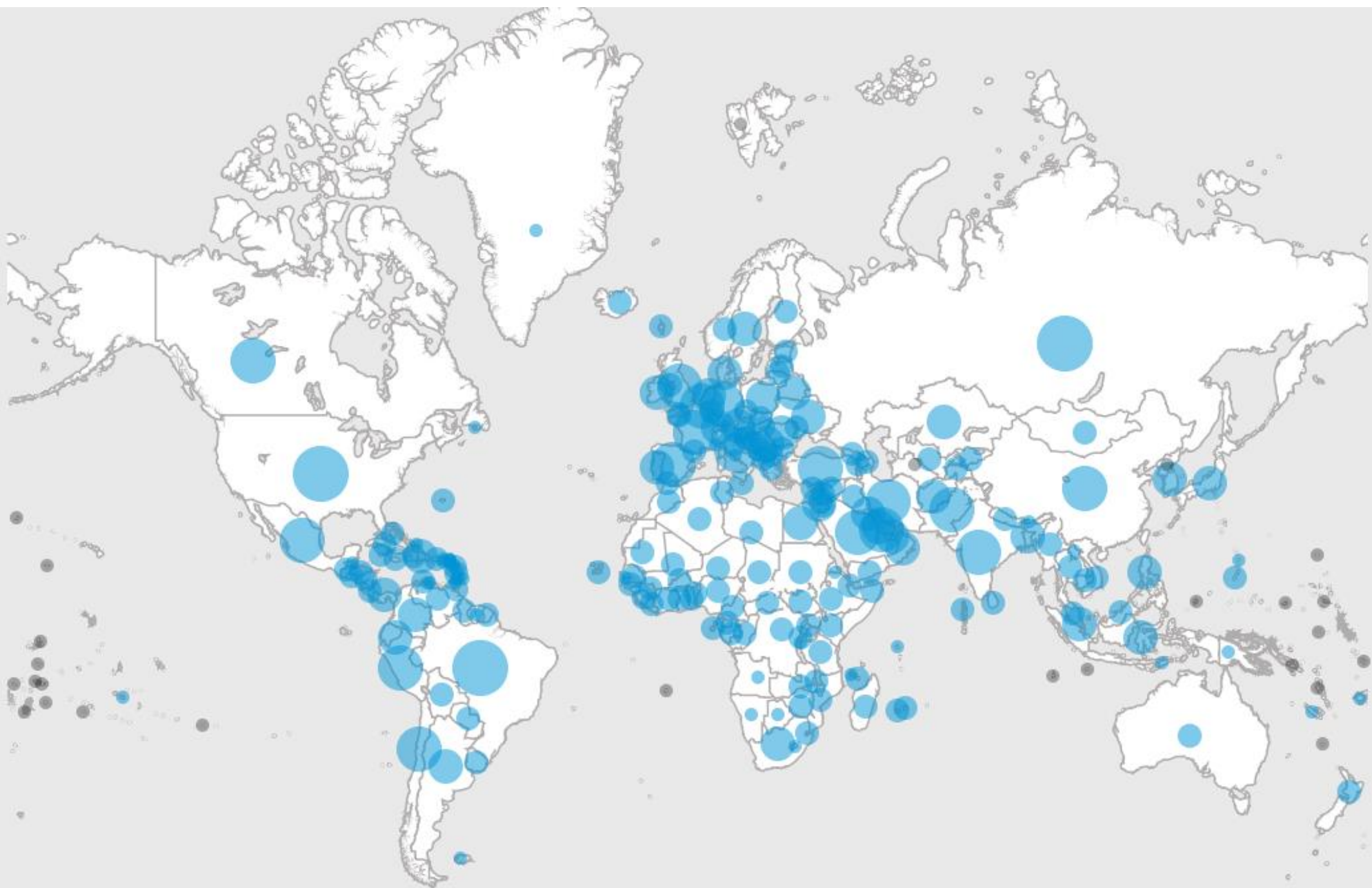
Weekly Bulletin

SATURDAY
6th June 2020

Issue #4

176,807

CUMULATIVE CASES



GLOBALLY (as of 9 June)

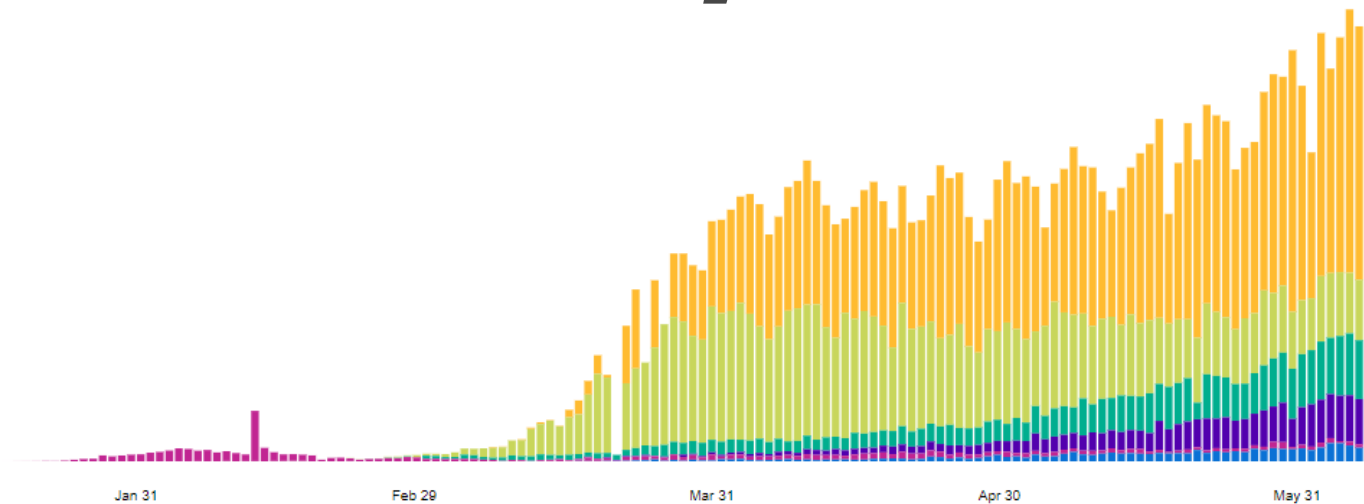
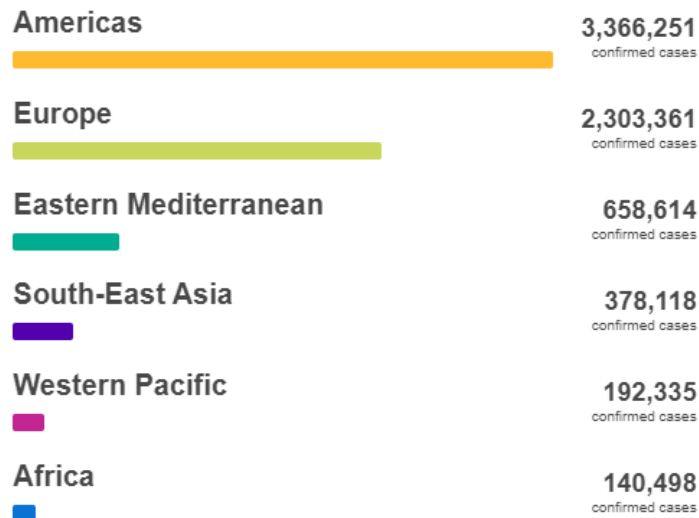
7,039,918 cases

131,296 new cases

404,396 deaths

Case Comparison

WHO Regions





176,807

CUMULATIVE CASES



4,902

DEATHS



78,267

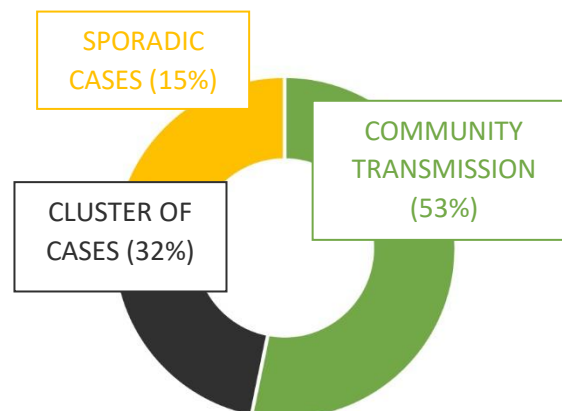
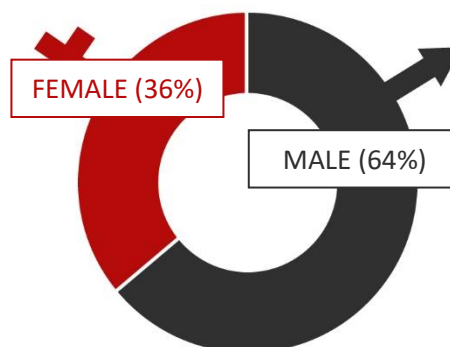
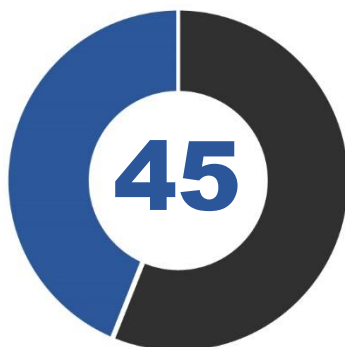
RECOVERIES

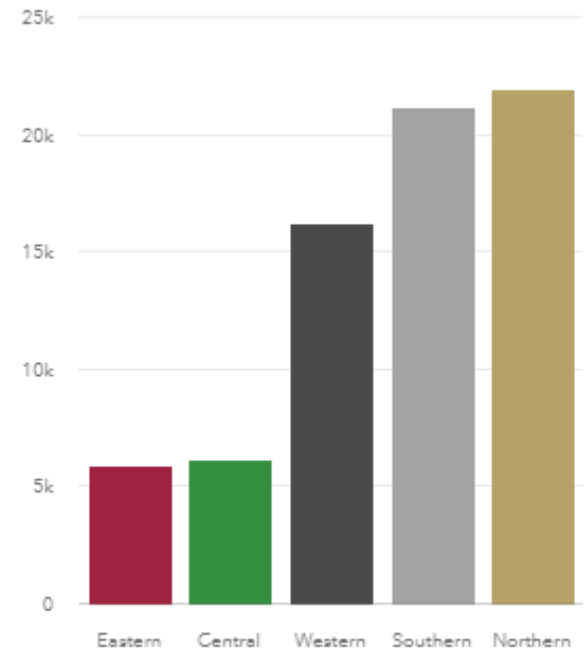
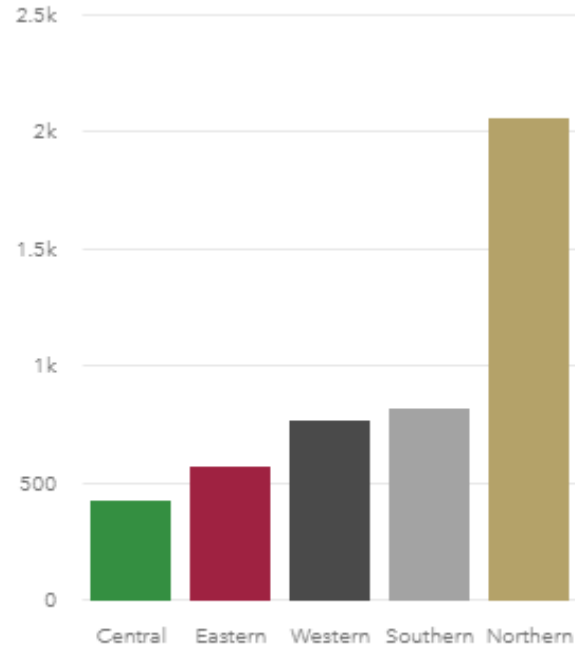
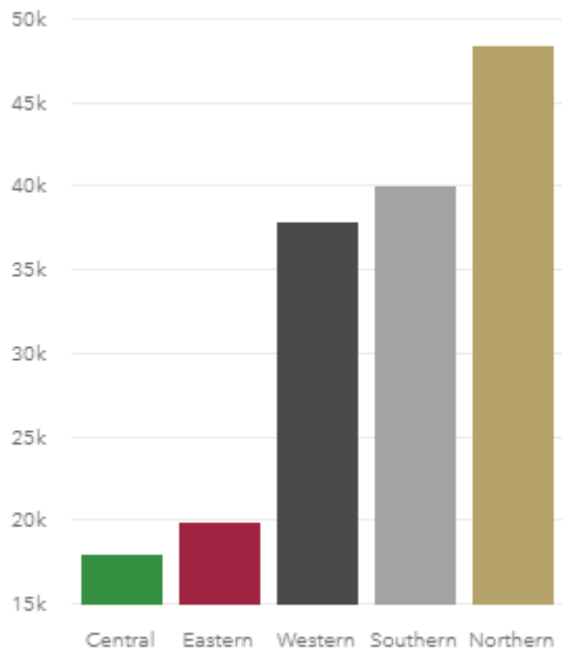
ACTIVE CASES (%)

RECOVERIES (%)

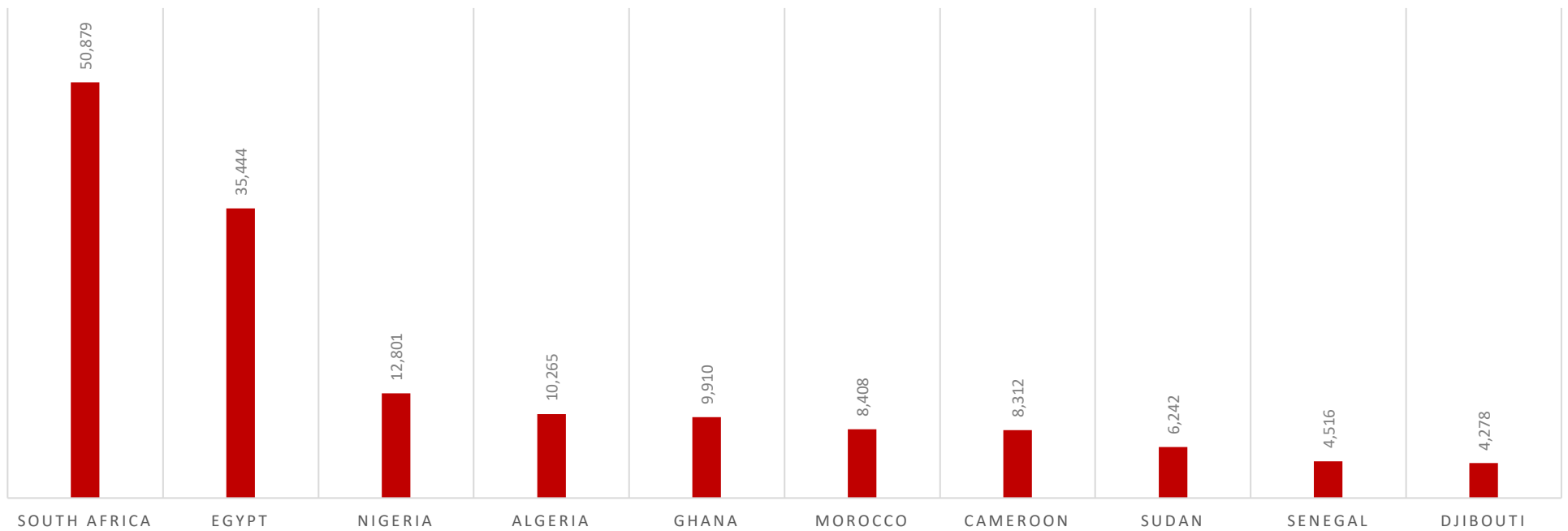
SEX

TRANSMISSION
PATTERN





TOP 10 COUNTRIES WITH HIGHEST CASES IN AFRICA (UPDATED 5 JUNE)



FIRST HUMAN TRIAL OF COVID-19 VACCINE FINDS IT IS SAFE AND INDUCES RAPID IMMUNE RESPONSE

The study published on 22 May from Nanjing, China described safety, tolerability and immunogenicity of a recombinant adenovirus type-5 (Ad5) vectored COVID-19 vaccine. The vaccine expresses the spike glycoprotein of the SARS-Cov-2 Strain. Three doses (low, middle and high) of the vaccine were administered by intramuscular injection to 108 healthy adults (51% male and 49% female ;mean age 36.3). At day 14 ELISA antibodies and neutralising antibodies increased significantly and peaked at day 28 post-vaccination. Specific T-cell response peaked at day 14 post-vaccination. Adverse reactions were pain at injection site (54%) fever (46%) fatigue (44%) headache (39%) and muscle pain (17%). Most of there adverse reactions were mild to moderate in severity. This means that the Ad5 vectored COVID-19 vaccine is tolerable and immunogenic at 28 days post-vaccination.

(Lancet)

COVID-19 PANDEMIC IS DISRUPTING ROUTINE VACCINATION

COVID 19 is disrupting life-saving immunization services around the world, putting millions of children – in rich and poor countries alike – at risk of diseases like diphtheria, measles and polio. Since March 2020, routine **childhood immunization services** have been disrupted on a global scale - substantially **hindered** in at least **68 countries** - that may be unprecedented since the inception of expanded programs on immunization (EPI) in the 1970s. This is likely to affect approximately **80 million children under the age of 1** living in these countries. The reasons for disrupted services vary. Some parents are reluctant to leave home because of restrictions on movement, lack of information or because they fear infection with the COVID-19 virus. And many health workers are unavailable because of restrictions on travel, or redeployment to COVID response duties, as well as a lack of protective equipment. Transport delays of vaccines are also exacerbating the situation.

"Any suspension of childhood vaccination services is a major threat to life. WHO is working with governments around the world to ensure supply chains remain open and lifesaving health services are reaching all communities" declares Dr Tedros the Director General of the WHO.

Despite the challenges, several countries are making special efforts to continue immunization. Uganda is ensuring that immunization services continue along with other essential health services, even funding transportation to ensure outreach activities.

(World Health Organization)

ISCHEMIC STROKE IN YOUNG ADULTS PRESENTING WITH SARS-COV-2

Researchers in New York City present a series of **five patients younger than 50** who presented with **large vessel ischemic stroke** to an academic medical center within a 2-week period. Each was subsequently found to be infected with SARS-CoV-2. Three patients had one or more risk factors for stroke (e.g., hypertension, hyperlipidemia, diabetes, prior stroke); only the patient with a history of stroke was under treatment for risk-factor modification.

The patients presented a median of 8 hours after symptom onset (range, 2–28 hours) with median NIH stroke scale score of 16 (range, 13–23). Each patient underwent at least head computed tomography (CT) and CT angiogram and had a solitary large vessel occlusion. Four underwent successful endovascular thrombectomy. Each patient was tested for SARS-CoV-2. Two patients were asymptomatic, one had isolated lethargy, and two experienced cough along with other symptoms. No one was leukopenic; three had elevated D-dimer and ferritin levels. At last follow-up, three had been discharged and two remained admitted, one of these intubated and sedated with multiorgan failure.

(New England journal of Medicine)

MENTAL HEALTH TIPS FOR HEALTH WORKERS

Health care providers, from physicians and nurses to allied professionals and first-line responders fear for their safety and the safety of their families and patients. They face immense grief for those who have died and feel guilt for not saving their patients. Regardless of their training, backgrounds, or personal strength, they are all human and are affected by pain and loss. Health care professionals are at higher risk for negative effects of chronic stress. Even before the pandemic, physicians exhibited higher rates of depression and anxiety than other professional groups.

The good news: risk for burnout and long-term negative consequences can be decreased. **As mental health professionals, this is our plea:” If you are struggling, let us help you!”**

- **Practice self-care** by taking time to eat, sleep, and rejuvenate. To make that time, lean on social supports: colleagues, co-workers, teammates, friends, and families. They will understand because they have the same fears, challenges, and needs.
- Physical distancing cannot mean social isolation. **Support groups** of peers, informal opportunities to share our experiences are invaluable.
- Monitoring and early detection of potential problems: **Look for warning signs** in yourself and others.
- If you are struggling, **ask for help** early.
- **Don't ignore these signs** in your colleagues. They probably need your concern and support.

Health care workers, particularly physicians, are often reluctant to seek mental health care because of stigma and a medical culture that can view help-seeking behavior as a sign of weakness. As difficult as it can be to ask for help, do it for your patients, colleagues and teammates who care for you and depend on you. Most important, do it for yourself and your families.

(Annals of Internal Medicine)

VIRAL AND HOST FACTORS RELATED TO THE CLINICAL OUTCOME OF COVID-19

In this study they analyzed the clinical, molecular and immunological data from 326 confirmed cases of COVID-19 in Shanghai. Genomic sequences of SARS-CoV-2 assembled from 112 quality samples together with sequences in the Global Initiative on Sharing All Influenza Data (GISAID) showed a stable evolution and suggested two major lineages with differential exposure history during the early phase of the outbreak in Wuhan. Nevertheless, they exhibited similar virulence and clinical outcomes.

Lymphocytopenia, especially the reduced CD4+ and CD8+ T cell counts upon admission, was **predictive of disease progression**. **High levels of IL-6 and IL-8** during treatment were observed in patients with **severe or critical disease** and correlated with decreased lymphocyte count. The determinants of disease severity seemed to stem mostly from host factors such as **age**, **lymphocytopenia**, and its associated **cytokine storm**, whereas viral genetic variation did not significantly affect the outcomes.

(Nature)

MORTALITY AND PULMONARY COMPLICATIONS IN PATIENTS UNDERGOING SURGERY WITH PERIOPERATIVE SARS-COV-2 INFECTION

An international, multicentre, cohort study of 1128 patients undergoing surgery who had SARS-CoV-2 infection confirmed within 7 days before or 30 days after surgery at 235 hospitals in 24 countries found pulmonary complications were present in 577 (51.2%) of 1128 patients; 30-day mortality in these patients was 38.0% (219 of 577), accounting for 82.6% (219 of 265) of all deaths. In adjusted analyses, 30-day mortality was associated with male sex age 70 years or older versus younger than 70 years, American Society of Anesthesiologists grades 3–5 versus grades 1–2, malignant versus benign or obstetric diagnosis, emergency versus elective surgery, and major versus minor surgery.

Postoperative pulmonary complications occur in half of patients with perioperative SARS-CoV-2 infection and are associated with high mortality. Thresholds for surgery during the COVID-19 pandemic should be higher than during normal practice, particularly

FACEMASKS AT HOME?

Wearing face masks at home might help ward off the spread of #COVID19 infection among family members living in the same household, but only before symptoms develop, suggests a study of Chinese families in Beijing.

The overall secondary attack rate in households was 23.0%.
Facemasks were 79% effective

and disinfection was 77% effective in preventing transmission, whilst close frequent contact

in the household increased the risk of transmission 18 times, and diarrhea in the index patient

increased the risk by four times. Results demonstrate the importance of pre-symptomatic

infectiousness of COVID-19 patients, and shows that wearing masks after illness onset does

not protect.

What do the new findings imply?

It informs universal face mask use and social distancing, not just in public spaces, but inside

the household with members at risk of getting infected. This further supports universal face

mask use, and also provides guidance on risk reduction for families living with someone in

quarantine or isolation, and families of health workers, who may face ongoing risk.

(British Medical Journal)

HIV-INFECTED INDIVIDUALS SHOULD NOT BE CONSIDERED TO BE PROTECTED FROM SARS-COV-2 INFECTION OR TO HAVE LOWER RISK OF SEVERE DISEASE

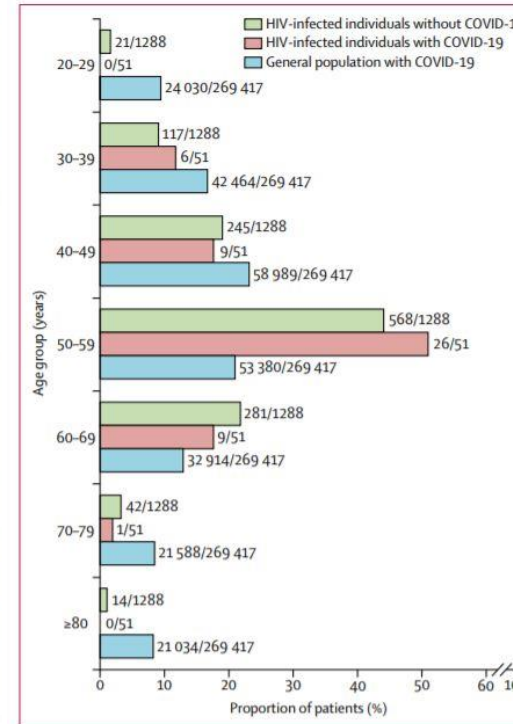


Figure 2: Distribution of HIV-infected individuals with and without COVID-19, and the general population in the Community of Madrid with COVID-19 according to age

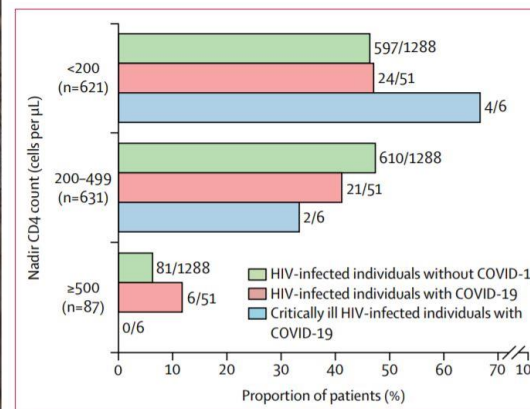


Figure 3: HIV-infected individuals with and without COVID-19 by nadir CD4 cell counts category

51 HIV-infected individuals were diagnosed with COVID-19 (incidence 1.8%, 95% CI 1.3–2.3). Mean age of patients was 53.3 years (SD 9.5); eight (16%) were women, and 43 (84%) men. 35 (69%) cases of co-infection had laboratory confirmed COVID-19, and 28 (55%) required hospital admission. Age and CD4 cell counts in 51 patients diagnosed with COVID-19 were similar to those in 1288 HIV-infected individuals without; however, 32 (63%) with COVID-19 had at least one comorbidity (mostly hypertension and diabetes) compared with 495 (38%) without COVID-19 ($p=0.00059$). 37 (73%) patients had received tenofovir before COVID-19 diagnosis compared with 487 (38%) of those without COVID-19 ($p=0.0036$); 11 (22%) in the COVID-19 group had previous protease inhibitor use (mostly darunavir) compared with 175 (14%; $p=0.578$). Clinical, analytical, and radiological presentation of COVID-19 in HIV-infected individuals was similar to that described in the general population. Six (12%) individuals were critically ill, two of whom had CD4 counts of less than 200 cells per μL , and two (4%) died. SARS-CoV-2 RT-PCR remained positive after a median of 40 days from symptoms onset in six (32%) individuals, four of whom had severe disease or low nadir CD4 cell counts.

(lancet)

AN ASSESSMENT OF EARLY CLINICAL COVID-19 GUIDELINES

A rapid review was conducted to determine the availability, quality, and inclusivity of clinical guidelines produced in the early stage of the coronavirus disease 2019 (covid-19) pandemic. 2836 studies were identified, of which 2794 were excluded after screening. Forty two guidelines were considered eligible for inclusion, with 18 being specific to covid-19. Overall, the clinical guidelines lacked detail and covered a narrow range of topics. Recommendations varied in relation to, for example, the use of antiviral drugs. **The overall quality was poor,** particularly in the domains of stakeholder involvement, applicability, and editorial independence. **Links between evidence and recommendations were limited. Minimal provision** was made for vulnerable groups such as **pregnant women, children, and older people.**

Guidelines available early in the covid-19 pandemic had methodological weaknesses and neglected vulnerable groups such as older people. A framework for development of clinical guidelines during public health emergencies is needed to ensure rigorous methods and the inclusion of vulnerable populations.

(British Medical Journal)

COVID-19 AND NEUROLOGICAL MANIFESTATIONS

Coronavirus infection of the nervous system occurs via trans-synaptic transfer across infected neurons, CNS entry via the olfactory nerve, infection of vascular endothelium, or leukocyte migration across the blood-brain barrier.

The most common neurologic complaints of COVID-19 are anosmia, ageusia, and headache, but stroke, impairment of consciousness, seizure, and encephalopathy are also reported.

(Journal of the American Medical Association)

AFRICA CDC DEPLOYS 28 FRONTLINE RESPONDERS

For the first time, the Africa Centre for Disease Control and Prevention (Africa CDC) in collaboration with the Operations Division of the African Union Peace and Security Department (PSD) successfully deployed 28 frontline responders from the Democratic Republic of Congo (DRC) to Burkina Faso, Cameroon, Mali and Niger through activation of the African Union Strategic Lift Capability.

(Africa Union)

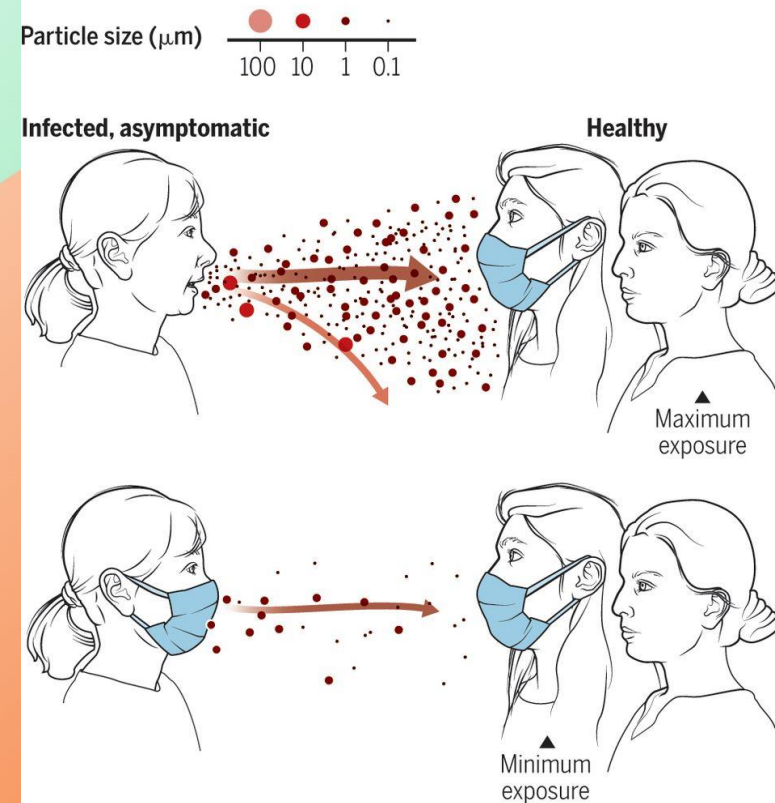
MASKS REDUCE TRANSMISSION

Aerosol transmission of viruses must be acknowledged as a key factor leading to the spread of infectious respiratory diseases. Evidence suggests that SARS-CoV-2 is silently spreading in aerosols exhaled by highly contagious infected individuals with no symptoms. Owing to their smaller size, aerosols may lead to higher severity of COVID-19 because virus-containing aerosols penetrate more deeply into the lungs is essential that control measures be introduced to reduce aerosol transmission. A multidisciplinary approach is needed to address a wide range of factors that lead to the production and airborne transmission of respiratory viruses, including the minimum virus titer required to cause COVID-19; viral load emitted as a function of droplet size before, during, and after infection; viability of the virus indoors and outdoors; mechanisms of transmission; airborne concentrations; and spatial patterns. More studies of the filtering efficiency of different types of masks are also needed. COVID-19 has inspired research that is already leading to a better understanding of the importance of airborne transmission of respiratory disease.

(Science)

Masks reduce airborne transmission

Infectious aerosol particles can be released during breathing and speaking by asymptomatic infected individuals. No masking maximizes exposure, whereas universal masking results in the least exposure.



GRAPHIC: V. ALTOUNIAN/SCIENCE

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