

The background of the slide is a deep blue space scene. In the upper center, a bright sun or star is visible, creating a lens flare effect. Below it, the curved horizon of the Earth is seen from space, with a thin white line of clouds. The overall color palette is dominated by various shades of blue and black.

COVID-19 FAMSA TECHNICAL WORKING GROUP

COVID-19 Research Bulletin

Vol 1,2022

COVID-19 AND MENTAL HEALTH

Patients are more likely to suffer mental health problems during the post-acute phase of covid-19. To date, 12 studies have been hampered by a restrictive selection of mental health outcomes and a maximum follow-up of six months.

A study conducted by Yan Xie et. al, shows that the risk of mental health disorders in people with covid-19 compared with those afflicted by the pandemic's socioeconomic effects.

Individuals that suffered from an acute infection of covid-19 had an increased susceptibility to developing mental health disorders such as anxiety disorders, depressive disorders, stress and adjustment disorders, opioid use disorders, and many more. In addition to these are neurocognitive decline and sleep disorders.



COVID-19 AND MENTAL HEALTH

The mental health risks are also higher than those infected with the influenza virus. This is represented by data showing that approximately 11 people out of 1000 are at risk of anxiety related disorders; and about 23 in 1000 people are at risk of developing sleep disorders.

From this study, we can conclude that as well as treating and managing COV-ID19 symptoms, mental health of patients whether hospitalized or not should be treated as a priority in order to also reduce the number of mental health issues globally, and to reduce the correlation between COVID19 and mental health disorders.

(Source BMJ ;Risks of mental health outcomes in people with covid-19: cohort study | The BMJ) | psum



EFFECTIVENESS OF THE VACCINE AFTER COVID-19 INFECTION

Patients who have recovered from coronavirus disease have a lower risk of infection with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (Covid-19).

G9A study was done in 2021 by Hammerman et. al, where reinfection rates in patients who had recovered from SARS-CoV-2 infection before any vaccination against the disease.

The reinfection rates were compared among patients who had received the vaccine and those that haven't. Of these patients, those that were vaccinated had 0.41% got reinfected; while those that were unvaccinated, 3.3% got reinfected with the virus. This placed the vaccine efficiency at 82%.



EFFECTIVENESS OF THE VACCINE AFTER COVID-19 INFECTION

These results show that even while having been previously infected by the virus, being vaccinated places individuals at a significantly lower risk of being re-infected through just one dose of the vaccine. Therefore, developing immunity through vaccination regardless of being infected is one of the best ways to be protected against Covid-19. This is especially true for the elderly population who are at a greater risk. Even though vaccine efficiency was lower in individuals 65 and older than in younger patients, older patients still received effective protection from the vaccine.

(Source: New England journal of Medicine https://www.nejm.org/doi/full/10.1056/NEJMoa2119497?query=featured_coronavirus)



COVID-19 VACCINE RECEPTION IN AFRICA

From a survey of 5,416 people that comprises 94% of them living in 34 African countries, and the other 6% living in the diaspora a couple of discoveries have ensued. While 63% would consider it imperative to get a COVID-19 vaccine as soon as possible, 26% see vaccination as unnecessary.

However, 40% support compulsory vaccinations, and 43% believed there are good alternatives to the COVID-19 vaccines.

According to Shameem Jaumdally who doubles as a co-author and senior research scientist at the University of Cape Town's Lung Institute, South Africa; People in Africa are more likely hesitant to vaccines reception if there's a perceived risk of sickness or infections. For many, the worry is more about the side effects. Moreso, the risk of predisposition to the COVID-19 virus itself.

As a strategy to combat myths and misconceptions about vaccines, Abdul-Azeez Anjorin, a medical virologist at Lagos State University, stresses the use of personal testimonials of survivors to whom their survivals are owed to vaccination.

The delayed arrival of vaccines to African nations makes the COVAX initiative aims to not yet be reached optimally.

This accounts for why 7% of Africans are vaccinated so far according to Folorunso Oludayo Fasina, Professor of Veterinary Medicine.

COVID-19 VACCINE RECEPTION IN AFRICA



(Citizens receive COVID-19 vaccine at the Gautrain Sandton Station pop-up vaccination site 2021 in Johannesburg, South Africa. Credit: Sharon Seretlo/Gallo Images via Getty Images)

(Reference: Nature; <http://nature.com/articles/d44148-022-00003-0>)

COMMUNITY SARS-COV-2 SEROPREVALENCE BEFORE AND AFTER THE SECOND WAVE OF INFECTIONS IN HARARE, ZIMBABWE.

A seroprevalence survey was conducted in three high-density communities in Harare, Zimbabwe before and after the second wave of SARS-CoV-2. This bid is to estimate the prevalence of the past SARS-CoV-2 in the serum.

The random communities surveyed include; Highfield, Budiro, and Mbare between November of 2020 and April of 2021.

This survey involved participants filling a questionnaire after which a dried blood spot sample was extracted.

The blood samples were tested for anti-SARS-CoV-2 nucleocapsid antibodies with the use of the Roche e801 platform.

From a total of 2340 subjects, antibody results were present for 70.1% and 73.1% participants in 2020 and 2021 respectively.

The median age was 22 years with 978 males. SARS-CoV-2 dominance was 19.0% in 2020 and 53.0% in 2021,

making the prevalence ratio 2.47 comparing 2020 and 2021. Interpretation from these findings goes thus:

With the second wave, one in two persons had been infected with the virus, raising the susceptibility of the whole community.

These results showed that the number of infected in these three communities supersede the reported number of cases for the whole city.

(Reference: LANCET [http://thelancet.com/journals/eclinm/article/PIIS2589-5370\(21\)00452-1/full text](http://thelancet.com/journals/eclinm/article/PIIS2589-5370(21)00452-1/full text))

VACCINE EQUITY: A FUNDAMENTAL IMPERATIVE IN THE FIGHT AGAINST COVID-19

Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-COV-2) was declared a global pandemic by the World Health Organisation (WHO) on March 11, 2020. Till date, COVID-19 remains a threat, and despite intensive efforts to curb further spread of the disease via the production of vaccines, about 47% of the world's population are unvaccinated or only partially vaccinated against the disease. Vaccine hesitancy, fear over vaccine safety and misinformation about vaccines amongst others have proved as barriers towards effective vaccination of individuals. As the number of unvaccinated individuals increases, the tendency of infections and emergence of new variants also increases; such as the Omicron Variant. Despite efforts of WHO to increase the equity of access to vaccines, global vaccination rates remain unequal. By December 30, 2021, only 7 African countries had achieved their target 40% vaccination rates and as at February 1, 2022, approximately 183 COVID-19 vaccine doses had been administered per 100 people in high-income countries, compared to just 14 doses per 100 people in Low-and-Middle-Income Countries (LMICs).

VACCINE EQUITY: A FUNDAMENTAL IMPERATIVE IN THE FIGHT AGAINST COVID-19

To bring the current pandemic under control, and to ensure a more coordinated and rapid global response to future pandemics, the vaccine manufacturing capacity in LMICs needs to be improved upon via the presence of trained medical personnel and equipment, provision of vaccine storage facilities and public willingness to take the vaccines. To survive this global pandemic, a collective responsibility is required and providing vaccine equity is a step in the right direction.

(Source PLOS ; <https://journals.plos.org/plosmedicine/article?id=10.1371/journal.pmed.1003948>)

PARTNERSHIP TO ACCELERATE COVID-19 TESTING (PACT): SCALING UP RAPID ANTIGEN SELF-TESTING

In 2020, the African Union (AU)/Africa CDC launched the Partnership to Accelerate COVID-19 Testing (PACT). By 4 February 2022, more than 95.5 million tests have been carried out and more than 10.8 million cases of COVID-19 have been detected in AU Member States. Though, according to WHO, 85% of Covid-19 cases remain undetected in Africa.

The recently emerged Omicron Variant also poses a challenge due to its asymptomatic nature.

The variant may lead to an increase in the number of infected people who do not seek medical attention.

When self-testing for Covid-19, the individual uses an approved SARS-CoV-2 In vitro diagnostic kit to collect their own sample and perform a COVID-19

antigen rapid diagnostic test (Ag-RDT) and further interpret the results. Access to self testing can greatly improve the detection of asymptomatic cases and allow individuals to obtain a rapid result, thereby enhancing the early detection, self-isolation, and treatment of individuals with Covid-19, which is essential in preventing further spread of the pandemic.

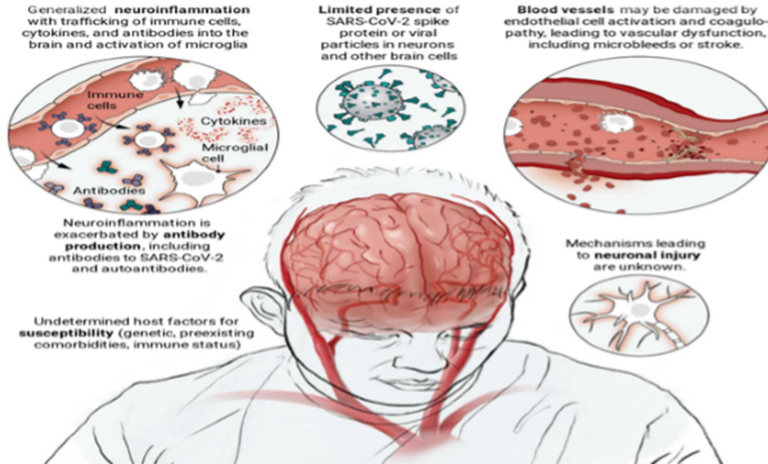
(Source; Africa CDC <https://africacdc.org/news-item/partnership-to-accelerate-covid-19-testing-scaling-up-rapid-antigen-self-testing/>)

NERVOUS SYSTEM CONSEQUENCES OF COVID-19

Although severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is considered a respiratory pathogen, myriad neurologic complications—including confusion, stroke, and neuromuscular disorders—manifest during acute COVID-19. Furthermore, maladies such as impaired concentration, headache, sensory disturbances, depression, and even psychosis may persist for months after infection, as part of a constellation of symptoms now called Long Covid. Even young people with mild initial disease can develop acute COVID-19 and Long Covid neuropsychiatric syndromes. The pathophysiological mechanisms are not well understood, although evidence primarily implicates immune dysfunction, including nonspecific neuroinflammation and antineural autoimmune dysregulation. It is uncertain whether unforeseen neurological consequences may develop years after initial infection.

With millions of individuals affected, nervous system complications pose public health challenges for rehabilitation and recovery and for disruptions in the workforce due to loss of functional capacity. There is an urgent need to understand the pathophysiology of these disorders and develop disease-modifying therapies.

NERVOUS SYSTEM CONSEQUENCES OF COVID-19



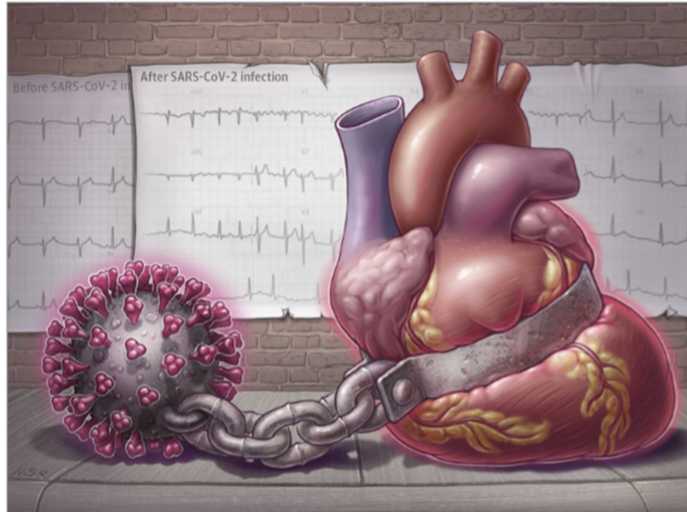
(GRAPHIC: V. ALTOUNIAN/SCIENCE) (SCIENCE ; <https://www.science.org/doi/10.1126/science.abm2052#>)

THE COVID HEART—ONE YEAR AFTER SARS-COV-2 INFECTION, PATIENTS HAVE AN ARRAY OF INCREASED CARDIOVASCULAR RISKS

An analysis of data from nearly 154 000 US veterans with SARS-CoV-2 infection provides a grim preliminary answer to the question: What are COVID-19's long-term cardiovascular outcomes? An analysis of data from nearly 154 000 US veterans with SARS-CoV-2 infection provides a grim preliminary answer to the question: What are COVID-19's long-term cardiovascular outcomes?

A study, published in Nature Medicine by researchers at the Veterans Affairs (VA) St Louis Health Care System, found that in the year after recovering from the illness's acute phase, patients had increased risks of an array of cardiovascular problems, including abnormal heart rhythms, heart muscle inflammation, blood clots, strokes, myocardial infarction, and heart failure. What's more, the heightened risks were evident even among those who weren't hospitalized with acute COVID-19. study, published in Nature Medicine by researchers at the Veterans Affairs (VA) St Louis Health Care System, found that in the year after recovering from the illness's acute phase, patients had increased risks of an array of cardiovascular problems, including abnormal heart rhythms, heart muscle inflammation, blood clots, strokes, myocardial infarction, and heart failure. What's more, the heightened risks were evident even among those who weren't hospitalized with acute COVID-19.

THE COVID HEART—ONE YEAR AFTER SARS-COV-2 INFECTION, PATIENTS HAVE AN ARRAY OF INCREASED CARDIOVASCULAR RISKS



(Source JAMA; <https://jamanetwork.com/journals/jama/fullarticle/2789793>)

**This Report has been prepared by the
COVID-19 FAMSA TECHNICAL WORKING GROUP (CFTWG)**



@official_famsa

For comments visit Covid19twg@famsanet.org

famsanet.org



