

Podcast: Covid-19 in 2023 – What do we know now?

As of March 2023

Hello and good afternoon to this new podcast of the Difäm Health Community. Quite some time has passed since we last covered issues around Covid-19 in our podcast series. In 2022, we rather focussed on vaccination in general because one of the collateral damages of the Covid pandemic was a general loss of confidence in vaccination as a preventive tool. This also affected routine immunizations during pregnancy and childhood in many countries.

In this podcast, we take up the topic of Covid-19 once again. Time has passed - we want to take you on a tour to the latest scientific insights in this infectious disease. Our focus, however, is on aspects, which are relevant for African countries.

My name is Chloe and I am here with my colleague Ute, and we are both members of the Difäm health team.

For many months, from 2020 to 2022, we looked at the numbers of new Covid-19 infections with concern. In 2020, we feared that the air-borne transmission of Covid-19 would create a health disaster on the African continent. However, the African countries did not show the same steep rise of incidence rates as other countries in the northern hemisphere.

Ute, where are we now in terms of data and how reliable are those numbers?

Hello to everyone who is listening today and thanks for your interest in this update on Covid-19.

Chloe, the global numbers on Covid-19 are quite impressive. To date, about 680 million people worldwide became infected and almost 7 million died. However, the numbers for the African continent sketch a far less dramatic picture. According to the African Centre for Disease Control about 12 million people tested positive for Covid-19 on the continent of whom about 260.000 patients died. This is a percentage of about two percent¹.

Let us translate these numbers into prevalence rates based on the population sizes of the continents: the African continent has shown a prevalence of 1% only, compared to Asia with 5%, Europe with 33% and North America with 34%². Why is this so?

There are various explanations for this puzzling phenomenon.

A very recent study found that Covid-19 had a greater impact on economically stronger African countries than on the countries with lower income. This is due to intensive international contacts and more urbanization in richer African countries.

Furthermore, climate had an influence on the numbers of Covid cases and deaths. Humidity, higher temperatures and the stronger solar radiation closer to the equator seem to reduce the transmission of the virus. Finally, it played a role how governments managed the pandemic and enforced infection prevention measures⁴.

Moreover, the African countries have a very young population. Young people are less susceptible to

severe disease and may have undergone a Covid infection without diagnosis. In addition, the availability of Covid tests played a role. The comparatively small number of tests that were available on the continent certainly contributed to the low one percent prevalence: If we do not test, we do not know.

[Are there any new insights concerning the surveillance of Covid-19?](#)

Within the course of the last three years, we saw the rapid evolution of testing capacity across the globe. While in the beginning there were only PCR tests, rapid tests are now the main tool for a first diagnosis of the infection. The increase of PCR testing capacity is of high relevance for the Africa. In the beginning of the pandemic, only 47 laboratories were in the position to do PCR testing; now more than 1.000 labs exist ⁵. However, this number is still low for a whole continent.

[This is good news. Finally, Covid-19 did not only have negative effects.](#)

You are right. Moreover, several African countries with a history of a high Covid burden now practice wastewater surveillance for Covid-19. This technique can detect viruses and pathogens including cholera and the poliovirus. This is based on the fact that infected persons shed the virus through faeces and urine, even when they do not show symptoms. By taking samples of wastewater, authorities can monitor the occurrence and intensity of virus circulation in a population and can even identify the predominant variants. This is much easier and cheaper than testing every individual. During the pandemic, some governments used this method and could predict new waves even before they presented as clinical cases. Several countries across the region also practice wastewater surveillance for monitoring the poliovirus. Apart from South Africa and Ghana, Nigeria, Uganda, Kenya and Malawi also use this technique. Even though the number of laboratories capable of doing PCR testing has increased, low laboratory capacity remains a limiting factor for wastewater surveillance in other countries ⁶.

[Thanks, xxx, for this overview of the evolution of diagnostic and surveillance capacities. What do we know about treatment today? In the beginning, the world focused on oxygen therapy and we as Difäm supported our partners with pulse oximeters and oxygen concentrators. Where are we now in terms of the treatment of Covid patients?](#)

Thanks for this question, XXX. You are right: From the onset of the Covid pandemic, oxygen played a key role in handling Covid cases with a severe course of the disease. Did you know that medical oxygen stands on the list of essential medicines and is one of the few items that cannot be replaced by any other product or drug?

Oxygen continues to play a major role in the treatment of Covid patients as well as other patients suffering from an acute respiratory infection. In order to check for hypoxaemia, which means a low level of oxygen in the blood of less than 90%, we have to measure the oxygen saturation of the blood by using pulse oximeters ⁷.

[Do we now have a better understanding of how many people develop a severe course of disease due to a Covid-19 infection?](#)

Well, with 680 million infections in the last three years, we do have good data in this respect. According to the WHO, 80 % of symptomatic persons infected with Covid-19 develop only mild or moderate disease. 15% of patients suffer from severe Covid infection and have to be supported with oxygen, while another 5% percent develop serious complications such as respiratory failure, septic shock, thromboembolism or multi-organ failure ⁹. The new Omicron variant of Covid-19 is more infectious but leads to milder courses of disease.

If I remember correctly, treatment of mild Covid only involves medication against fever, headache, flu-like symptoms, but no antibiotics. Is that correct?

In principle, this is correct. A person with a mild or moderate Covid infection should stay at home, take lots of fluids and paracetamol if there is a fever or headache. Mild Covid cases do not need antibiotic treatment.

How do we treat patients with a severe course of a Covid infection?

Drug treatment of severe Covid-19 is complex and usually follows the complications that a patient develops. There are antiviral and anti-inflammatory medications that can influence the course of disease. There is now a medication called Paxlovid, which can prevent severe disease in patients who are at high risk due to their age or underlying chronic disease conditions. This antiviral combination therapy has to be given early in the course of infection to inhibit disease progression. If available, Paxlovid is probably quite expensive.

A more readily available medication is Dexamethasone. This corticosteroid helps to regulate the overstimulation of the immune system due to the virus. As far as treatment is concerned, we learn more every day. For this reason, WHO regularly updates their guideline on medications and Covid-19^{9,10}. It is best to review this guideline for more detailed information as well as the national treatment guidelines of everyone's own country.

Thanks for giving us this overview of the current treatment options. I suppose that a patient who suffers from severe disease requires intensive care and many diagnostics.

This is correct. During the Covid pandemic, the number of beds for intensive care in Africa increased significantly but, of course, there is still a need to build more capacity¹⁷.

Let us turn to vaccination as a preventive tool. Do we know how many people have accepted vaccination against Covid-19 in the African countries?

Yes, the WHO Afro collects these numbers. Up to December of last year, about 291 million people in Africa have completed their first round of vaccination against Covid-19. That means that 24.9% have taken the first of usually two shots. The target was 70% and a number of countries have reached this percentage, for example Liberia, some Island states or Rwanda¹¹. Otherwise, the percentage of people protected by a first round of immunization differs a lot between countries.

We also have to point out that the delivery of vaccines to the African countries was very slow throughout the pandemic, which certainly affected the number of vaccinated people especially in the beginning of 2021 when everyone desperately waited for the vaccine.

Absolutely. The inequality of vaccine distribution is still a topic for follow-up. This must not happen again in a future pandemic. Concerning Covid vaccination, progress on the African continent has stagnated since October 2022. However, most countries have targeted the highest risk population groups. Therefore, even if the percentage of 70% has not been reached by all countries, there was a move to more protection of the most vulnerable against serious disease due to Covid¹². In addition, studies have shown that up to 15% of African populations already have antibodies against the disease, which means that they have already undergone an infection¹⁶.

Many people are very reluctant with respect to Covid vaccination. They do not trust the vaccines and fear serious side effects. Do we have new insights on the safety of the vaccines against Covid-19? They also used this new mRNA technology.

By the end of February 2023, more than 13 billion Covid-19 vaccine doses have been administered across the globe ¹⁴. Side effects were reported but were mostly mild and short-lived. Serious problems are rare. To give you an example: In the German state of Bavaria, health authorities have recognized 79 persons of 9.9 million people vaccinated against Covid-19 as suffering from vaccination induced long-term effects ¹³. This is 0.0008% of the vaccinated persons. The patients who show long-term health problems are now called “Post VAC cases”.

This is a very low percentage. In contrast, the percentage of people who have died due to a Covid-19 infection is certainly higher.

Yes, you are right, even though counting Covid-19 deaths is not easy due to the comorbidities that patients with severe Covid infection often suffer from. In March 2023, we had 6,87 million confirmed deaths due to Covid-19 ². We usually also look at excess mortality if we want to get an impression of the number of deaths due to the Covid-19 pandemic. Excess mortality compares the number of deaths during Covid with the number of deaths we would have expected if Covid had not occurred. Excess mortality is a more comprehensive number, which does not only include confirmed Covid deaths but also deaths with a Covid coinfection, as well as those who did not receive medical treatment due to lockdown or people who died from poverty.

The pandemic years have pushed millions of Africans into greater poverty and recovery is not yet in sight ¹⁸. Therefore, the number of excess mortality is two to four times higher than the reported number of confirmed Covid deaths. The number of excess mortality due to the pandemic is estimated between 16 million and 26 million people¹⁵.

Now this is a huge number. Covid-19 has caused quite a lot of collateral damage among others the economic impact on individuals, families and nations due to global Covid policies and the resulting global economic uncertainties. There is another topic that we have not yet addressed: Long Covid.

Long Covid is a very complex topic. These long-term effects of a Covid infection are difficult to diagnose and to treat. We estimate that, globally, 65 million people struggle with debilitating long-term conditions. The most common symptoms of these conditions are fatigue, shortness of breath, and cognitive dysfunctions but also endocrine conditions like diabetes can occur ¹⁹. A new South African study suggests that about half of the Covid patients treated in hospital suffer from Long Covid and you have to add the 20% of patients having recovered at home ²⁰. However, there is a lot of research conducted and we will have to wait for further insights on diagnostic and treatment recommendations. Nonetheless, health workers should be aware that Long Covid might be a cause of a patient's health complaints.

Thanks for the interesting information. Let me summarize the most important points of what we know now about the Covid-19 situation. The Covid pandemic overwhelmed the world. To date, Covid-19 infected 680 million people of whom about 1% confirmedly died from the disease though excess mortality may be much higher. The case fatality on the African continent was about 2% due to weaker health care provision.

The African countries were less hit by the pandemic because of a multitude of reasons linked among others to their economic status, their demography and their ecology. The global fight against the pandemic has led to the fast development of rapid testing and vaccines. On the African continent, the number of laboratories capable of doing PCR testing increased as well as the number of intensive care beds. Vaccination campaigns have had some success but the percentage of people who accepted at least one vaccine shot differs greatly between countries. Most African governments prudently turned towards vaccinating groups with a higher risk to develop severe complications. The treatment of Covid-19 still relies largely on oxygen and drugs against flu-like symptoms. Some anti-

viral and anti-inflammatory medication exists for the treatment of severe Covid cases, but access to these drugs and intensive care treatment is very limited on the continent. The only drug that is readily available is Dexamethasone. We also have to be aware that a patient who suffers from fatigue, shortness of breath or cognitive dysfunction may suffer from Long Covid.

There is one lesson we can certainly learn from the Covid-19 pandemic: We have to continue our efforts for more equality and equity concerning access to international health goods. We also have to enforce capacity development and enable better health infrastructure on the African continent.

Thanks to you all for listening to this podcast. Keep up your good work. Be blessed and stay safe!

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