**John Torpey** 00:04

Welcome to International horizons, a podcast of the Ralph Bunche Institute for International Studies that bring scholarly and diplomatic expertise to bear on our understanding of a wide range of international issues. My name is John Torpey, and I'm director of the Ralph Bunche Institute at the Graduate Center at the City University of New York.

**John Torpey** 00:23

Today we discuss the coronavirus pandemic in Africa with Dr. Stephanie Salyer of the Africa Centers for Disease Control and Prevention. She was part of a team from the Africa CDC that recently published an article in The Lancet on "The First and Second Waves of the Covid-19 Pandemic in Africa". Dr. Salyer is a technical adviser to Africa CDC's Division of Surveillance and Disease Intelligence. She has a doctorate in veterinary medicine and a master's degree in public health from the University of Wisconsin at Madison, focusing her research on zoonotic - that is animal to human -diseases at the animal human interface such as avian influenza. Prior to joining Africa CDC, Dr. Salyer worked for over six years as a veterinary epidemiologist in the American CDC's Center for Global Health. Most recently, Dr. Salyer has been fully engaged in Africa CDC's continental COVID-19 response activities. Thanks so much for taking the time to be with us today Stephanie Salyer.

**Stephanie Jane Fazekas Salyer** 01:36

Thanks so much for having me. It's a great pleasure to be here.

**John Torpey** 01:41

Great. Thanks so much. It's great to have you. So let's start with your article in The Lancet, which got my attention, which is about the - as I said, as the title tells the story - it's about the first and second waves of the coronavirus in Africa. Can you tell us, you know, what you found in that article?

**Stephanie Jane Fazekas Salyer** 02:00

Sure, absolutely. And maybe a little bit before that, if you're okay with it, just to give your listeners a bit of background?

**John Torpey** 02:07

Sure.

**Stephanie Jane Fazekas Salyer** 02:09

Okay. I just wanted to tell you a bit about the data that we used for the analysis, and the team that generates this. So we have a team of about six epidemiology analysts that do event-based surveillance at Africa CDC. So this team monitors media and official sources for COVID-19 epidata, testing variants, vaccine related information. And so we do verify all these sources with both our regional collaborating centers, as well as member states before we put them into our database. But we actually use this data to produce regional awareness reports for our member states and partners on a twice daily basis. So some, something we've been doing since the beginning. And that's what we pulled from to do the analysis for this for this study.

**Stephanie Jane Fazekas Salyer** 03:04

So yeah, so to share some of the key findings, I think, you know, one of the big ones, we we did the analysis from the 14th of February last year, when the first case was reported to the 31st of December. And at that point, there were about 3 million COVID cases and more than 65,000 deaths that were reported from Africa. Just as a quick update, now, we're currently reporting about 4.6 million COVID cases and 125,000 deaths. So this only really accounts for about 3% of the total cases, and 4% of the total deaths that have been reported globally. So really touches on your point about, you know, not really seeing a lot on the African continent compared to what's being reported globally.

**Stephanie Jane Fazekas Salyer** 03:53

But I think one of the second points is that, you know, even though these percentages are low, when you look at it at a sub continental level, when you look at the member state level, there were a number of member states that did report very, you know, incidences that were very similar to what were other countries were reporting, for instance, Cabo Verde, South Africa, Libya, and Morocco.

**Stephanie Jane Fazekas Salyer** 04:18

I think one other piece to mention, which is in the title, that the continent is, you know, experiencing a more severe second wave. Daily infections at the continental level were approximately about 30% higher during the rise of the second wave as compared to the peak of the first to date. Now, I actually looked last week at our last epi-week, and this trend is continuing. About 52 member states, so that's about 95% of the countries on the continent, have experienced a second wave and about 10 have actually experienced a third wave. For those that have experienced a second wave 73% have had a higher weekly incidence during their second wave when you compare it to their first. And all of those that have experienced a third wave have had a higher weekly incidence for that wave when compared to their second.

**Stephanie Jane Fazekas Salyer** 05:19

A couple of reasons why this is, you know, there's early successes. Many African, almost a majority of African countries rapidly responded during their first waves early early on, in implementing stringent public health measures to limit transmission. But we saw that a lot of those measures were reduced and also adherence to those measures were reduced during the time around the second wave, as well as now that there's more circulation of these transmissible, more transmissible and deadly variants on the continent. Of note, currently, there are three variants of concern that are currently circulating, which is the B 117, which originated in the UK, the B1351, which was originally reported from South Africa, and now B1617, which was originally reported in India. So there's 24 countries that are reporting the B117. 24 countries that are reporting the B1351. And now there's seven countries that are reporting the B1617.

**Stephanie Jane Fazekas Salyer** 06:33

And I don't know if you want a little bit on the the PHSM. But we have a recent report that came out from the PERC Partnership, which is the Partnership for Evidence-based COVID Response, which does give further evidence that there's decreased public support for and adherence to measures that are restricting social gatherings and mobility. So lots of reasons for why we're seeing this increase in severity and deception rates.

**John Torpey** 07:02

I see. Thank you. I mean, you've raised a lot of different issues. One of them has to do with the variation across Africa. I mean, Africa is a big and diverse place with lots of different kinds of capacities and histories. And you're saying there's some, you know, variation across those countries, which is hardly surprising. You know, I wonder, and one of the reasons you said there was relative success in some of those countries had to do with early and strict kind of responses by the governments to what happened. Can you sort of generalize that, that point to say that that's kind of one of the major reasons that countries that do well, actually do so?

**John Torpey** 07:50

I mean, I'm trying to figure out for myself, you know, which countries really have done better? And, and often, it seems to me, it's very difficult to say, you know, and of course, it changes over time. So it's very difficult to say what measures really have worked other I think, than getting people to wear masks and keep social distance. Those two things seem to be more or less universally effective. But otherwise, lockdown school closures, all these things, you know, vary a lot across different places, and, you know, vary in terms of their effectiveness and success. So I wonder if you could comment on how that's looking in Africa?

**John Torpey** 08:33

So with regard to which measures are more effective over others, yeah, I think that analysis is still left to be said. There's so much going on in each of these countries, and I think you really need to have really accurate data to really say, you know, are you capturing all the cases, to be able to say this measure is, is effectively doing this or this or this. But I would say, even to the point that I made about the decrease public support for those those measures restricting social gathering and mobility, comparatively, since the there was an opinion poll that was done in August, and an opinion poll that was done in February, there's even a slight decrease in things like washing hands and physical distancing. And they're of the 19 countries that did this opinion poll, 10 of them actually showed a decrease in wearing face masks. So I think even some of those personal measures are also decreasing too, which are the ones I think most most of us think are the most effective. So hopefully that helps to that point.

**Stephanie Jane Fazekas Salyer** 09:55

But yeah, I think you know, there's still that thought, too, that the majority of the continent is much younger than other continents. So you could presume that that could be one of the reasons why less severe cases have been seen too, but I think it's interesting to note that the continental case fatality ratio has actually remained above 2%, for the duration of the pandemic. And this has actually steadily increased from 2.4 to 2.7 since December of 2020. And currently, about 21 member states are reporting higher case fatality ratios than the global average of 2.1. And this could be real, right, these elevated case fatality ratios could represent that there is a higher mortality, and than what they're seeing globally, but it could also represent that there's a need for more testing capacity to really capture all the cases. So it could be an artifact of that.

**John Torpey** 11:01

Maybe you could explain just quickly for those who may not be as on top of some of these concepts exactly what the case fatality ratio is, or case fatality rate. And, you know, how it compares how Africa compares in this regard to what's going on elsewhere. I mean, India, for at the moment is getting, of course, all the attention. It's a huge country, many people getting sick, many people are dying. But how does that compare to Africa, which is, you know, the fastest growing continent on the planet, right, in population terms.

**Stephanie Jane Fazekas Salyer** 11:39

So case fatality ratio, it's basically the proportion of, of deaths to cases. So you kind of estimate of the proportion of cases, how many could could die or are dying and what's what's currently being seen. And so I know that there was a paper and I can't think of it now, but there was a paper that originally came out from China early early on the estimated that the probably the true case fatality ratio, or mortality rate was less than 1%. And I need to go dig that up. But I mean, that kind of gives you a bit of a proxy that, you know, there are a lot of asymptomatic infections that are not being captured in that in that ratio. And so it kind of gives you a bit of a proxy that if that true mortality rate, or case fatality rate is less than a percent, then you know, what is this all -- what are the what is this number over to attributable to?

**Stephanie Jane Fazekas Salyer** 12:38

And so a lot of times we use this as a proxy to say, okay, are there more deaths that are being reported over a period of time, but you can also use it as a way to look at your testing and if you're testing capacity is actually accurate. But there are also other measures that you look at for testing as well, which could be the percent positivity, as well as test per case ratio, and WHO came up with an adequate range. So the test per case ratio is the number of tests that need to be conducted, per case, per cases diagnostically confirmed, to be able to adequately capture all of the of the cases that you're assuming are circulating. And so the range that they picked was between 10 and 30.

**John Torpey** 13:34

And so if we look currently, at what's being reported on the continent, at the continental level, the test per case ratio is at about 9.7, which is less than that baseline of 10. So currently at a continental level, we're not doing enough testing as we should be. And if you look at the member state level, about 20 countries, about a third of the continent is reporting a cumulative test per case ratio less than 10. So really indicating that there is poor testing capacity. And I think you have a question, too, so I want to get to that one.

**John Torpey** 14:26

Well, I mean, I'm forgetting exactly what my second question was, I'm afraid, so maybe we'll just have to move on. But, you know, another question I wanted to ask to some of your comments raised has to do with, you know, public health and the public health risk response and the capacity for response. I mean, it wasn't so long ago when I remember reading a sort of famous book by a guy named Paul Kennedy, in which he described Africa as the third world's third world. In other words, you the deepest, poorest part of the world, essentially. But that's changed a lot in in the intervening years. I mean, I think that book came out a better part of 30 years ago now. And things have changed. And, and, of course, there's variation. So I wonder, you know, how you would characterize the public health capacity to respond to a crisis like this, and you know, how much it's helped to reduce the mortality and to, you know, keep people from getting sick?

**Stephanie Jane Fazekas Salyer** 15:33

Sure, so I think your point is valid. I mean, you know, you can't compare a member state to member state. Everybody's so different. But I think one thing that was really striking, was looking at what was happening in South Africa during their second wave. And, you know, they were not able to maintain adequate care in hospitals and hospitals were overwhelmed. And in your, then as that kind of transition to many of the member states around them, were starting to then experience their second waves, and likely due to the variant that was that was first reported there spilling over into these other countries. And you just kept hearing reports of lack of oxygen, medical oxygen, lack of beds, hospitals just overwhelmed.

**Stephanie Jane Fazekas Salyer** 16:27

And I think that's one of the difficulties that we've had with kind of seeing what the situation and trying to get that early warning and awareness of what's happening in member states. We're using a lot of indicators, like cases, incidence, death rates, but one of the things that we really haven't been able to adequately assess, is what's going on in the hospitals. And there's just not a good indicator that's being captured and reported on a routine basis to be able to see that.

**Stephanie Jane Fazekas Salyer** 17:01

And currently, right now we're developing some alert level guidance that Member States could hopefully use, and actually, this is one of the things that's really impressive about South Africa is they do have an alert system and internal alert system. And they monitor several indicators. And some of them, you know, are incidents and testing capacity, but they're also able to kind of monitor these hospital bed capacity. And they use that in a way to see kind of like, you know, if the cases are rising, you know, there could be an issue, alright, let's start looking at the public health and social measures we need to put in place to to decrease transmission and to try to, you know, dampen the wave.

**Stephanie Jane Fazekas Salyer** 17:47

And I know that a lot of countries don't have that capacity in place, they don't have systems like that in place. And so this is something that we're trying to encourage other countries get kind of these early warning and early alert systems in place. But you know, it's complicated. Not every country has that. And so, you know, we're trying our best to really understand what's happening with the member states, and to be able to help and respond and work with partners, to make sure that the supplies and everything are there. But there's also sometimes that lack of visibility, and not really knowing. So I think that's one of the things that could be definitely improved to help the overall capacity and the response to improve things as well.

**John Torpey** 18:35

Right. So I think the question that we both seem to have forgotten had to do with, you know, putting the African situation in the context of or in comparison with what's going on, for example, in India, but also in, for example, Latin America, where things are going badly. You know, it may be that Africa has caught up, or many of the countries are caught up in a second, and perhaps even a third wave. But it's I think, you know, rather considerably, you know, lower in terms of per capita mortality and that sort of thing. So, if you could, you know, sort of put Africa in the context of the larger world picture, I think that would be helpful.

**John Torpey** 19:18

Sure. So I think some of the points I brought up with regard to testing capacity, you know, is really inhibiting our ability to understand what the true burden is within the member states. So that's something that Africa CDC really been trying to encourage member states to do more rapid antigen testing to identify all of the cases. Because one of the things that the paper actually pointed out is during these peak periods where the incidence is really high, the testing capacity was very low. It was not able to keep up.

**Stephanie Jane Fazekas Salyer** 19:56

And so, as the subsequent waves are coming, there's going to need to be a way to keep an appropriate testing strategy to understand what's what's happening. So, if they're not able... if countries are not able to keep up with their existing PCR capacity, what are other testing or other testing strategies they could use to to help them identify cases? I think that's one. Because you need to identify cases, to be able to say, okay, you need to isolate to prevent further transmission. So that's, that's part of it.

**Stephanie Jane Fazekas Salyer** 20:34

But I think another thing that was really interesting from these opinion poll results were that a number of people said that they just didn't go and access health care anymore. So they weren't going in and accessing the health system, even if they were sick, because they were afraid they could potentially get COVID from the health facilities. So there's that fear that people are staying home, even when they have severe illness, and they could be dying at home. And so I think that's something that we're just not being able to pick up.

**Stephanie Jane Fazekas Salyer** 21:11

So excess mortality surveillance could potentially shed some light on that. And there's a couple of countries that are doing that. South Africa is currently doing an excess mortality survey as well as Uganda. I think another thing with regard to the reporting piece is doing serial prevalence surveys. So, there's about 10 countries that are currently or have done serial prevalence surveys. So there's a results that are coming out from that. And I think that would be another way to also estimate what maybe the true burden is on the continent, because I just don't think that the numbers we're seeing now really represent what's happening.

**John Torpey** 21:53

So I guess this brings us in some, in some sense to the matter of the vaccines and the vaccine rollout. I mean, there's been some commentary in the in the press that I've seen that suggests that, you know, it hasn't been going so well, there's a certain amount of vaccine hesitancy, the blood clotting episodes with AstraZeneca and Johnson and Johnson, you know, scared people there as it did scare people here. And, the certain amount of sort of resistance to science, I guess, and sort of failure perhaps to educate people as effectively as might have been done. So I wonder if you could comment on the vaccine rollout, which many of these things could have been said about the United States, and indeed of Europe. So, how does it look in Africa?

**John Torpey** 22:47

Yeah, so I think, you know, all the points you raised are also, you know, concerns on the continent, which is why the risk communication and vaccine related messaging is so important. And there have been a couple of studies that have been done across the continent. So there was one that Africa CDC did on vaccine perceptions, as well as the PERC opinion polls, also did also ask about vaccine perceptions and vaccine acceptance. And the results from those actually showed fairly high acceptance rates. So about 80% for the Africa CDC survey, and about 67% for the PERC opinion polls.

**Stephanie Jane Fazekas Salyer** 23:29

So maybe there's high acceptance, but absolutely there was a lot of concern that surrounded the adverse events that were being reported from some of the vaccines. And that's something that Africa continues to monitor. And we're definitely closely monitoring the situation that was happening in Europe.

**Stephanie Jane Fazekas Salyer** 23:51

We we do also encourage, because of this, we're encouraging that member states, you know, really increase their monitoring and reporting of adverse events following immunization. Because as this is rolling out, there may be new information that we need to take note of to change recommendations. But to date, Africa CDC, has released a couple of statements regarding the use of the AstraZeneca and the J&J vaccines, which can be found on on our website. And currently, we find that the benefits really do outweigh the risks for these these vaccines.

**Stephanie Jane Fazekas Salyer** 24:32

I think probably one of the biggest challenges and I'm sure we'll go into this a bit more in detail, but one of the biggest challenges that the continent is currently facing is the ability to procure the vaccine on the continent and the ability to meet the continental coverage goals, right? So those are set to try to meet 35% coverage by the end of 2021. And about 60% coverage by the end of 2022. And that's why Africa CDC and the AU [African Union] are really trying to help increase the vaccines that are made available to Member States through a couple different mechanisms. There's one that's called AVAT, which is the African Vaccine Acquisition Task team. And I'm sure you're aware of the Covax mechanism that WHO is supporting.

**John Torpey** 25:23

Yeah, indeed, this was going to be my next question: how much vaccine is available? How much can people get, you know, resistant to it or not? How much is available? And and, you mentioned COVAX, and I wasn't familiar with the AVAT initiative. But there's a lot of questions about vaccine diplomacy that the Chinese and the Russians have fairly effective vaccines, and they're, you know, distributing them to places that they want to favor politically. And you can certainly imagine China, given its extensive kind of involvement in Africa these days that they might be involved in this game, as well. So I wonder if you could talk about how much vaccine is there? Where is it coming from? Would, in your view, would the sort of lifting the waiving of a patent make a difference in terms of accessibility of vaccines in Africa and elsewhere?

**John Torpey** 26:25

Sure. So currently, and this was taken on the first of May, so about approximately 24 point million doses have been administered. And that only corresponds to a coverage rate of like about 1.5% at the continental level. And if you take into consideration the need to take two doses, that's actually less than, and that's about 0.4% of the population that has received full vaccine coverage. So not a lot has been administered, and there's definitely a need to ramp up.

**Stephanie Jane Fazekas Salyer** 27:06

Currently, the majority of the vaccine has been distributed across the continent has been AstraZeneca. And it's been through the COVAX mechanism. But currently the outbreak in India and the manufacturing issues have really limited and the ability to get more of that vaccine to the continent. So this is one of the reasons why Africa CDC and the AU were looking at potentially attaining supplies of the J&J vaccine for member states to relieve this current demand and try to help meet the demand on the continent.

**Stephanie Jane Fazekas Salyer** 27:41

Some countries, yes, are using this Sputnik V vaccine, about six countries. And with regard to Sinopharm, about 20 countries are currently using that. And there's a second one Sinovac, which two countries are using. And all of this information is on the Africa CDC dashboard that we have. So I welcome your folks to check that out and learn more about it as it changes. And I don't know how this is going to evolve, I think this is all going to be something that we'll be watching intently, and trying to really ensure that we're meeting the needs across the continent.

**Stephanie Jane Fazekas Salyer** 28:23

I think one other thing to maybe mention, and you mentioned that the whole thing about the relaxation of the patents. So again, to try to meet these goals, we can't just do it by supplying vaccine from outside of the continent. There really is a need to build up vaccine manufacturing on the continent as well. So with regard to that vaccine waiver, the Africa CDC and the AU are very supportive of that. And the Africa CDC are also looking at ways of increasing manufacturing on the continent. And this was noted in a recent Nature commentary I don't know if you happen to see, but but last month, a number of African leaders came together and pledged to really increase the share of vaccines that are manufactured on the African continent, from 1% to 60% by 2040. I mean, this really includes the need to build factories and increase the research and development capacity across the continent. And so something like a waiver for patents would definitely help with with that need.

**John Torpey** 29:30

Well, I mean, this is obviously an important issue for Africa, but it's an important issue for the world as a whole. That is to say, you know, many people have made the point that until the whole world is vaccinated, this isn't really going to be over. Now, the whole world is never going to get vaccinated for a variety of reasons. But one of the most obvious reasons in the African case is, you know, ability to pay the fact that the richer countries of the world sort of got their hands on these on these vaccines early on and made them available to me, and other Americans and the people in their own countries.

**John Torpey** 30:11

But, you know, given the interconnectedness of the world today, which is, of course, in a way, what made this a pandemic in the first place, there has to be a plan to essentially get everybody vaccinated, everybody who is at all willing has to get vaccinated if this is going to become simply an endemic kind of problem, rather than the epidemic and pandemic that it is now. So, how do you see that developing? I mean, I know this kind of goes beyond your your remit of Africa itself. But, you know, it's obviously an issue that you must have a perspective on from your perch in Addis Ababa.

**Stephanie Jane Fazekas Salyer** 30:56

Sure. And also, I think, you know, US CDC actually released some new guidance with regard to, you know, masking for fully vaccinated folks. And I think that is a luxury that the US is currently able to experience because of the coverage rates that many other countries or regions have or are not able to. So, I think, you know, we'll just try our best to make sure that we advocate for this, but I think one of the things that many African leaders note is, is a need to have the ability to take care of the continent, and really have the resources available to do that. So that this kind of situation is not faced again in future. And I think that's right now, as we're looking at additional variants being identified that could potentially escape the existing vaccines that we have.

**Stephanie Jane Fazekas Salyer** 32:00

Right now, the recommendations that are really being made is that we do need to continue monitoring for COVID. We need to improve our testing capacity. We need to renew member states efforts and strengthening these public health and social measures and getting folks across the continent to really adhere to those, especially while these vaccine campaigns are trying to make their way through and potentially facing a number of problems. But these are all going to be important measures that we know are effective, until we can get/reach a majority of coverage to try to prevent future variants from from emerging. So I think that's kind of the best thing that we can do at the moment until additional capacity is brought onto the continent, or additional vaccines are available.

**John Torpey** 33:02

Right. So it's all about global public health, I guess, in a certain way. That leads me to a question, which is that, until this all happened starting a little more than a year ago, I was not aware that there was an organization on the African continent called the Africa CDC. And I'm assuming that it's not coincidental that it has the name that it has, and that somehow had something to do with American involvement. Now, I could be wrong about that.

**John Torpey** 33:34

But I also learned in the course of all this, that the CDC in the United States, unlike most government, major government bureaucracies is not located in Washington, it's located in Atlanta. Why is it located in Atlanta? Because when it was founded in 1946, it was at the at the epicenter of the malaria problem in the United States. And it was seen as more sensible to have it located there. So, of course, nobody in the United States remembers that we had a malaria problem in, you know, my mother's lifetime, and nearly in my own, for that matter.

**John Torpey** 34:11

But in any case, the real point is that, you know, it seems that there are CDCs in other parts of the world as well. And I'm sort of curious if you know, and maybe this is not a question I should be asking you really, but, whether... like how that happened, because it clearly seems to have been an initiative that was governed by the idea that public health needs to be a kind of global phenomenon, something that we do in a coordinated fashion, and that is not going to work otherwise as the current situation makes clear.

**Stephanie Jane Fazekas Salyer** 34:51

Yeah. So, you know, it's funny, a lot of people ask about the Africa CDC, and they're like, "Oh, is this similar to the US CDC, and is this affiliated with US CDC?" And I compare it to the European CDC, which is also another regional body, which is a public health agency that was put in place by European member states. And that's the same thing that's happened on the continent of Africa. Africa CDC is a technical agency of the African Union that was put in place by the the African member states. And, you know, really was put in place to help support national public health institutes, which is another word for a CDC. So, yeah, so like a ministry of health or a national public health institute, that's kind of the primary audience that Africa CDC really tries to help support and coordinating public health efforts and responding to public health needs across the continent. If that hopefully helps answer your question.

**John Torpey** 36:01

Yes, that's exactly what I had in mind about, you know, the CDC question. It's an interesting step towards trying to strengthen regional public health capacities, but also to reflect to kind of global international coordination that really needs to take place.

**John Torpey** 36:20

But in any case, thank you so much. This has been very illuminating and very interesting. And thanks for giving us a an insight into what's going on in Africa. I want to thank Stephanie Salyer for sharing her insights about the course of the coronavirus pandemic in Africa.

**John Torpey** 36:38

Remember to subscribe and rate International Horizons on SoundCloud, Spotify and Apple Podcasts. I want to thank Hristo Voynov for his technical assistance and to acknowledge Duncan Mackay for sharing his song "International Horizons" as the theme music for the show. This is John Torpey, saying thanks for joining us and we look forward to having you with us for the next episode of International Horizons. Thanks so much, Stephanie Salyer.