SPECIAL REPORT

People line up to get on the Air France flight to Paris at OR Tambo's airport in Johannesburg, South Africa, Nov. 26, 2021. A slew of nations moved to stop air travel from southern Africa on Friday in reaction to news of a new, potentially more transmissible COVID-19 variant that has been detected in South Africa. Scientists say it is a concern because of its high number of mutations and rapid spread among young people in Gauteng, the country's most populous province. (AP)

Scientists scramble to understand mutations

New COVID variant Omicron … What is it?

LONDON, Nov 27, (AP): **What is this new COVID-19 variant?**

South African scientists identified a new version of the coronavirus this week that they say is behind a recent spike in COVID-19 infections in Gauteng, the country's most populous province. It's unclear where the new variant first emerged, but scientists in South Africa first alerted the World Health Organization and it has now been seen in travelers to Belgium, Botswana, Hong Kong and Israel.

Health Minister Joe Phaahla said the variant was linked to an "exponential rise" of cases in the last few days, although experts are still trying to determine if the new variant is actually responsible.

From just over 200 new confirmed cases per day in recent weeks, South Africa saw the number of new daily cases rocket to 2,465 on Thursday. Struggling to explain the sudden rise in cases, scientists studied virus samples from the outbreak and discovered the new variant.

In a statement on Friday, the WHO designated it as a "variant of concern," naming it "omicron" after a letter in the Greek alphabet.

After convening a group of experts to assess the data, the UN health agency said that "preliminary evidence suggests an increased risk of reinfection with this variant," as compared to other variants.

"The number of cases of this variant appears to be increasing in almost all provinces in South Africa," the WHO said.

Why are scientists worried about this new variant?

It appears to have a high number of mutations — about 30 — in the coronavirus' spike protein, which could affect how easily it spreads to people.

Sharon Peacock, who has led genetic sequencing of COVID-19 in Britain at the University of Cambridge, said the data so far suggest the new variant has mutations "consistent with enhanced transmissibility," but said that "the significance of many of the mutations is still not known."

Lawrence Young, a virologist at the University of Warwick, described omicron as "the most heavily mutated version of the virus we have seen," including potentially worrying changes never before seen all in the same virus.

Dr Anthony Fauci, the US' top infectious diseases doctor, said American officials had arranged a call with their South African counterparts later on Friday to find out more details and said there was no indication the variant had yet arrived in the US.

What's known and not known about the variant?

Scientists know that omicron is genetically distinct from previous variants including the beta and delta variants, but do not know if these genetic changes make it any more transmissible or dangerous. So far, there is no indication the variant causes more severe disease.

It will likely take weeks to sort out if omicron is more infectious and if vaccines are still effective against it.

Peter Openshaw, a professor of experimental medicine at Imperial College London said it was "extremely unlikely" that current vaccines wouldn't work, noting they are effective against numerous other variants.

Even though some of the genetic changes in omicron appear worrying, it's still unclear if they will pose a public health threat. Some previous variants, like the beta variant, initially alarmed scientists but didn't end up spreading very far.

"We don't know if this new variant could get a toehold in regions where delta is," said Peacock of the University of Cambridge. "The jury is out on how well this variant will do where there are other variants circulating." To date, delta is by far the most predominant form of COVID-19, accounting for more than 99% of sequences submitted to the world's biggest public database.

How did this new variant arise?

The coronavirus mutates as it spreads and many new variants, including those with worrying genetic changes, often just die out. Scientists monitor COVID-19 sequences for mutations that could make the disease more transmissible or deadly, but they cannot determine that simply by looking at the virus.

Peacock said the variant "may have evolved in someone who was infected but could then not clear the virus, giving the virus the chance to genetically evolve," in a scenario similar to how experts think the alpha variant — which was first identified in England — also emerged, by mutating in an immune-compromised person.

Are the travel restrictions being imposed by some countries justified?

Maybe. As of noon Friday, travelers arriving in the UK from South Africa, Namibia, Botswana, Lesotho, Eswatini and Zimbabwe will have to self-isolate for 10 days. European Union nations also moved quickly on Friday to ban air travel from southern Africa, and the US also said it would ban travel from South Africa and seven other African nations by non-US citizens beginning Monday.

Given the recent rapid rise in COVID-19 in South Africa, restricting travel from the region is "prudent" and would buy authorities more time, said Neil Ferguson, an infectious diseases expert at Imperial College London.

Risks largely unknown

Will flight restrictions help?

A new coronavirus variant identified in southern Africa is leading to a new round of travel restrictions just as many had finally begun to ease.

The risks of the variant, called omicron, are largely unknown. But the World Health Organization has called it a "variant of concern" and governments around the world are not waiting for scientists to better understand the variant to impose flight bans and other travel restrictions.

The U.S. said Friday it will ban travel from South Africa and seven other African nations by non-US citizens beginning Monday. European Union nations agreed earlier in the day to impose a ban on travel from southern Africa to counter the variant's spread. The U.K., Canada and other countries have imposed similar restrictions.

The moves have renewed a debate over whether flight bans and other travel restrictions work to prevent the spread of new variants. Some say at best the restrictions can buy time for new public health measures to be put in place. At worst, they do little to stop the spread and give a false sense of security.

The Africa Centres for Disease Control and Prevention said it strongly discouraged imposing travel bans on people coming from countries where the variant was reported.

Do travel restrictions slow the spread of the virus?

They might buy countries more time to speed up vaccination and introduce other measures, like masking and social distancing, but they are highly unlikely to prevent the entry of new variants, said Mark Woolhouse, a professor of infectious diseases at the University of Edinburgh.

"Travel restrictions can delay but not prevent the spread of a highly transmissible variant," he said.

Johns Hopkins University infectious disease specialist Dr. Amesh Adalja says the travel restrictions only give the public a false sense of security and should stop being the "knee-jerk" reaction by public officials. Adalja noted imposing restrictions makes politicians "look as if they're doing something" but doesn't make sense when countries now have countermeasures such as rapid tests and vaccines.

Meanwhile, Sweden's chief epidemiologist, Anders Tegnell told a local news agency said he does not believe that a travel ban would have any major effect, other than for countries with direct flights to the affected areas.

"It is basically impossible to keep track of all travel flows," Tegnell told the Expressen newspaper.

Could it be different this time?

Jeffrey Barrett, director of COVID-19 Genetics at the Wellcome Sanger Institute, thought that the early detection of the new variant could mean restrictions taken now would have a bigger impact than when the delta variant first emerged.

"The surveillance is so good in South Africa and other nearby countries that they found this (new variant), understood it was a problem and told the world very fast about it," he said. "We may be at an earlier point with this new variant so there may still be time to do something about it."

However, Barrett said harsh restrictions would be counter-productive and that the South African officials should not be punished for alerting the world to the new variant. "They've done the world a service and we must help them, not penalize them for this."

What does the science say?

Sharon Peacock, who has led the genetic sequencing in Britain at the University of Cambridge, said any decisions to restrict travel were political decisions, not scientific ones. She emphasized that there was still great uncertainty about the new variant, including whether it is actually more infectious or deadly. Although some of the mutations detected appeared worrying, she said there is still no proof that the new variant is any more lethal or transmissible than previous versions.

"It's possible to keep infection out, but you would need very, very severe restrictions and only some countries would be willing to do this," she said.

"Buying time is important and worthwhile, but this is a decision for policymakers," she said. "At the moment, we won't have any definitive scientific answers for a few weeks."

What about economic impacts?

If there's anything the global economy didn't need, it's more uncertainty.

A new highly transmissible coronavirus poses an economic as well as a health risk, threatening to disrupt the global economic recovery and worsen supply chain bottlenecks that are already pushing prices higher. Markets plummeted around the world over worries about the variant - and reaction from political leaders.

"The most worrying thing about the new strain at the moment is how little we know about it,'' said Craig Erlam, senior market analyst for the currency trading firm OANDA. (AP)

editor's choice