



COVID-19 Webinar Series :

OMICRON SARS-CoV-2 Variant: Should we be worried?

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Introduction

- ▶ All viruses, including SARS-CoV-2, the virus that causes COVID-19, change over time.
- ▶ Most changes have little to no impact on the virus' properties.
- ▶ However, some changes may affect the virus's properties, such as how easily it spreads, the associated disease severity, or the performance of vaccines, therapeutic medicines, diagnostic tools, or other public health and social measures.
 - ▶ **Mutation** describes the process through which the SARS-Cov-2 virus *changes*.
 - ▶ **Variants** describes the version of the virus that has changed, through mutation, from the original virus.
 - ▶ **Strains** is used in the same way as the word variants



Introduction

- ▶ Rapidly rising numbers
- ▶ France closed nightclubs for four weeks and heighten mask-wearing for primary school children due to a fifth wave of Covid-19
- ▶ WHO, in collaboration with partners, expert networks, national authorities, institutions and researchers have been monitoring and assessing the evolution of SARS-CoV-2 since January 2020.
- ▶ During late 2020, the emergence of variants that posed an increased risk to global public health prompted the characterisation of specific Variants of Interest (VOIs) and Variants of Concern (VOCs), in order to prioritise global monitoring and research, and ultimately to inform the ongoing response to the COVID-19 pandemic.

A decorative graphic on the left side of the slide. It features a dark grey arrow pointing to the right at the top. Below it, several thin, curved lines in shades of blue and grey sweep across the page, creating a dynamic, abstract background element.

Variants of Concern (VOC)

Working definition:

- ▶ A SARS-CoV-2 variant that meets the definition of a VOI (see below) and, through a comparative assessment, has been demonstrated to be associated with one or more of the following changes at a degree of global public health significance:
 - ▶ Increase in transmissibility or detrimental change in COVID-19 epidemiology; OR
 - ▶ Increase in virulence or change in clinical disease presentation; OR
 - ▶ Decrease in effectiveness of public health and social measures or available diagnostics, vaccines, therapeutics.

Currently designated Variants of Concern (VOCs)⁺:

WHO label	Pango lineage*	GISAID clade	Nextstrain clade	Additional amino acid changes monitored ^o	Earliest documented samples	Date of designation
Alpha	B.1.1.7	GRY	20I (V1)	+S:484K +S:452R	United Kingdom, Sep-2020	18-Dec-2020
Beta	B.1.351	GH/501Y.V2	20H (V2)	+S:L18F	South Africa, May-2020	18-Dec-2020
Gamma	P.1	GR/501Y.V3	20J (V3)	+S:681H	Brazil, Nov-2020	11-Jan-2021
Delta	B.1.617.2	G/478K.V1	21A, 21I, 21J	+S:417N +S:484K	India, Oct-2020	VOI: 4-Apr-2021 VOC: 11-May-2021
Omicron*	B.1.1.529	GR/484A	21K	-	Multiple countries, Nov-2021	VUM: 24-Nov-2021 VOC: 26-Nov-2021

Variants of Interest (VOI)

Working definition

- ▶ A SARS-CoV-2 variant :
 - ▶ with genetic changes that are predicted or known to affect virus characteristics such as transmissibility, disease severity, immune escape, diagnostic or therapeutic escape; AND
 - ▶ Identified to cause significant community transmission or multiple COVID-19 clusters, in multiple countries with increasing relative prevalence alongside increasing number of cases over time, or other apparent epidemiological impacts to suggest an emerging risk to global public health.

Currently designated Variants of Interest (VOIs):

WHO label	Pango lineage*	GISAID clade	Nextstrain clade	Earliest documented samples	Date of designation
Lambda	C.37	GR/452Q.V1	21G	Peru, Dec-2020	14-Jun-2021
Mu	B.1.621	GH	21H	Colombia, Jan-2021	30-Aug-2021



Omicron: What Is Known — and Still Unknown

- ▶ First identified in Botswana and South Africa
- ▶ Cases have been identified in over 50 countries so far, including USA, Britain, Italy, Belgium and the Netherlands.
- ▶ On Monday, First death case in UK
 - ▶ “Omicron, 40% of cases, Tomorrow, 50% + of cases, a milder version of the virus, rapidly spreading” – UK PM - “So the best thing we can do is all get our boosters.”
 - ▶ The UK recorded 54,661 new coronavirus cases on Monday, as well as 38 deaths within 28 days of a positive test. There are 4,713 confirmed cases of the Omicron variant,



Omicron: What Is Known — and Still Unknown

- ▶ As well as the expansion of boosters, new Plan B measures have been introduced in England to slow the spread of Omicron:
- ▶ People are being advised to work from home if they can, bringing England into line with Scotland, Wales and Northern Ireland
- ▶ Rules on face masks have already been tightened and they are now mandatory in most indoor public places, including theatres and cinemas
- ▶ From Wednesday, subject to parliamentary approval, Covid passes will be required to get into nightclubs and other large venues



Omicron: What Is Known — and Still Unknown

- ▶ There are early signs that Omicron may cause only mild illness.
 - ▶ But that observation was based mainly on South Africa's cases among young people, who are less likely overall to become severely ill from COVID.
- ▶ According to Dr. Angelique Coetzee, who chairs the South African Medical Association:
 - ▶ SA hospitals were not overwhelmed by patients infected with the new variant,
 - ▶ and most of those hospitalized were not fully immunized.
 - ▶ Moreover, most patients she had seen did not lose their sense of taste and smell, and had only a slight cough.



Omicron: What Is Known — and Still Unknown

- There are early signs that Omicron may cause only mild illness.
 - But that observation was based mainly on South Africa's cases among young people, who are less likely overall to become severely ill from COVID.
- **Regeneron** says its COVID antibody treatment might be less effective against Omicron, - so this monoclonal antibody drug may need to be updated if the new variant spreads aggressively.
- It may be a while before experts know whether Omicron is more pathogenic - COVID hospitalizations lag new infections by two weeks or more.
- There's another reason to remain calm: Vaccine makers have expressed confidence they can tweak existing formulations to make the shots more effective against new variants.

Uganda confirms 7 cases of Omicron COVID-19 variant

- Dec. 7 -- Uganda reported 7 cases of Omicron.
- Ruth Aceng, - the 7 people traveling into the country had tested positive - five of them came from Nigeria and two from South Africa; cases have been isolated and are being monitored.
 - "They are not severely ill. So there is nothing to worry about. They have been isolated," the minister said.
 - Public to remain calm and continue embracing vaccination.
- The minister last week said UG would keep its borders open despite the concerns over Omicron – that the country has adequate measures in place at the points of entry to detect importation of any variant.



WHO provides 3,360 Omicron testing kits to Uganda

- ▶ 09 December 2021 - WHO provided the UVRI with 3,360 test kits for the genotyping of variants of concern.
- ▶ "These PCR screening assay kits procured by WHO is a boost to the county's existing capacity to identify the predominant Delta variant and indicate the presence of Omicron, the new VOC.
- ▶ "Highly operational, these kits offer a triple benefit in preventing and limiting the spread of Omicron and other variants of concern. They will allow rapid identification of the highly transmissible delta variant, screen for Omicron, and help in prioritizing specimens for genomic sequencing."- said Dr Yonas Tegegn Woldemariam, WHO Representative in Uganda.

South Africa says no signal of increased Omicron severity yet

- ▶ South African scientists see no sign that the Omicron coronavirus variant is causing more severe illness, and plans to roll out vaccine boosters with daily infections approaching an all-time high.
- ▶ Preliminary data - increasing rate of hospitalization, purely because of the numbers rather than as a result of any severity of the variant itself.
- ▶ Boosters of Pfizer-BioNTech's vaccine would be available to people six months after they had received their second dose, with the first people becoming eligible late this month.
- ▶ Johnson & Johnson (JNJ.N) boosters, already available to health workers in a research study, would be rolled out to others soon, he said.

Omicron in Africa

- The Omicron variant is reaching more countries in Africa and weekly COVID-19 cases in the continent surged by 93%.
- Africa recorded more than 107 000 cases in the week ending on 5 Dec, up from around 55 000. Southern Africa recorded the highest increase with a 140% hike mainly driven by an uptick in South Africa.
- Research is being intensified to determine whether Omicron is fuelling the surge in cases seen in Africa.
- Emerging data from South Africa indicates that Omicron may cause less severe illness.
- Africa currently accounts for 46% of the nearly 1000 Omicron cases; 10 African countries have reported cases.



WHO Recommendations

► **Transmissibility:**

- It is not yet clear whether Omicron is more transmissible (e.g., more easily spread from person to person) compared to other variants, including Delta.

► **Severity of disease:**

- It is not yet clear whether infection with Omicron causes more severe disease compared to infections with other variants, including Delta.
- There are increasing rates of hospitalization in South Africa, but this may be due to increasing overall numbers of people becoming infected, rather than a result of specific infection with Omicron.
- There is currently no information to suggest that symptoms associated with Omicron are different from those from other variants.
- Initial reported infections were among younger individuals who tend to have more mild disease
- All variants of COVID-19, including the Delta variant that is dominant worldwide, can cause severe disease or death, in particular for the most vulnerable people, and thus prevention is always key.

WHO Recommendations

- **Effectiveness of prior SARS-CoV-2 infection**
 - Preliminary evidence suggests there may be an increased risk of reinfection with Omicron (ie, people who have previously had COVID-19 could become reinfected more easily with Omicron).
- **Effectiveness of vaccines:**
 - Unclear for omicron,
 - Vaccines remain critical to reducing severe disease and death, including against the dominant circulating variant, Delta. Current vaccines remain effective against severe disease and death.
- **Effectiveness of current tests:**
 - PCR tests continue to detect infection, even Omicron,
 - Studies are ongoing to determine whether there is any impact on other types of tests, including rapid antigen detection tests.
- **Effectiveness of current treatments:**
 - Corticosteroids and IL6 Receptor Blockers will still be effective for managing patients with severe COVID-19. Other treatments will be assessed to see if they are still as effective given the changes to parts of the virus in the Omicron variant.

WHO Recommendations for countries

- Enhancing surveillance and sequencing of cases & Reporting initial cases or clusters
- Sharing genome sequences on publicly available databases, such as GISAID;
- Performing field investigations and laboratory assessments to better understand transmission or disease characteristics, or impacts effectiveness of vaccines, therapeutics, diagnostics or public health and social measures.
- Continue to implement the effective public health measures to reduce COVID-19 circulation overall, using a risk analysis and science-based approach.
- Increase some public health and medical capacities to manage an increase in cases.
- Lobby that inequities in access to COVID-19 vaccines, treatment and diagnostics are urgently addressed



WHO Recommendations to you

- The most effective steps individuals can take to reduce the spread of the COVID-19 virus is to:
 - Keep a physical distance of at least 1 metre from others;
 - Wear a well-fitting mask;
 - Open windows to improve ventilation;
 - Avoid poorly ventilated or crowded spaces;
 - Keep hands clean;
 - Cough or sneeze into a bent elbow or tissue;
 - Get vaccinated.



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