Member State Information Session, 25 February 2021
EPIDEMIOLOGICAL UPDATE
Global Situation: Weekly Overview
(as of 21 February 10H CET)

* Data are incomplete for the current week. Cases depicted by bars; deaths depicted by line.
Weekly situation by WHO region
(as of 21 February 10H CET)

* Data are incomplete for the current week. Cases depicted by bars; deaths depicted by line. Note different scales for y-axes.
Percentage change in COVID-19 cases over the last seven days relative to the previous seven days (as of 21 February 2021 10:00AM CET)
## Countries driving the decrease in cases

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of cases reported in week 7 (15 to 21 February)</th>
<th>Number of cases reported in week 3 (18 to 24 January)</th>
<th>% decrease in cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States of America</td>
<td>480,467</td>
<td>1259902</td>
<td>-61.9</td>
</tr>
<tr>
<td>Brazil</td>
<td>316,221</td>
<td>360428</td>
<td>-12.3</td>
</tr>
<tr>
<td>The United Kingdom</td>
<td>78569</td>
<td>260098</td>
<td>-69.8</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>92843</td>
<td>151191</td>
<td>-38.6</td>
</tr>
<tr>
<td>France</td>
<td>131179</td>
<td>138288</td>
<td>-5.1</td>
</tr>
<tr>
<td>Mexico</td>
<td>51537</td>
<td>122555</td>
<td>-57.9</td>
</tr>
<tr>
<td>Colombia</td>
<td>31832</td>
<td>117239</td>
<td>-72.8</td>
</tr>
<tr>
<td>Spain</td>
<td>29764</td>
<td>109000</td>
<td>-72.7</td>
</tr>
<tr>
<td>Germany</td>
<td>51998</td>
<td>101418</td>
<td>-48.7</td>
</tr>
<tr>
<td>India</td>
<td>86711</td>
<td>96548</td>
<td>-10.2</td>
</tr>
<tr>
<td>Italy</td>
<td>84977</td>
<td>86452</td>
<td>-1.7</td>
</tr>
<tr>
<td>Portugal</td>
<td>12260</td>
<td>85053</td>
<td>-85.6</td>
</tr>
<tr>
<td>Indonesia</td>
<td>60650</td>
<td>80832</td>
<td>-25.0</td>
</tr>
<tr>
<td>South Africa</td>
<td>12304</td>
<td>79180</td>
<td>-84.5</td>
</tr>
<tr>
<td>Argentina</td>
<td>33128</td>
<td>70783</td>
<td>-53.2</td>
</tr>
<tr>
<td>Canada</td>
<td>20280</td>
<td>41700</td>
<td>-51.4</td>
</tr>
<tr>
<td>Japan</td>
<td>10035</td>
<td>38365</td>
<td>-73.8</td>
</tr>
<tr>
<td>Netherlands</td>
<td>26313</td>
<td>37381</td>
<td>-29.6</td>
</tr>
<tr>
<td>Israel</td>
<td>10644</td>
<td>29421</td>
<td>-63.8</td>
</tr>
<tr>
<td>Chile</td>
<td>23450</td>
<td>29154</td>
<td>-19.6</td>
</tr>
</tbody>
</table>
Countries with >50% decrease in cases in the past 4 weeks
TPR of countries with >50% decrease in cases in the past 4 weeks
Percentage change in COVID-19 deaths over the last seven days relative to the previous seven days (as of 21 February 2021 10:00AM CET)

Data Source: World Health Organization
Map Production: WHO Health Emergencies Programme

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VARIANT UPDATE
B.1.1.7, 20I/501Y.V1, **VOC202012/01**

<table>
<thead>
<tr>
<th>First detected by</th>
<th>United Kingdom</th>
</tr>
</thead>
<tbody>
<tr>
<td>First appearance</td>
<td>20 September 2020</td>
</tr>
<tr>
<td>Key mutations</td>
<td>H69/V70 deletion; Y144 deletion; N501Y; A570D; D614G; P681H; S106/G107/F108 deletion in NSP6</td>
</tr>
<tr>
<td>Transmissibility*</td>
<td>Increased (43%-82%), increased secondary attack rate (10% to 13%)</td>
</tr>
<tr>
<td>Severity*</td>
<td>Likely associated with an increased risk of hospitalisation and death compared to infection with non-VOC viruses.</td>
</tr>
<tr>
<td>Neutralization capacity*</td>
<td>Slight reduction but overall neutralizing titers remained above the levels expected to confer protection</td>
</tr>
<tr>
<td>Potential impacts on vaccines*</td>
<td>No significant impact on Moderna, Pfizer-BioNTech, and Oxford-AstraZeneca</td>
</tr>
<tr>
<td>Potential impacts on diagnostics*</td>
<td>S gene target failure. No impact on Ag RDTs observed</td>
</tr>
<tr>
<td>Countries reporting cases (community transmission) as of 23 Feb</td>
<td>101 (45)</td>
</tr>
</tbody>
</table>

*Generalized findings as compared to non-VOC viruses. Based on emerging evidence from multiple countries, including non-peer-reviewed preprint articles and reports from public health authorities and researchers – all subject to ongoing investigation and continuous revision.*

Countries reporting community transmission of VOC202012/01

- Where community transmission has been reported, predominantly decreasing trends in new case, hospitalizations, deaths over the past 4 weeks
- Implementation of PHSM has reduced transmission

Data taken from COVID Intel database on 2021-02-25. The lines and associated text show the trend in incidence of COVID-19 cases.
# B.1.351, 20H/501Y.V2, VOC202012/02

<table>
<thead>
<tr>
<th>First detected by</th>
<th>South Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>First appearance</td>
<td>Early August 2020</td>
</tr>
<tr>
<td>Key mutations</td>
<td>L242/A243/L244 deletion; N501Y; D614G; E484K; K417N; S106/G107/F108 deletion in NSP6</td>
</tr>
<tr>
<td>Transmissibility*</td>
<td>Increased [1.50 (95% CI: 1.20-2.13) times more transmissible than previously circulating variants]</td>
</tr>
<tr>
<td>Severity*</td>
<td>No impact reported to date, no significant change in-hospital mortality</td>
</tr>
<tr>
<td>Neutralization capacity*</td>
<td>Decreased, suggesting potential increased risk of reinfection</td>
</tr>
<tr>
<td>Potential impacts on vaccines*</td>
<td>Reduction in the neutralizing activity, but impact on protection against disease or relative importance of other immune response mechanisms (e.g., T/B-cells), not fully known. Potentially decreased based on small, prelim studies.</td>
</tr>
<tr>
<td>Potential impacts on diagnostics*</td>
<td>None reported to date.</td>
</tr>
<tr>
<td>Countries reporting cases (community transmissions) as of 23 Feb</td>
<td>51 (13)</td>
</tr>
</tbody>
</table>

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*Generalized findings as compared to non-VOC viruses. Based on emerging evidence from multiple countries, including non-peer-reviewed preprint articles and reports from public health authorities and researchers – all subject to ongoing investigation and continuous revision.*

Countries/territories/areas reporting lineage B.1.351
(situation as of 22 February 2021)

Transmission
- Community transmission (13)
- Imported/Sporadic (17)
- Pending (21)

Verification
- Under verification

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.
Countries reporting community transmission of B.1.351

- Observed declines in incidence, hospitalizations, deaths in South Africa and most neighbouring countries
- Implementation of PHSM has reduced transmission

Data taken from COVID Intel database on 2021-02-25. The lines and associated text show the trend in incidence of COVID-19 cases.
### B.1.128.P.1, 20J/501Y.V3

<table>
<thead>
<tr>
<th><strong>First detected by</strong></th>
<th>Brazil / Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First appearance</strong></td>
<td>December 2020</td>
</tr>
<tr>
<td><strong>Key mutations</strong></td>
<td>N501Y; D614G; E484K; K417N; S106/G107/F108 deletion in NSP6</td>
</tr>
<tr>
<td><strong>Transmissibility</strong>*</td>
<td>Suggested to be increased</td>
</tr>
<tr>
<td><strong>Severity</strong>*</td>
<td>Under investigation, no impact reported to date</td>
</tr>
<tr>
<td><strong>Neutralization capacity</strong>*</td>
<td>Potential decrease, small number of reinfections reported</td>
</tr>
<tr>
<td><strong>Potential impacts on vaccines</strong>*</td>
<td>Under investigation</td>
</tr>
<tr>
<td><strong>Potential impacts on diagnostics</strong>*</td>
<td>None reported to date</td>
</tr>
<tr>
<td><strong>Countries reporting cases (Community transmission) as of 23 Feb</strong></td>
<td>29 (3)</td>
</tr>
</tbody>
</table>

*Generalized findings as compared to non-VOC viruses. Based on emerging evidence from multiple countries, including non-peer-reviewed preprint articles and reports from public health authorities and researchers – all subject to ongoing investigation and continuous revision.*

Countries reporting community transmission of variant P.1

- Incidence rates in Brazil remain elevated, and increasing in Peru.
- These countries have highly heterogenous epidemiological patterns, and the relative contribution of variant P.1, as well as potential impact on the effectiveness of PHSM and countermeasures requires further investigation.

Data taken from COVID Intel database on 2021-02-25. The lines and associated text show the trend in incidence of COVID-19 cases.
REPORTING AND DEFINING VARIANTS
Proposed working definitions and actions

Variant of interest (VOI):
• A SARS-CoV-2 isolate that is phenotypically changed compared to a reference isolate or that has a genome with mutations that lead to amino acid changes associated with established or suspected phenotypic implications;

AND
• has been identified to cause community transmission/multiple COVID-19 case clusters, or has been detected in multiple countries;

OR
• is otherwise assessed to be a VOI by WHO in consultation with the WHO SARS-CoV-2 Virus Evolution Working Group (VEWG).

1. Phenotypic changes include changes in the epidemiology, antigenicity, or virulence or changes that have a negative impact on diagnostics, vaccines, therapeutics or public health and social measures. WHO will provide guidance on amino acid changes with established or suspected phenotypic implications, and may be informed by a database on key amino acid changes, or as reported in the scientific literature.
2. See WHO Public health surveillance for COVID-19: interim guidance for definitions

Actions for potential VOIs:
• Member States:
  — Inform WHO by VOI-associated cases (person, place, time, clinical and other relevant characteristics) through established WHO Country or Regional Office reporting channels.
  — Submit full genome sequences and metadata to public database
  — Perform field investigations to improve understanding of the potential impacts of the VOI (epidemiology, severity, effectiveness of countermeasures, or other relevant characteristics).

• WHO:
  — Assessment by WHO SARS-CoV-2 VEWG. If meets criteria, and if meets criteria, designation as VOI.
  — If determined necessary, coordinate lab investigations with Member States and partners.
  — Review global epidemiology of VOI.
  — Monitor and track global spread of VOI.
Proposed working definitions and actions

Variant of concern (VOC):

• A VOI (as defined above) that, through a comparative assessment, has been demonstrated to be associated with:
  – Increase in transmissibility or change in the epidemiology;
  – Increase in virulence or change in disease presentation; or
  – Decrease in effectiveness of available diagnostics, vaccines, therapeutics, or public health and social measures.

Actions:

• WHO for a potential VOC:
  – Assessment and if meets criteria, designation as VOC.
  – Assessment by VEWG and, if determined necessary, coordinate lab investigations with Member States and Partners.
  – Conduct rapid risk assessment as warranted.
  – Communicate new designations and findings to Member States and public
  – Evaluate WHO guidance and update, if necessary.

• Member States, if a VOC is identified:
  – Report initial cases/clusters to WHO through IHR mechanism.
  – Submit complete genome sequences and associated metadata to a publicly available database.
  – Where capacity exists and in coordination with the international community, perform field investigations to improve understand of the potential impacts of the VOC on COVID-19 epidemiology, severity, effectiveness of countermeasures, or other relevant characteristics.
  – Perform laboratory assessments on the impact of the VOC on diagnostic methods, immune responses, antibody neutralization or other relevant characteristics, when such lab capacity is available.
WHO resources and updates

Resources

• COVAX Statement on New Variants of SARS-CoV-2
• SARS-CoV-2 genomic sequencing for public health goals: Interim guidance, 8 January 2021
• Genomic sequencing of SARS-CoV-2: a guide to implementation for maximum impact on public health
• Q&A on Coronavirus disease (COVID-19): Virus Evolution

Updates

• Disease Outbreak News - SARS-CoV-2 Variants- 29 December 2020
• Weekly Epidemiological Updates – From 12 January to date
Monitoring and assessing SARS-CoV-2 variants and their impact
Overall objectives and principles

• Objectives
  – Coordinate the components of a global harmonized mechanism for monitoring and assessing SARS-CoV-2 variants and their impact
  – Identify critical priorities, thresholds, and triggers for decision-making
  – Enhance the multi-disciplinary coordination mechanism to collect, analyze, and share data to inform decision-making
  – Leverage and enhance existing technical networks, systems, and expert groups

• Principles
  – Evidence-based: Decisions and communications will be evidence-based, transparent, and consistent.
  – Sustainability: Member States will be supported to develop and strengthen sustainable and agile capacities, which can be adapted to new threats.
  – Equity: Equity is a key consideration in analysis, development, and communication of recommendations.
  – Partnerships: Stronger and more effective collaboration and coordination across WHO and with external partners is necessary.
Two elements of the approach

1. Risk monitoring & assessment framework
   – Highlight various elements that we need to consider for decision-making
   – Will guide data collection, sharing, analysis

2. Coordination mechanism
   – Architecture for who contributes, when, and on what

System is already established – many components are in progress, need to enhance them for longer term and more sustainable use
Variants are expected, but not every variant of interest will be of concern
  – Important to identify and assess variants, and communicate accordingly

Need to evaluate the impact of SARS-CoV-2 variants on public health and social measures, vaccination programmes, medical countermeasures, health systems
  – Globally-coordinated response is essential, including any changes to diagnostics, therapeutics, or vaccines and vaccination policies and strategies (if needed)

An integrated framework can identify what decisions must be made and what data will support the decision-making
Monitoring and assessing SARS-CoV-2 variants

Enhancing existing systems & networks, building capacities where needed

Member States

Technical Networks

Partners

Coordination Mechanism

Enhanced Surveillance

Viral Evolution

Clinical Management

R&D

Policy

Regulatory

Rapid risk assessments

Research agenda

Other outputs (e.g., urgent VE evaluation)

PHSM recommendations

MCM recommendations

Health system recommendations

World Health Organization
Quick update: WHO guidance on SARS-CoV-2 sequencing

- Practical considerations when implementing a sequencing programme
- Data sharing recommendations
- Applications of genomics to COVID-19
- Practical guidance on technical aspects (logistics, biosafety, technology selection, bioinformatics protocols and analysis tools)
- Checklist for setting up a programme
Global SARS-CoV-2 Sequencing Capacities

- **Globally:**
  - 523,778 WGS in GISAID
  - 134/194 (69%) countries submitted WGS
  - 5% of sequences with metadata

- **GISRS:**
  - At least 61% GISRS labs submitted WGS to GISAID
    - 95 labs from 78 countries
  - 32 GISRS labs support sequencing for other GISRS and non-GISRS labs
Next steps

- Definitions and actions required for SARS-CoV-2 VOI/VOC
- Nomenclature for VOC
- Coordination of Research and Development on variants
  - Transmission, severity, potential impacts on diagnostics, therapeutics and vaccines
- Information Sharing
  - WHO Weekly Situation Rep
  - EIS/DON
  - Guidance
  - MS Briefings
- Global Consultations
- Partner Coordination