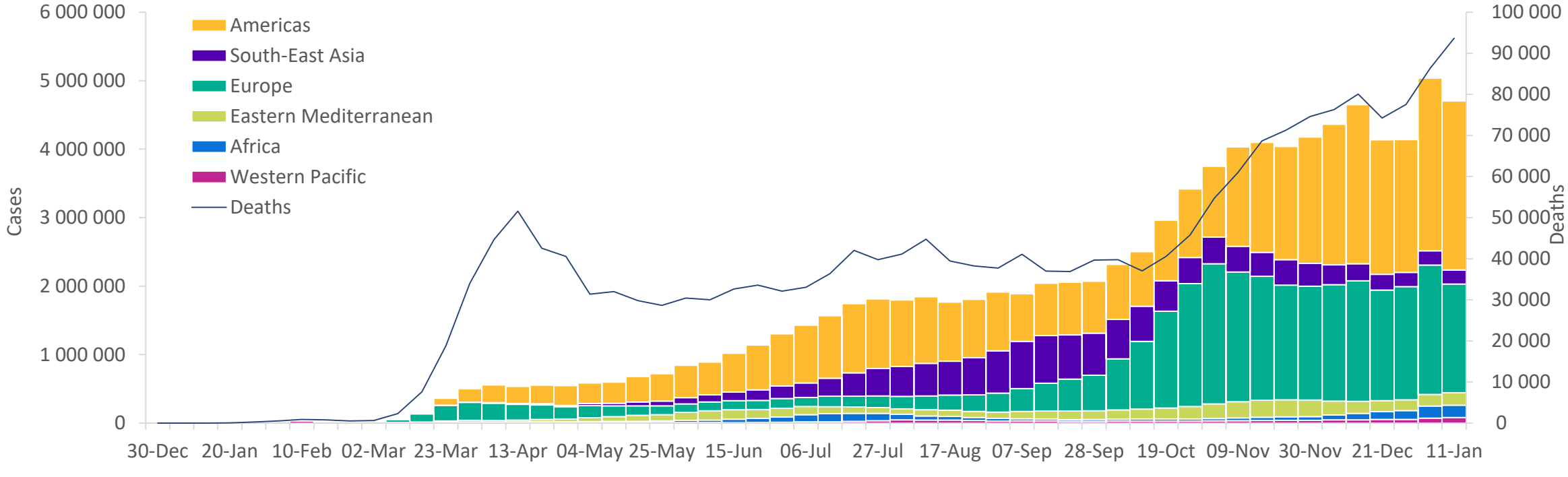

World Health Organization

# COVID-19 Situation and Strategic Response

REPORT TO THE EXECUTIVE BOARD

# GLOBAL EPIDEMIOLOGICAL TREND

As of 17 Jan 2021




**28 Oct:** 5th IHR EC; ~43 million cases, 1.16 million deaths

**5 Nov:** TORs for Global Study of Origins of SARS-CoV-2 published; Denmark report new mink-associated variant

**14 Dec:** UK highlights concern over variant VOC 202012/01

**18 Dec:** RSA report detection of new variant 501Y.V2

**31 Dec:** WHO issue first emergency use validation of COVID-19 vaccine (Pfizer/BioNTech Comirnaty)

**12 Jan:** International mission on virus origins travels to China

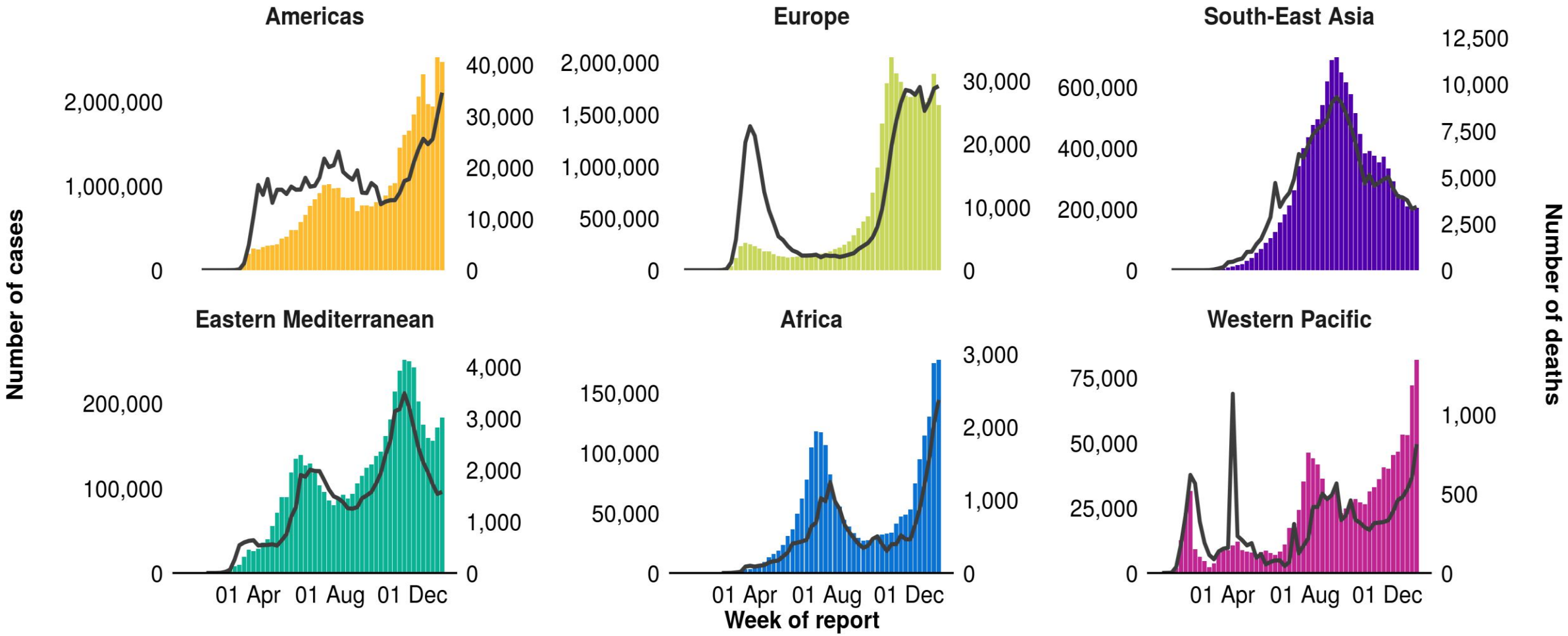
**18 Jan**: 93 million cases, >2 million deaths

World Health Organization

* Data are incomplete for the current week. Cases depicted by bars; deaths depicted by line.

# WEEKLY SITUATION BY WHO REGION

As of 17 Jan 2021




** Data are incomplete for the current week. Cases depicted by bars; deaths depicted by line. Note different scales for y-axes.*

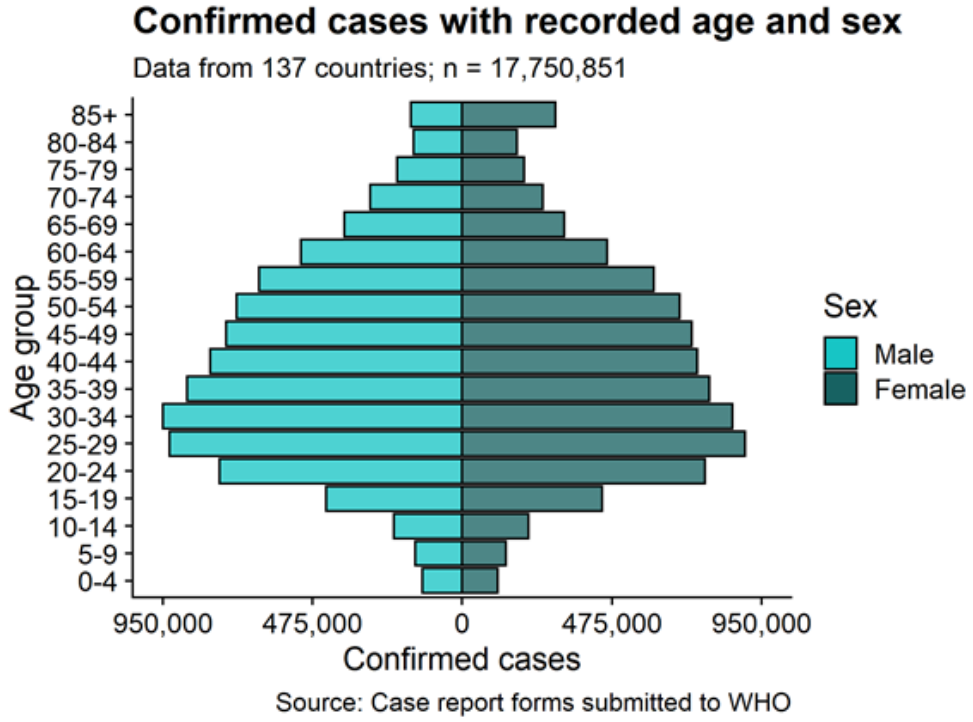
World Health Organization

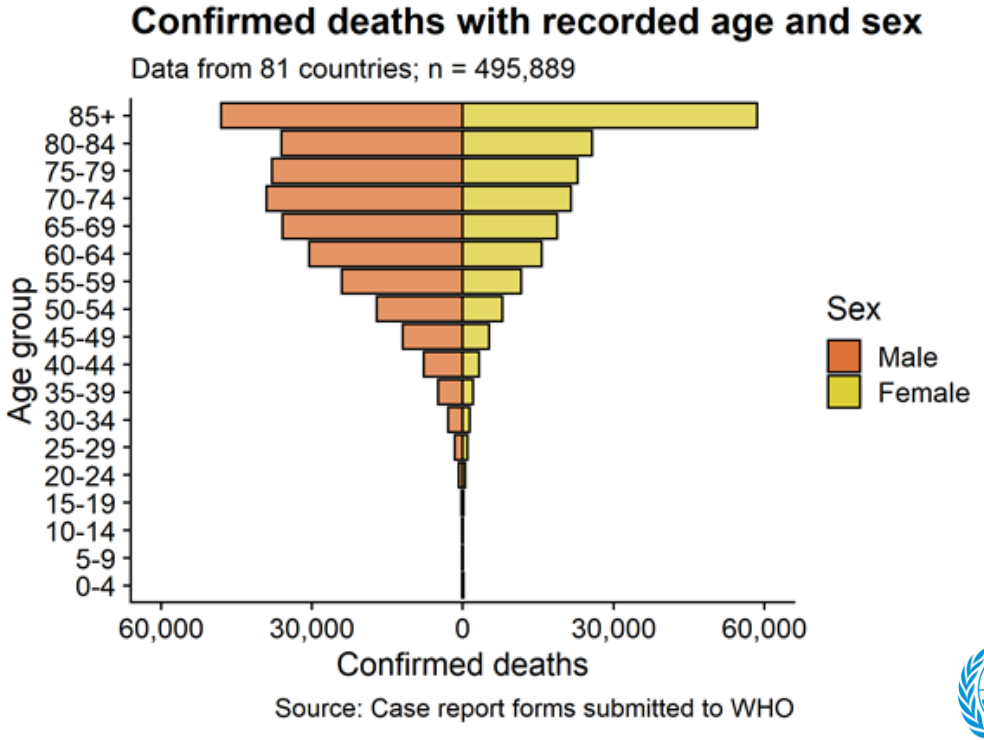
Data Source: *World Health Organization* | United Nations Population Division (Population Prospect 2020)

# AGE & GENDER DISTRIBUTION: CASES & DEATHS

| Gender | Female | Male |
|---|---|---|
| Cases | 49% | 51% |
| Deaths | 43% | 57% |

| Age groups | Cases | Deaths |
|---|---|---|
| 0-4 | 1.4% | 0.10% |
| 5-14 | 3.8% | 0.05% |
| 15-24 | 11.7% | 0.21% |
| 25-64 | 63.2% | 16,16% |
| 65-84 | 20% | 83.48% |

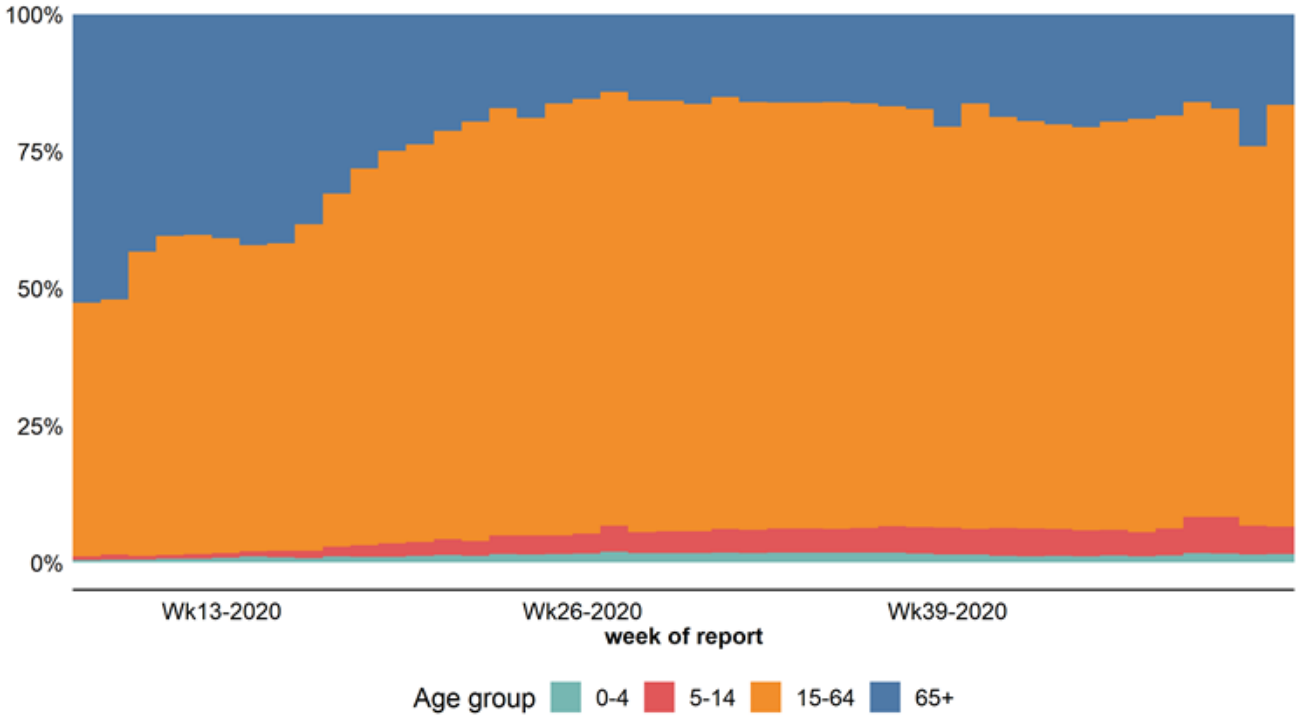


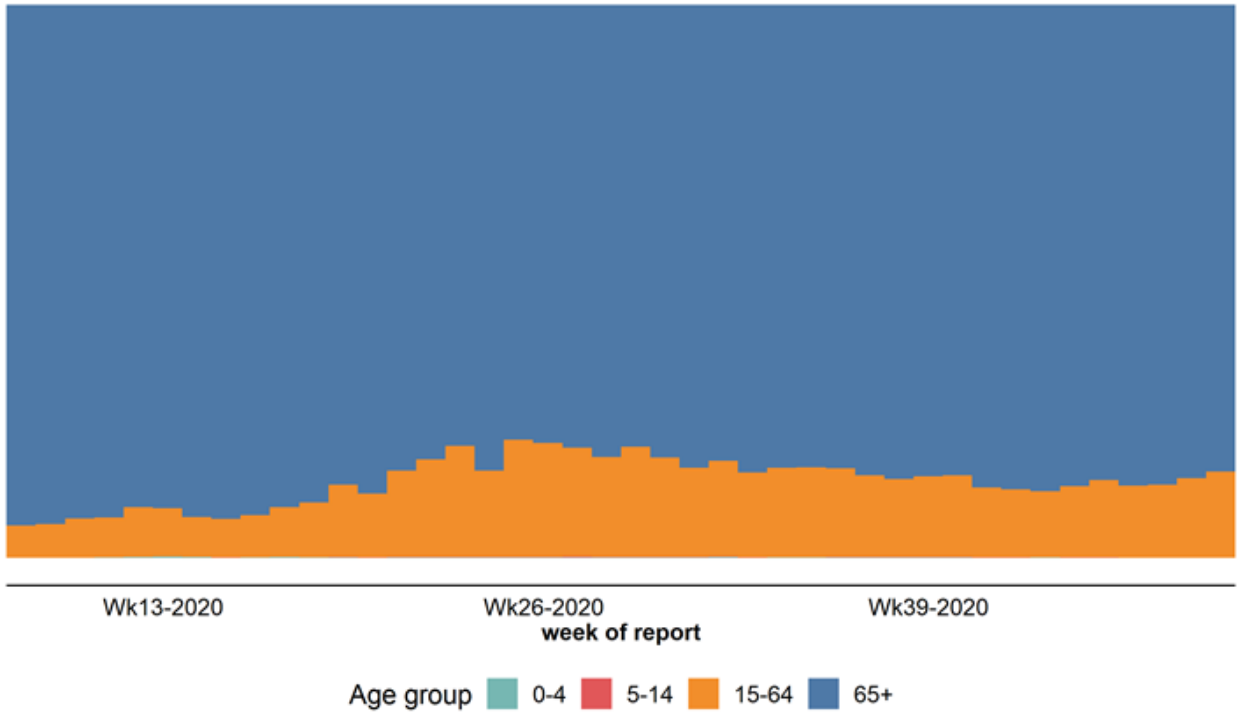

World Health Organization

# AGE DISTRIBUTION OF CASES & DEATHS OVER TIME

## Cases



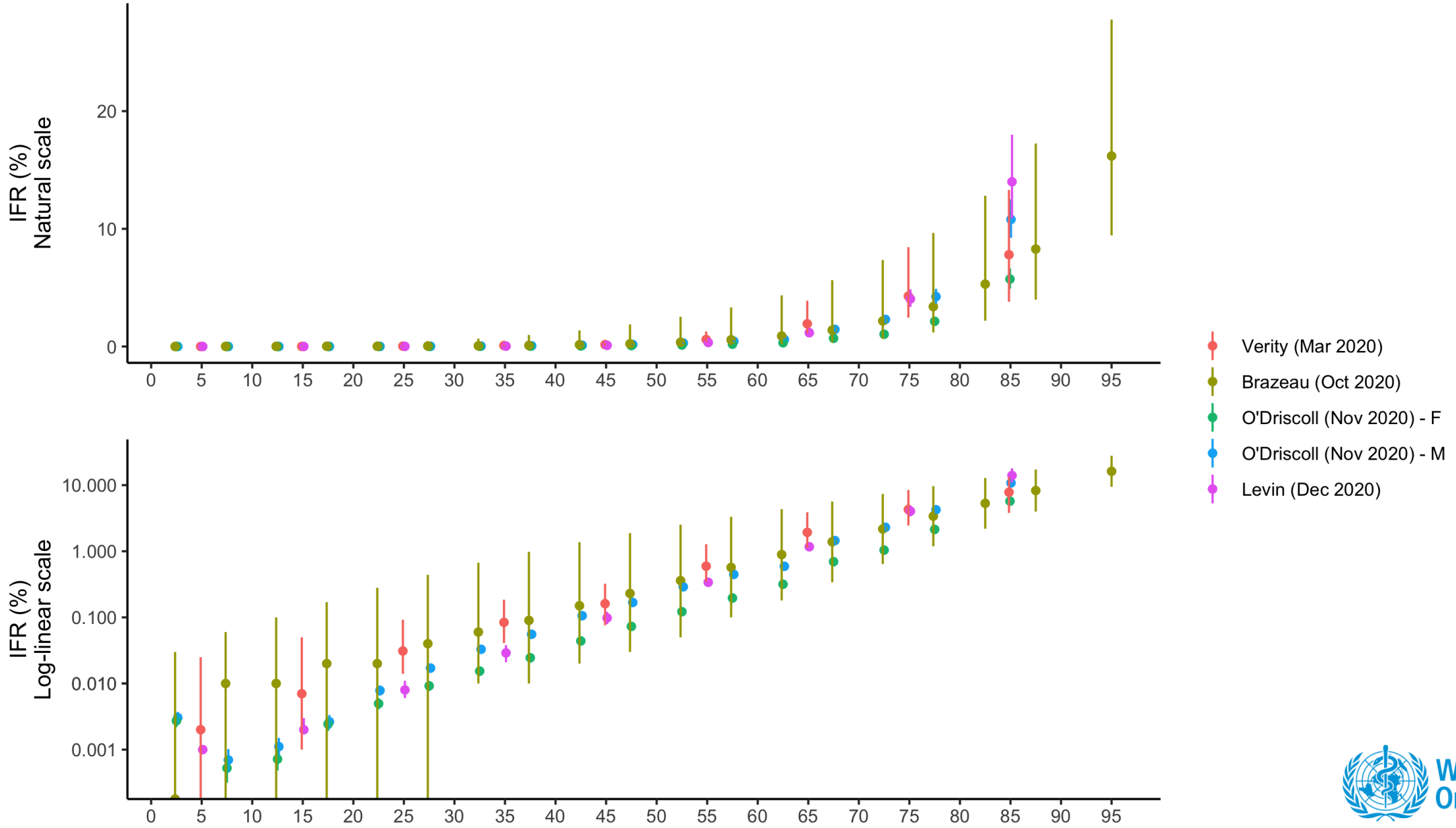

## Deaths




Data Source: *World Health Organization case report form* | Data as of 12 January 2021

World Health Organization

# AGE-SPECIFIC INFECTION FATALITY RATE




World Health Organization

# RISK FACTORS FOR DISEASE SEVERITY AND MORTALITY

## Main co-morbidities as risk factors for severe outcome

| | All studies | | Only adjusted* studies | |
|---|---|---|---|---|
| | Odds Ratio (95% CI) | Number of studies | Odds Ratio (95% CI) | Number of studies |
| Cardiovascular disease | 1.69 (1.13-2.54) | 7 | 1.08 (0.72-1.60) | 3 |
| Respiratory disease | 1.66 (1.36-2.01) | 8 | 1.46 (0.96-2.23) | 4 |
| Cancer | 1.98 (1.56-2.50) | 19 | 1.30 (0.86-1.98) | 4 |
| Diabetes | 1.51 (1.21-1.89) | 22 | 1.33 (1.15-1.54) | 8 |
| Liver disease | 1.52 (1.24-1.85) | 7 | 2.00 (0.94-4.28) | 1 |
| Renal disease | 2.25 (1.74-2.91) | 15 | 1.71 (1.25-2.32) | 7 |

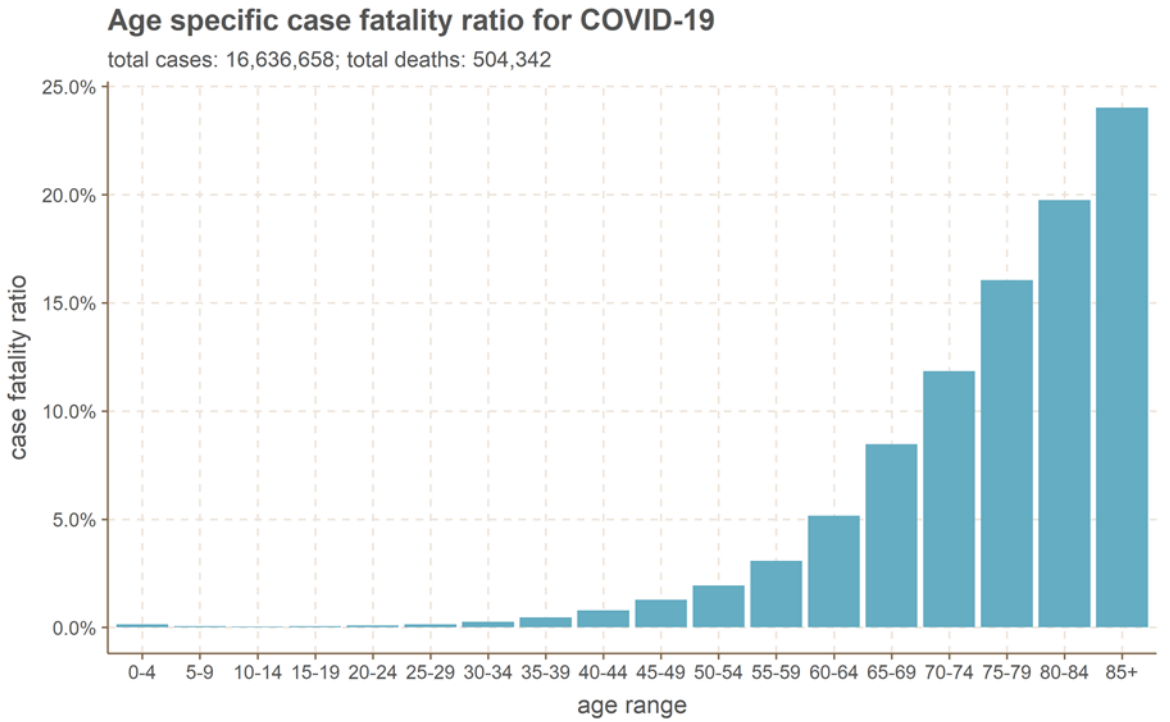
* Adjusted for at least age and sex

**Unpublished data from systematic literature review, by**

**PREP-EU consortium**
(U of Crete, U of Nottingham, Institut Catala D'Oncologia): C Vardavas, A Mathioudakis, K Nikitara, K Aslanoglou, A Tsatsakis, K Stamatelopoulos, O Tigova, D Carnier, E Fernandez, J Leonardi-Bee, R Phalkey, J Vestbo, MA Dimopoulos

**ECDC**
Pasi Penttinen, Piotr Kramarz, Jonathan Suk, Jan Semenza

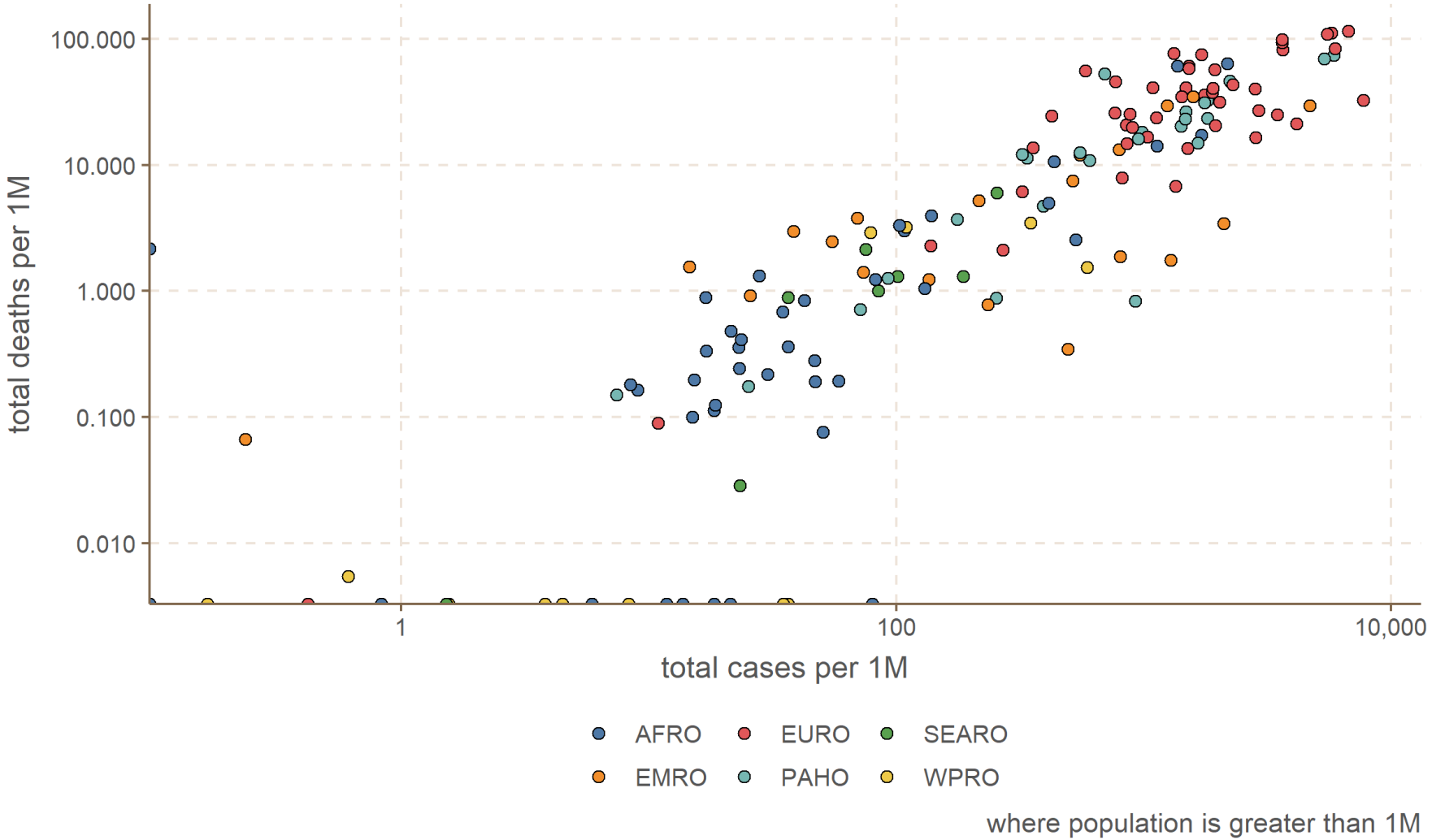
## Age a strong predictor of mortality and severity




Source: WHO Surveillance

World Health Organization

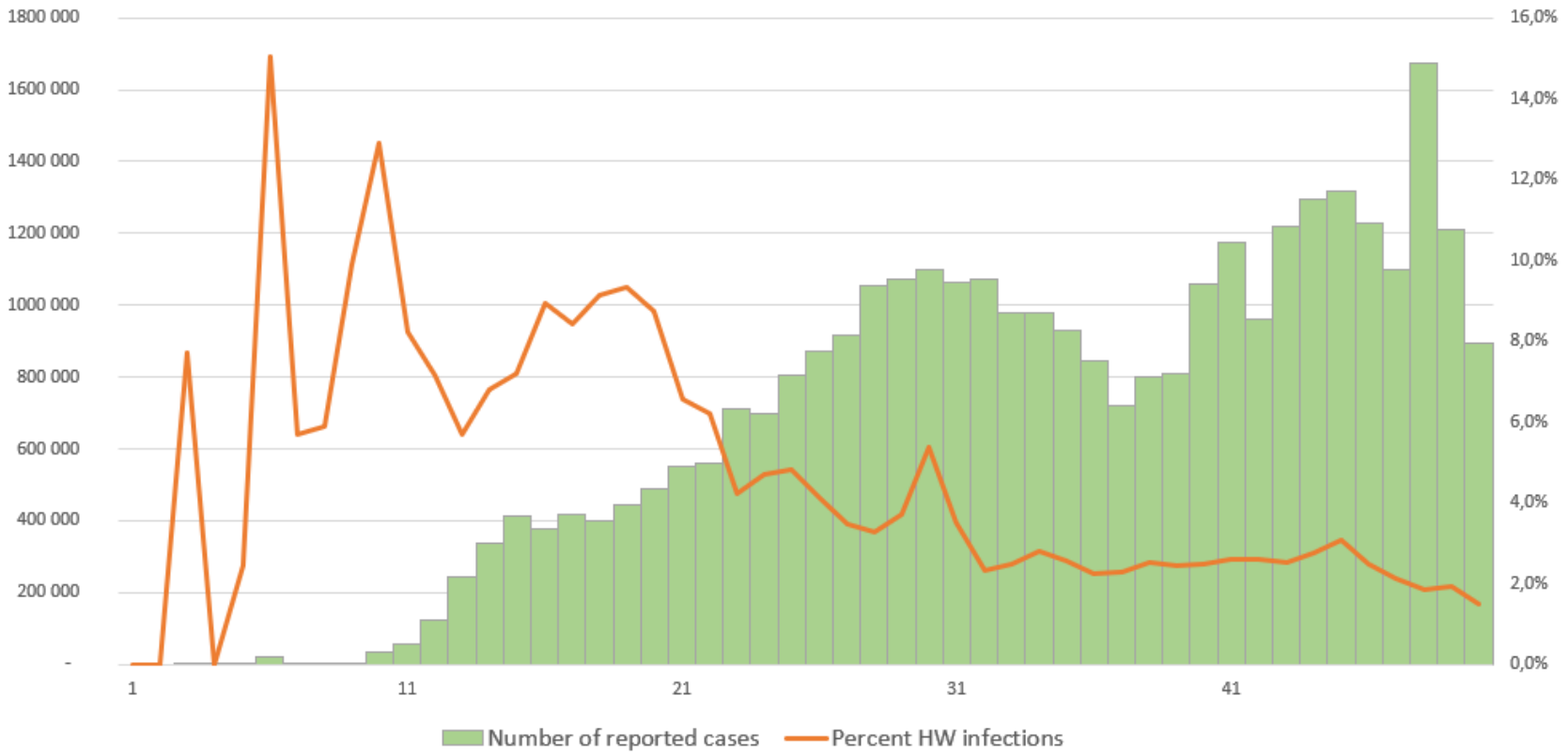
# POPULATION MORTALITY INCREASES WITH INCIDENCE




*Source: WHO, reported cases and deaths from 6 to 14 January 2021*

World Health Organization

# HEALTH WORKER INFECTIONS




Data Source: *World Health Organization case report form* | Data as of 12 January 2021

135 countries reporting HW infections;

Sig. underreporting;

1.2 million HW infections reported of 33 million case records;

7.7% of total cases, decreasing over time; sig. variation among countries.

World Health Organization

# SARS-CoV-2 VARIANTS: CONTEXT

- Viruses constantly change through mutation; the emergence of new variants is expected
  - Many mutations are neutral;
  - Some may be detrimental to the virus;
  - A small number may confer an advantage to the virus.

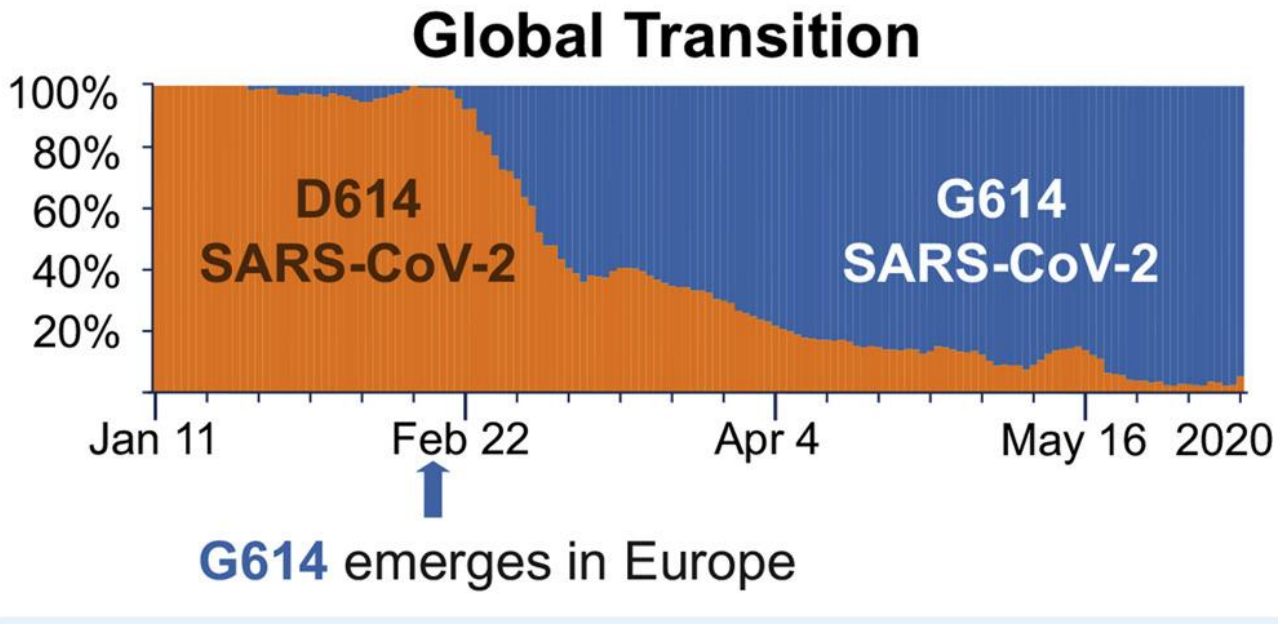
- Specific mutations and variants of concern identified in different countries highlight importance of:
  - Increasing diagnostic and sequencing capacity globally;
  - Timely sharing of sequence data internationally, and of bioinformatics;
  - Close collaboration to study potential impacts.

- Given that most countries have limited capacity for sequencing, data and epidemiology should drive PHSM
  - A tiered approach at the sub-national level is recommended (using the PHSM guidance)

- Experiments with live virus in advanced laboratories are ongoing to determine the impact of specific variants on:
  - Transmission;
  - Disease presentation and severity;
  - Impact on diagnostics, vaccines, and therapeutics.

- Coordination of research across partners is critical: WHO Virus Evolution Working Group, WHO R&D Blueprint for Epidemics, Researchers, and Manufacturers.

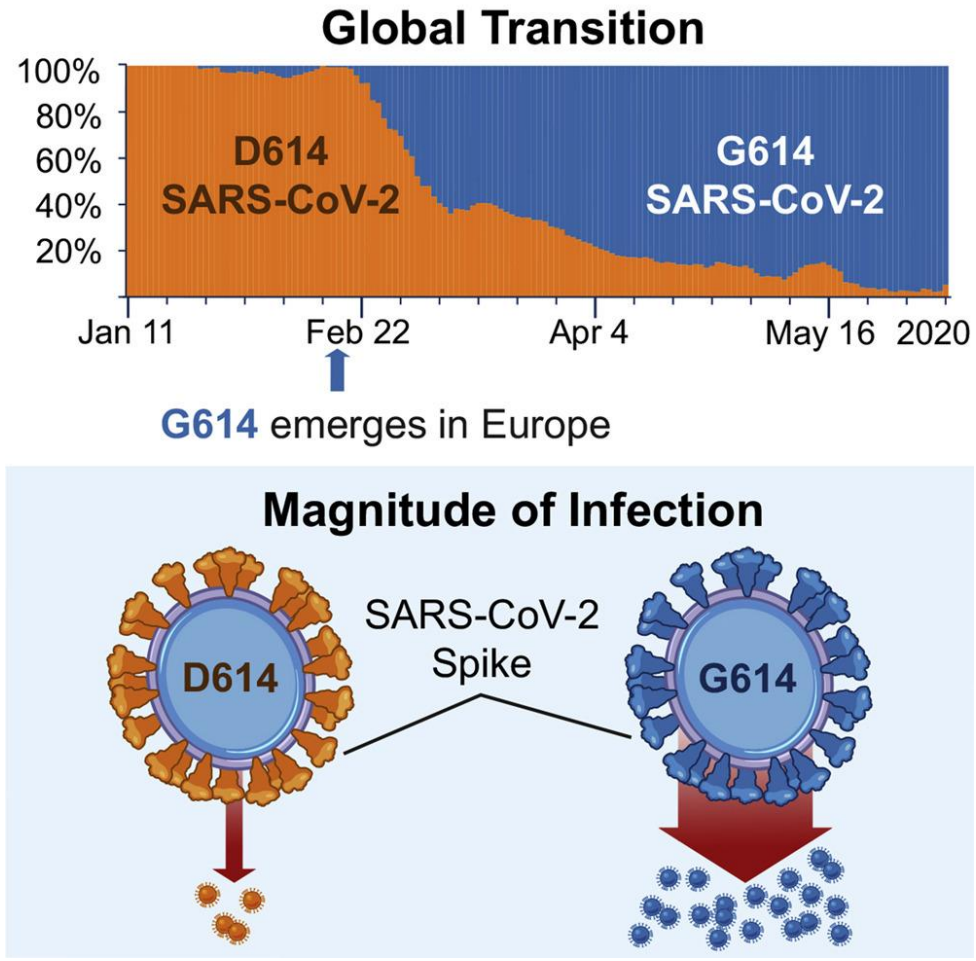
# SARS-CoV-2 MUTATIONS TO DATE

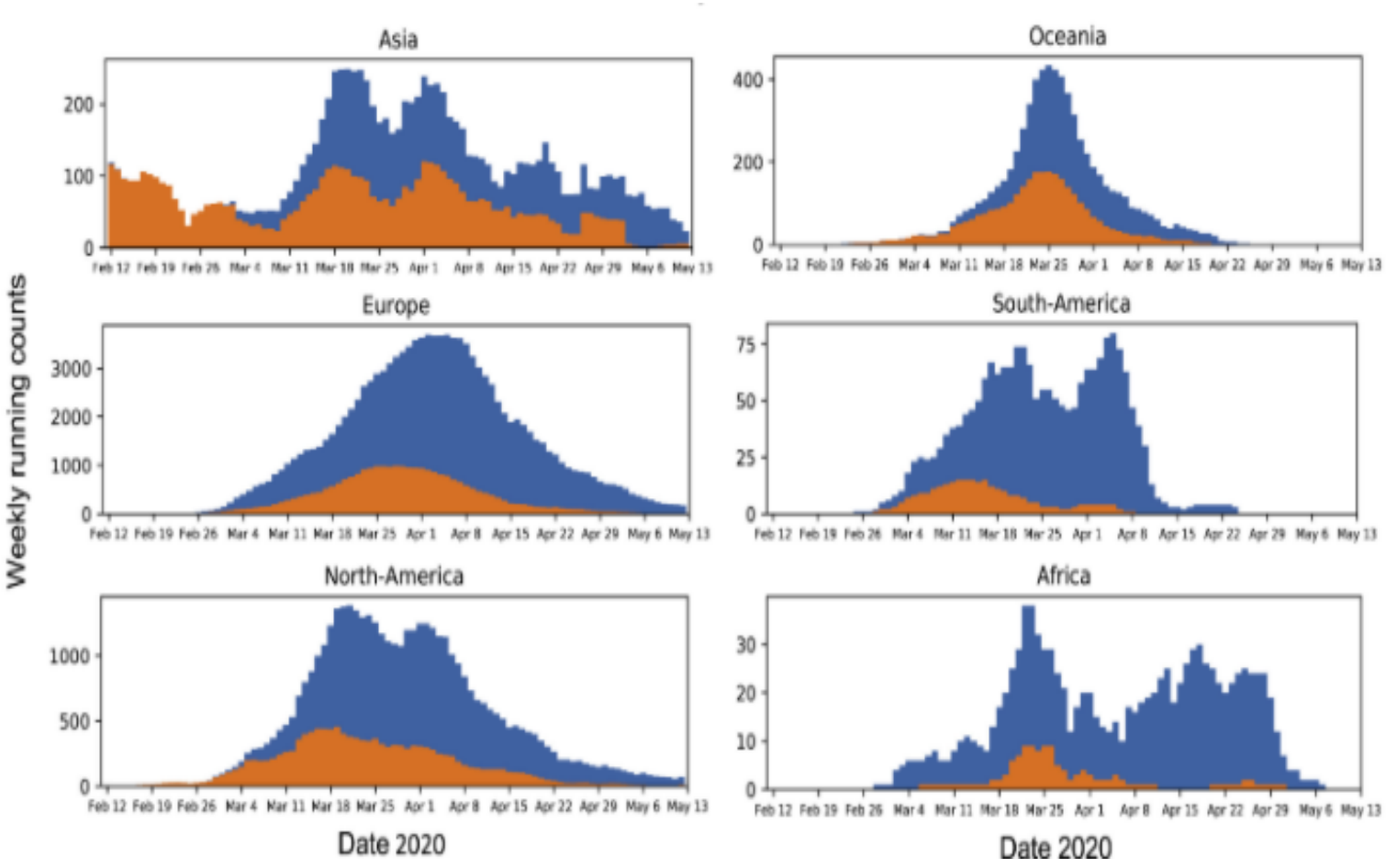



- **Jan-Feb 2020** | SARS-CoV-2 with D614G substitution and is now predominant globally
- **Aug-Sept 2020** | a mink-associated SARS-CoV-2 variant (referred to as “Cluster 5”) in Denmark
- **14 Dec 2020** | SARS-CoV-2 Variant of Concern, year 2020, month 12, variant 01 (SARS-CoV-2 VOC 202012/01) reported by the United Kingdom of Great Britain and Northern Ireland authorities
- **18 Dec 2020** | SARS-CoV-2 501Y.V2 reported by South African authorities
- **6 Jan 2021** | SARS-CoV-2 P1 lineage in Brazil by Japan from persons traveling from Brazil

World Health Organization

# PREVALENCE OF D614 AND G614 MUTATIONS OVER TIME

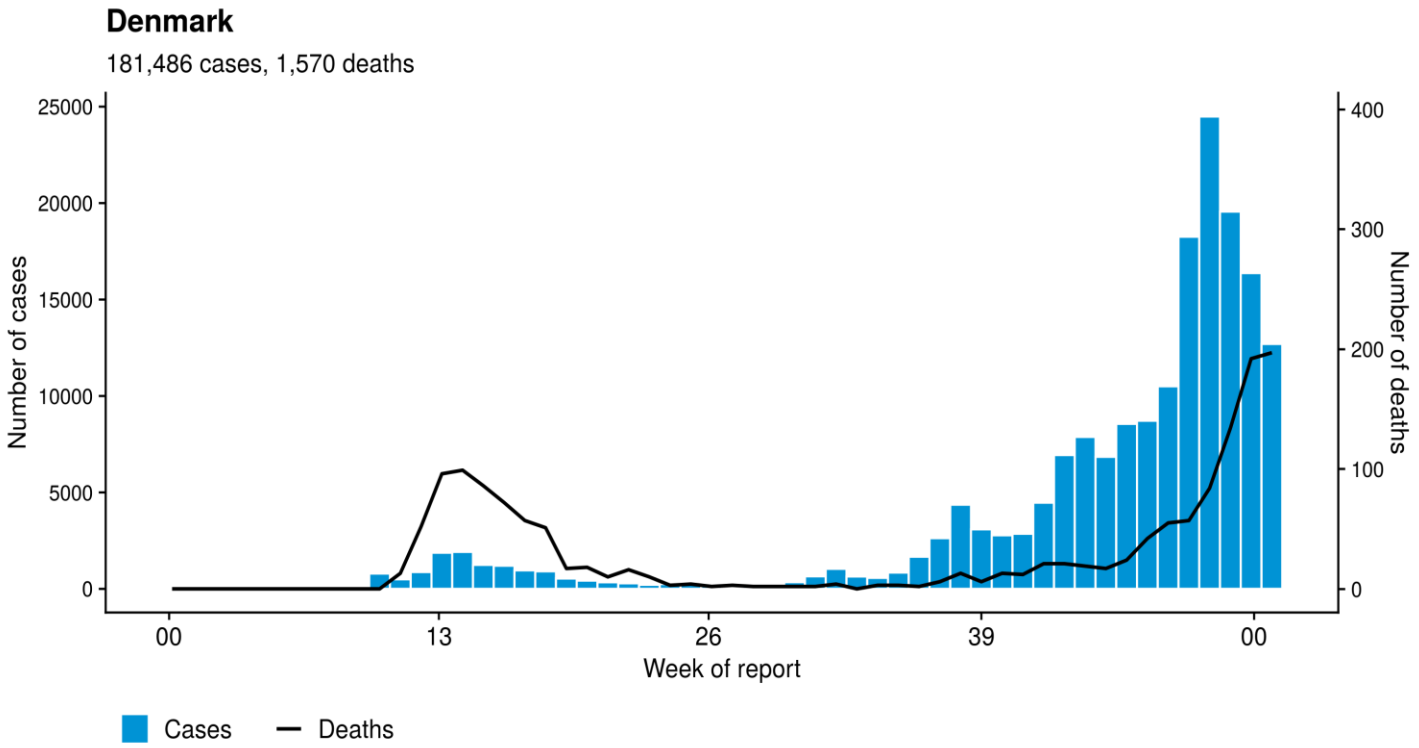



Source: Bette Korber, Will M. Fischer, Sandrasegaram Gnanakaran, et al (2020). Tracking Changes in SARS-CoV-2 Spike: Evidence that D614G Increases Infectivity of the COVID-19 Virus. Cell 182 (4): 812-827.e19.
https://doi.org/10.1016/j.cell.2020.06.043.
(http://www.sciencedirect.com/science/article/pii/S0092867420308205)

World Health Organization

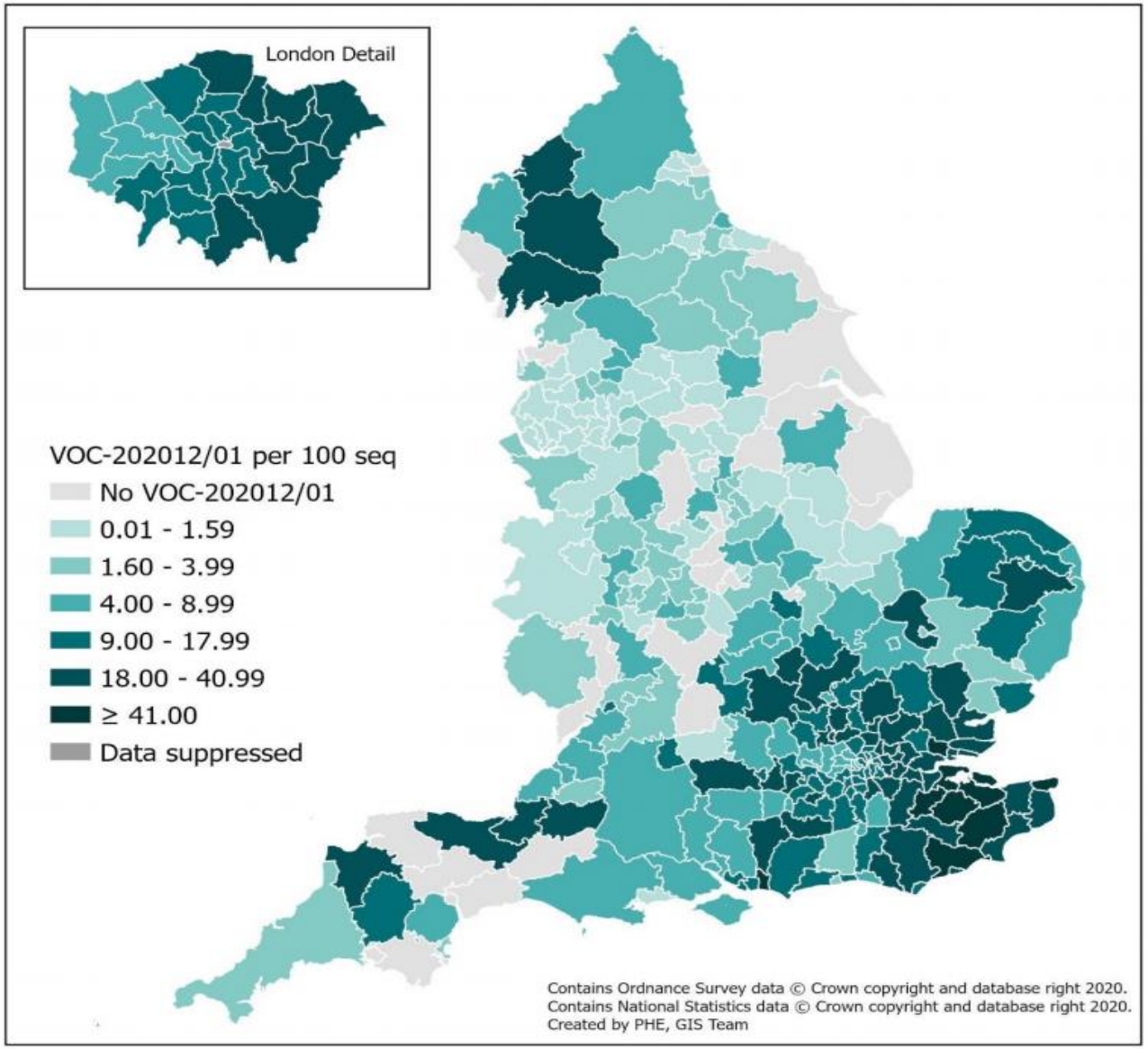
# MINK-ASSOCIATED VARIANT IN DENMARK




- Danish authorities reported extensive spread of SARS-CoV-2 among farmed mink since June 2020.
- On 5 November 2020, 12 human cases of mink-associated SARS-CoV-2 variant (referred to as “Cluster 5”) that occurred in August and September 2020 were reported.
- Cases ranged in age from 7 to 79 years; 8 had a link to the mink farming industry and 4 were from the local community. No additional cases have been identified.

World Health Organization

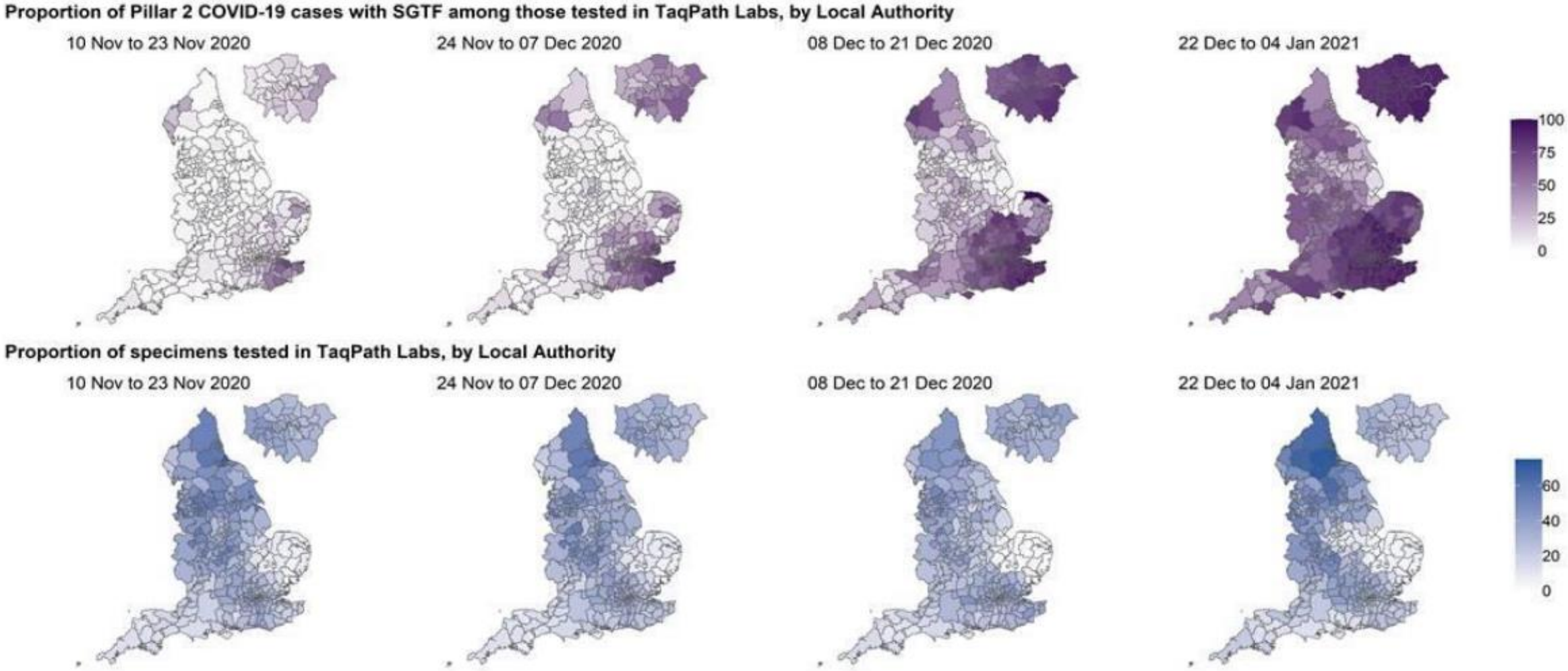
# DETECTION OF VOC 202012/01 IN THE UK




- 14 December 2020: Public Health England reported a new SARS-CoV-2 Variant of Concern (VOC) 202012/01 to WHO
- Unusually large number of mutations, particularly in the gene encoding spike protein
- As of 17 Jan, 58 countries including the United Kingdom have reported VOC202012/01 variant.

World Health Organization

# PROPORTION VOC 202012/01-COMPATIBLE CASES OVER TIME

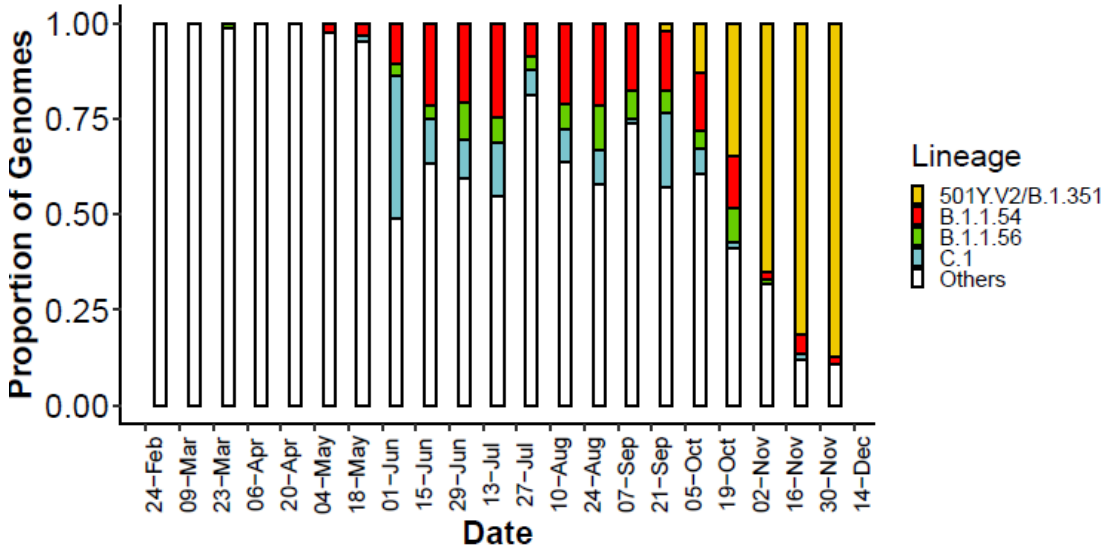



VOC-202012/01 is confirmed through whole genome sequencing. SGTF is a surveillance proxy based on PCR CT values and may include other variants.
TaqPath labs = Alderley Park, Milton Keynes and Glasgow Lighthouse Labs.
Cases deduplicated to one positive test for entire time period, prioritising SGTF tests where individuals test positive multiple times.
Data source: SGSS.

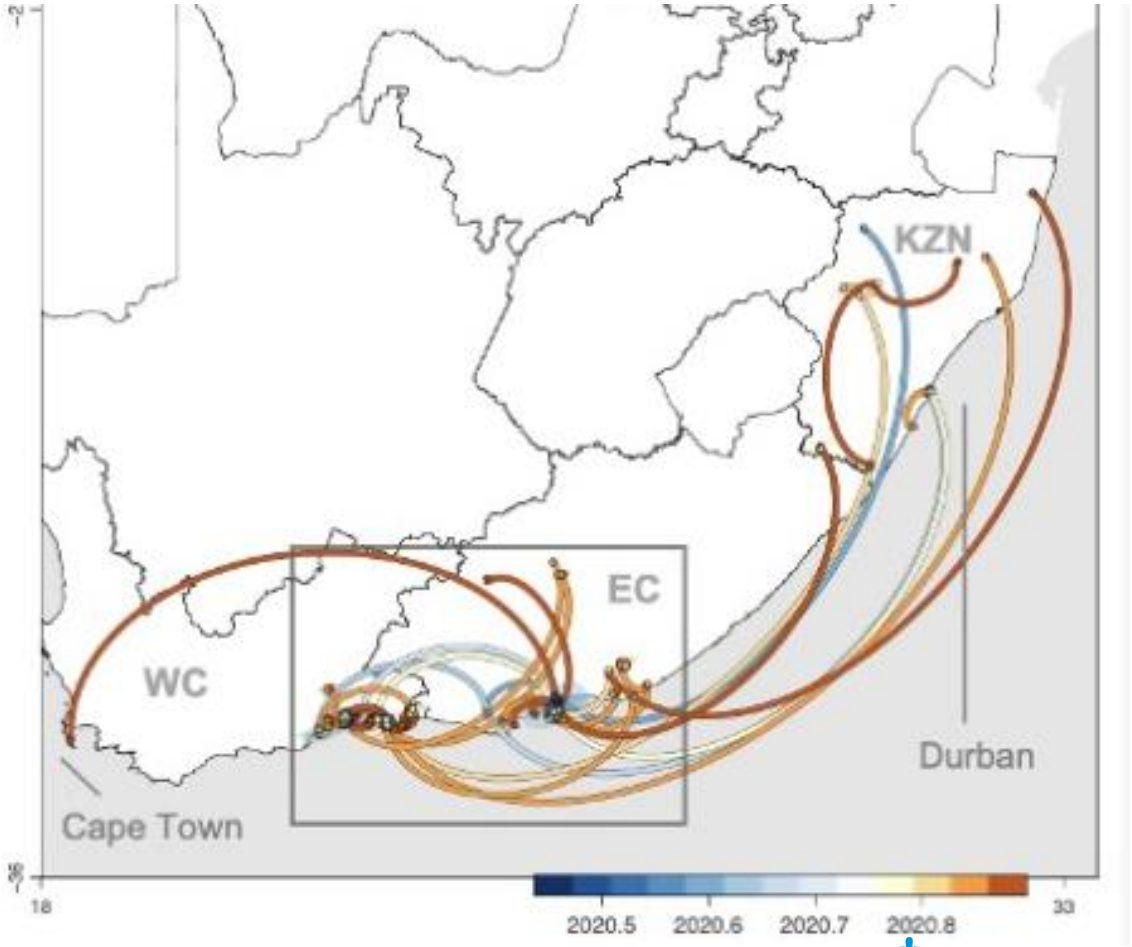
World Health Organization

# SPREAD OF 501Y.V2 WITHIN AND BEYOND SOUTH AFRICA

**Genomes sequenced from the provinces of Eastern Cape, Western Cape, KwaZulu-Natal**




**Spread of 501Y.V2 in South Africa**




As of 17 Jan, 22 countries including South Africa have reported 501Y.V2 variant.

World Health Organization

# SARS-CoV-2 GLOBAL RISK MONITORING FRAMEWORK

- **Establishing a robust risk monitoring framework to evaluate SARS-CoV-2 mutations, VOI and VOC**
  - WHO and partners developing a set of criteria and decision trees to define VOI/VOC and to assess the level of risks based on (potential) impact on public health:
    - Enhancing epidemiological surveillance and genomic sequencing capacities globally, leveraging existing sequencing capacities
    - Timely sharing of sequences and meta-data, improving phylogenetic analyses and bioinformatics
  - WHO SARS-CoV-2 Virus Evolution Working Group tracking individual mutations, VOI and VOC*
  - Coordinating sharing of samples and related materials (WHO BioHub) prioritized studies across SARS-CoV-2 laboratory network, academic laboratories and manufacturers (WHO R&D Blueprint for Epidemics)
    - Transmissibility
    - Severity
    - Neutralization
    - Diagnostics
    - Therapeutics
    - Vaccines
  - All feeding into WHO Rapid Risk Assessments

World Health Organization

# WHO GLOBAL STRATEGY FOR COVID-19

**Suppress transmission**

**Protect the vulnerable**

**Save lives**


World Health Organization

# FUNDING THE STRATEGY

**US$ 1.5 billion** raised

**US$ 1.7 billion** requested

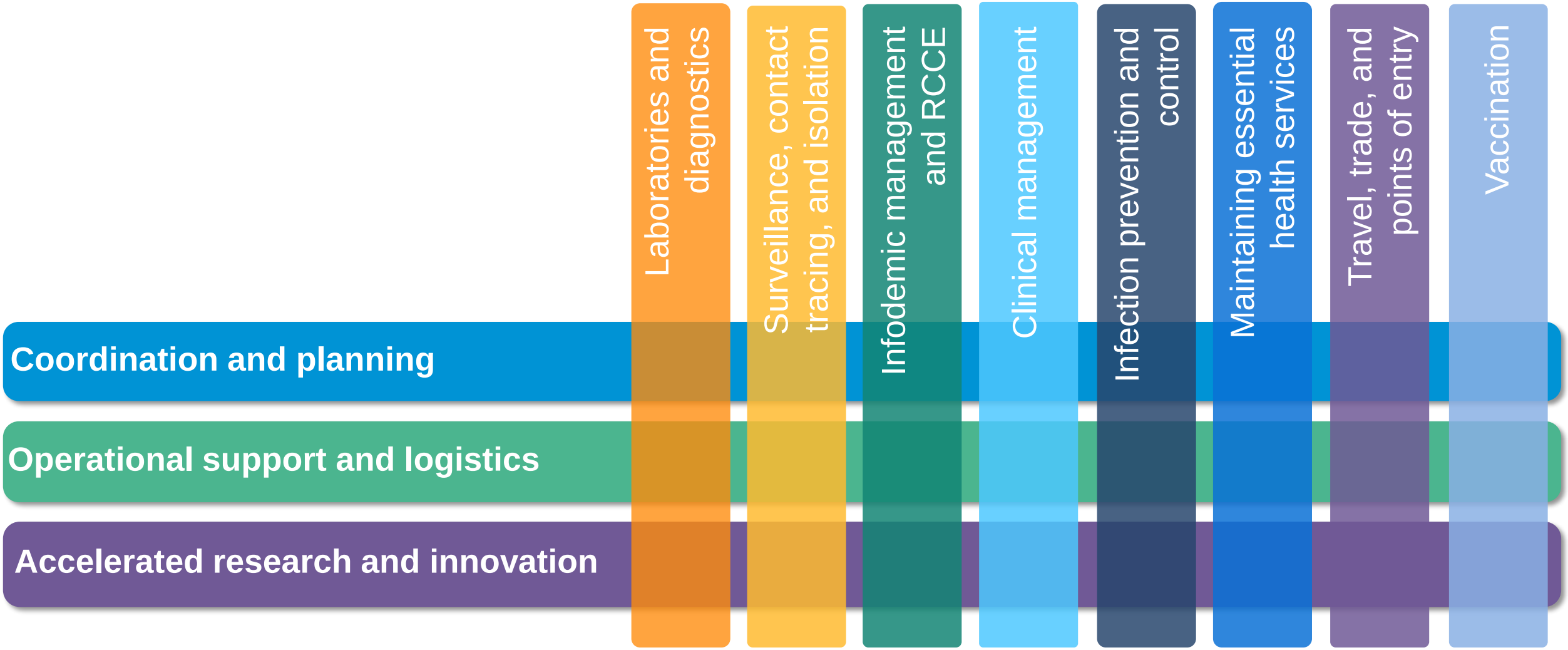
US$ 1.5 billion raised by WHO during 2020
US$ 1.3 billion projected utilization for 2020 SPRP

US$ 240 million raised by the COVID-19 Solidarity Response Fund

US$1 billion on country support and regional coordination

World Health Organization

# WHO GLOBAL STRATEGY FOR COVID-19 - 2021




World Health Organization

# TRANSLATING EVIDENCE INTO KNOWLEDGE AND ACTION


**Translating technical knowledge…**

**…into coordinated action**

World Health Organization

# KNOWLEDGE–ACTION: DYNAMIC ADAPTIVE SYSTEM

## Leverage evidence and expertise

- Expert networks
- Collaborating centres
- Strategic advisory groups
- Massive online consultations/meetings
- R&D Blueprint for Epidemics
- Multi country studies/trials (Solidarity, Unity)

## Authoritative, accessible guidance

- Rapid, constantly re-evaluated
- Multi-disciplinary
- Multi-lingual
- Multi-agency
- Adapted to different contexts
- Content shared through multiple channels

## Implementation

- Digital transformation of knowledge into learning using innovative training platform: OpenWHO
- 150+ Country Offices and six regional platforms provide tailored operational and technical support
- Multi-agency Operational platforms surge people and material resources (UN supply chain; EMTs; GOARN, TECHNE)

## Monitoring and Learning

- KPI driven Monitoring & Evaluation (M&E)
- Country case studies and reports
- Targeted operational research
- Infodemic monitoring and engagement
- Inter-action reviews (IARs) and SimEx support
- Regional Consultations and engagement with COs and MS

World Health Organization

# COVID-19 PARTNERS PLATFORM TO SUPPORT RESPONSE

Country-centered readiness and response with global coordination – an example of solidarity.

## Planning and monitoring

Collaborative planning and tracking of activities based on current guidance

**144** **Countries** have administrative users on PP including 119 countries uploaded national plans and 106 countries used the **action checklists**

## Dynamic costing

Transparent sharing of resource needs when funds not available in-country

**90** Countries have shared **resource needs** across representing US$9.3 billion

## Visibility

Providing visibility of donor funding committed to the response

**77** Donors have responded with contributions worth US$15.4 billion

## Requesting supplies

Facilitating the request of critical supplies through the Supply Portal

**90+** Countries are using the **Supply Portal**

World Health Organization

# COORDINATION AND PLANNING: A UNITED UN


UN CMT comprised of 23 UN entities

Nine work streams

Three complementary strategies: SPRP; Socio-economic Framework; GHRP covering 63 countries

Integrated operational platforms drive efficiency and delivery at national level

World Health Organization

# LOOKING AHEAD – STAY THE COURSE

We collectively know much more now than one year ago. We have developed operational and scientific solutions but we have not yet applied that knowledge and those solutions comprehensively or evenly

In 2021 we must redouble our efforts to suppress transmission, protect the vulnerable and save lives in a comprehensive coordinated and equitable way

**Epidemiological Situation**: Dynamic and uneven, further complicated by variants of concern; however, many countries continue to suppress transmission

**Health Care Systems and Workers**: have saved countless lives but are under extreme pressure in many countries in terms of capacity, workforce and supplies

**Surveillance Systems**: finding it hard to cope with high force of infection. Case and cluster investigation, contact tracing and supported quarantine of contacts remain underpowered

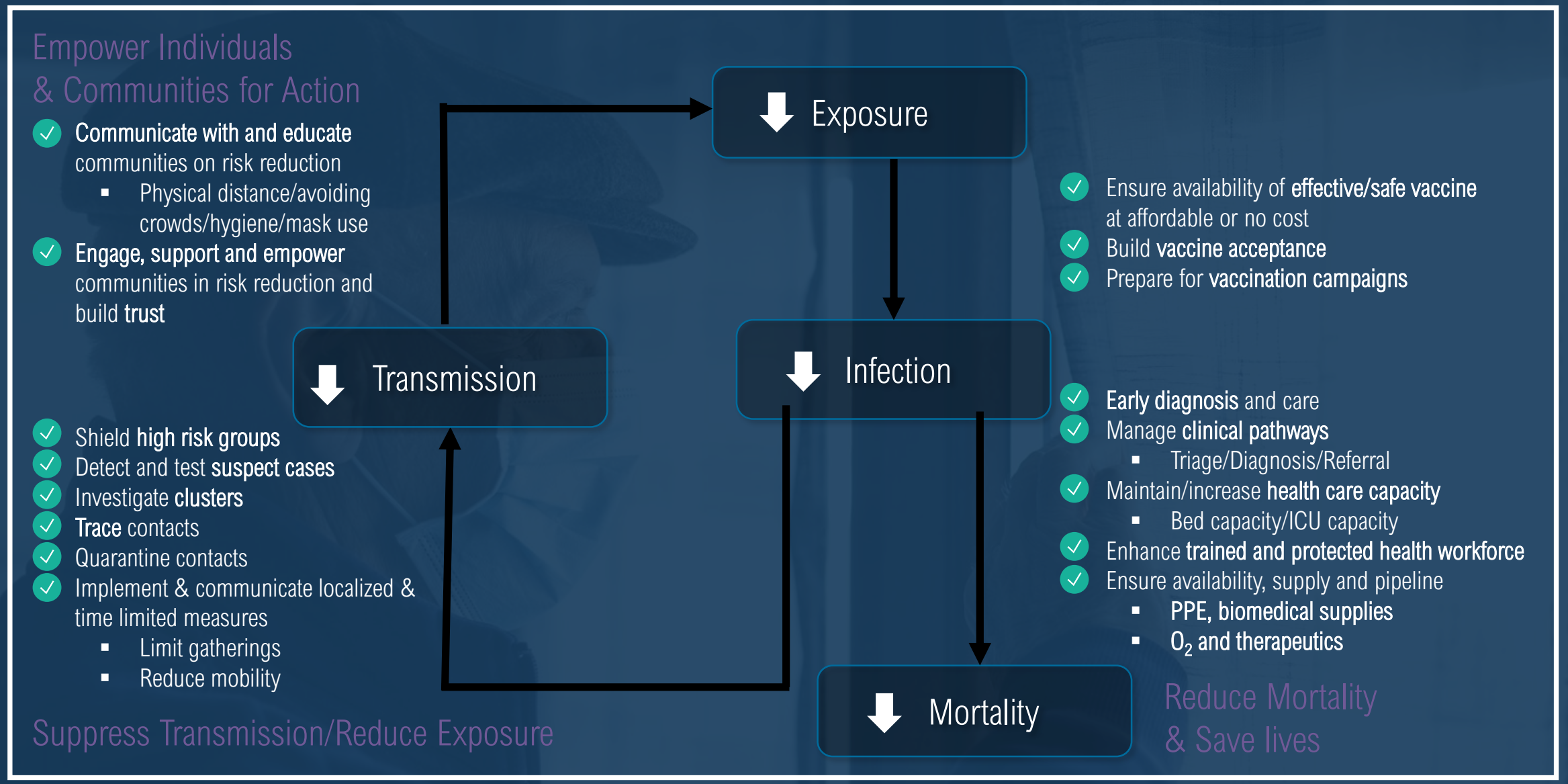
**Communities**: Are suffering and struggling to maintain Public Health and Social Measures as well as suffering loss in social cohesion, education, income and security

**Infodemic**: Empowered communities have played a key role in the control of COVID-19, although misinformation and disinformation continue to undermine the application of an evidence-based response and individual behaviour

**Science**: Has delivered on solutions and these are being scaled up and strong mechanisms exist for equitable delivery (e.g. COVAX). However in some cases demand and utilization is suboptimal (e.g. RDTs), and equity is under threat.

World Health Organization

**Governance** **Policy** **Coordination** **Financing**




**Data** **Research** **Strategy** **Access**

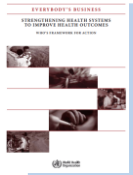
# LOOKING AHEAD – COMPREHENSIVE AND INTEGRATED STRATEGIES


**PREPARE :: EMPOWER :: RESPOND**

continue to strengthen preparedness, readiness and response capacities to COVID based on the 9 SPRP pillars


**ACCELERATE ACCESS TO TOOLS**

accelerate the development and access to safe and effective tools, and ensure fair distribution globally



**STRENGTHEN HEALTH SYSTEMS**

strengthen health systems to implement tools and ensure essential health services are accessible to all

## IN THE CONTEXT OF


**ADAPT**

build into to the GPW 13


**INTEGRATE**

shape broader humanitarian development and recovery programmes

- ✓ *PREPARE*
- ✓ *EMPOWER*
- ✓ *RESPOND*
- ✓ *ACCELERATE*
- ✓ *STRENGTHEN*
- ✓ *ADAPT*
- ✓ *INTEGRATE*

World Health Organization


World Health Organization

# Thank You