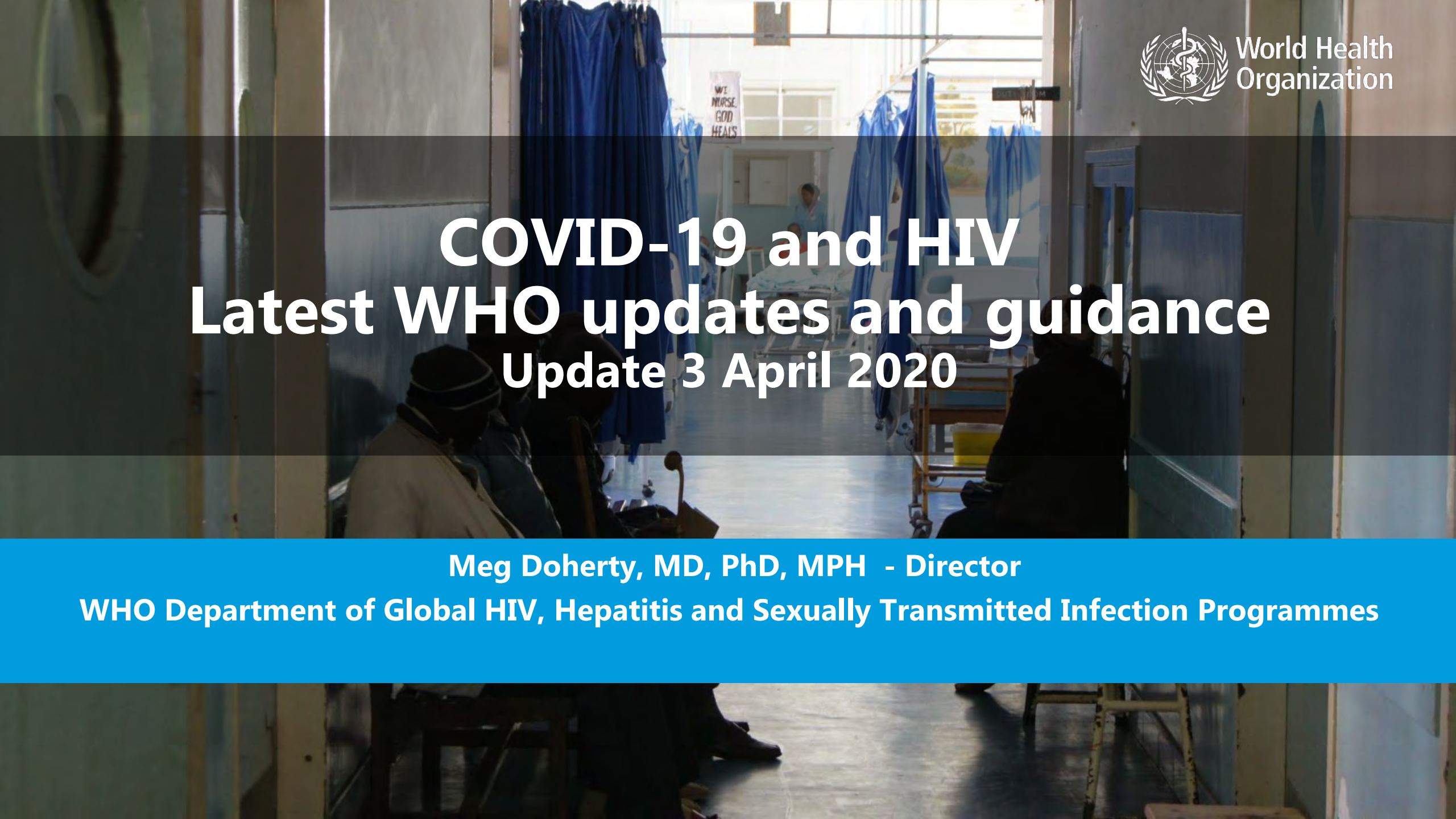


World Health Organization

COVID-19 and HIV
Latest WHO updates and guidance
Update 3 April 2020

Meg Doherty, MD, PhD, MPH - Director

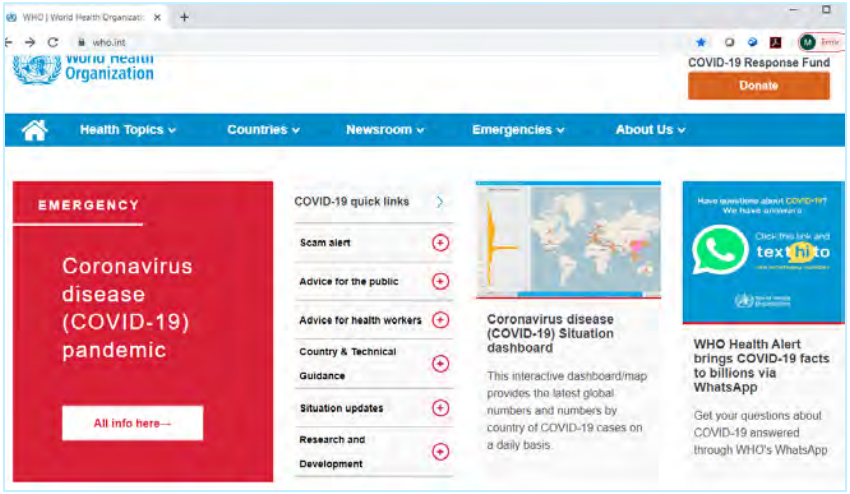
WHO Department of Global HIV, Hepatitis and Sexually Transmitted Infection Programmes

Recapping the last 3 months as we start month 4 ….

World Health Organization

- A pneumonia of unknown cause detected in Wuhan, China was first reported to the WHO Country Office in China on 31 December 2019
- WHO is working 24/7 to analyze data, provide advice, coordinate with partners, help countries prepare, increase supplies and manage expert networks
- The outbreak was declared a Public Health Emergency of International Concern on 30 January 2020
- On 11 February 2020, WHO announced a name for the new coronavirus disease: COVID-19
- **By 2 April 2020, more than 900 306 confirmed cases reported and 45 692 deaths in 205 countries**

Sharing real-time updates and technical advice:
www.who.int
And guidance documents:
https://www.who.int/emergencies/diseases/novel-coronavirus-2019



Countries, areas or territories with COVID-19 cases reported in the last 7 days

(From 27 March 2020, 10:00AM to 02 April 2020, 10:00AM (CET))

World Health Organization

[1] All references to Kosovo in this document should be understood to be in the context of the United Nations Security Council resolution 1244 (1999).

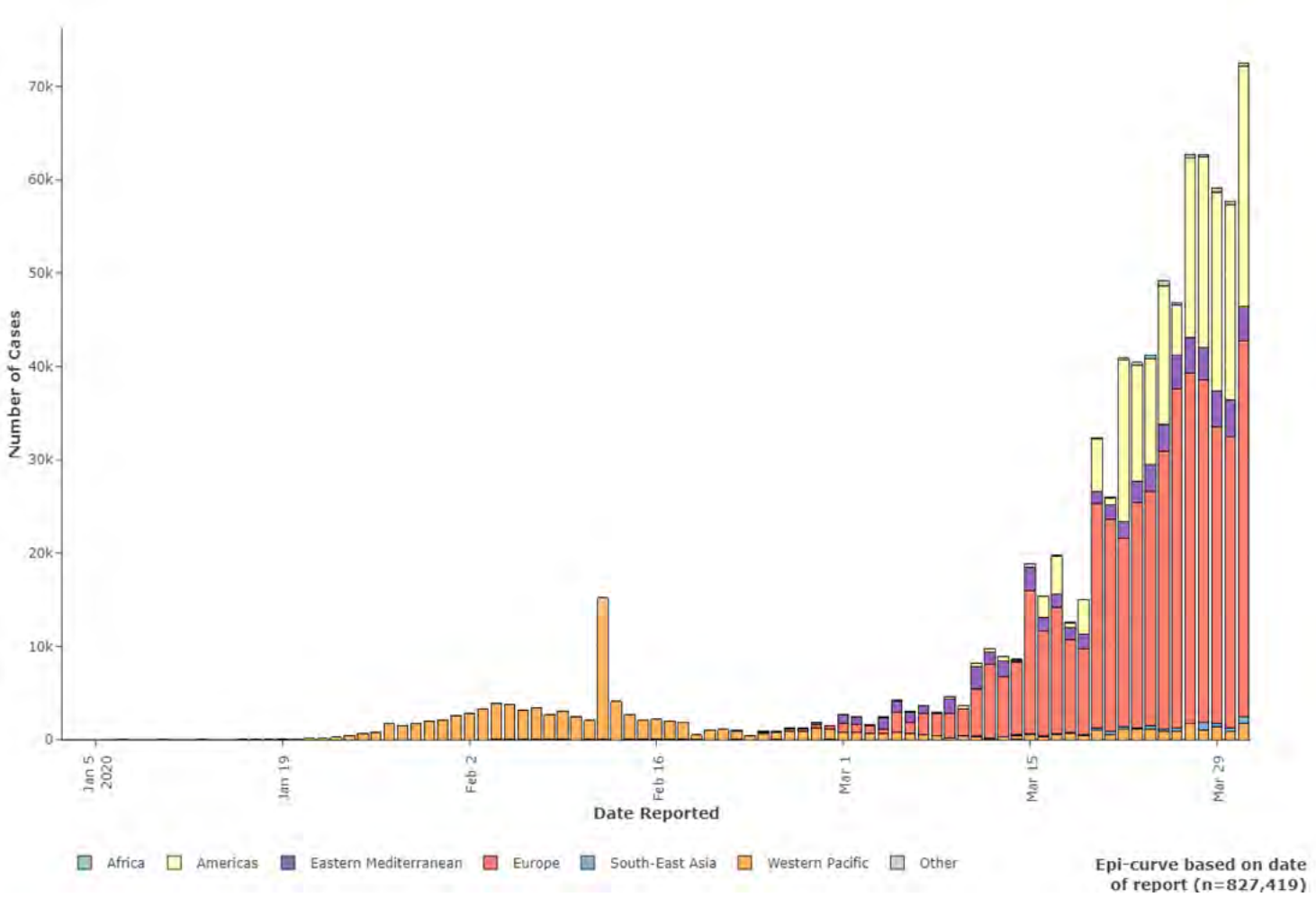
Number of cases of Serbia and Kosovo (UNSCR 1244, 1999) have been aggregated for visualization purposes.

Data Source. *World Health Organization*
Map Production. *WHO Health Emergencies Programme*

Not applicable

0 2,500 5,000 km

Current Situation (As of 01 Apr, 18H Geneva Time)



Between 31 Dec 2019 - 01 Apr 2020

- **827,419 cases** from 205 countries/states/territories and 1 international conveyance
- **40,777 deaths** from 127 countries/states/territories and 1 international conveyance

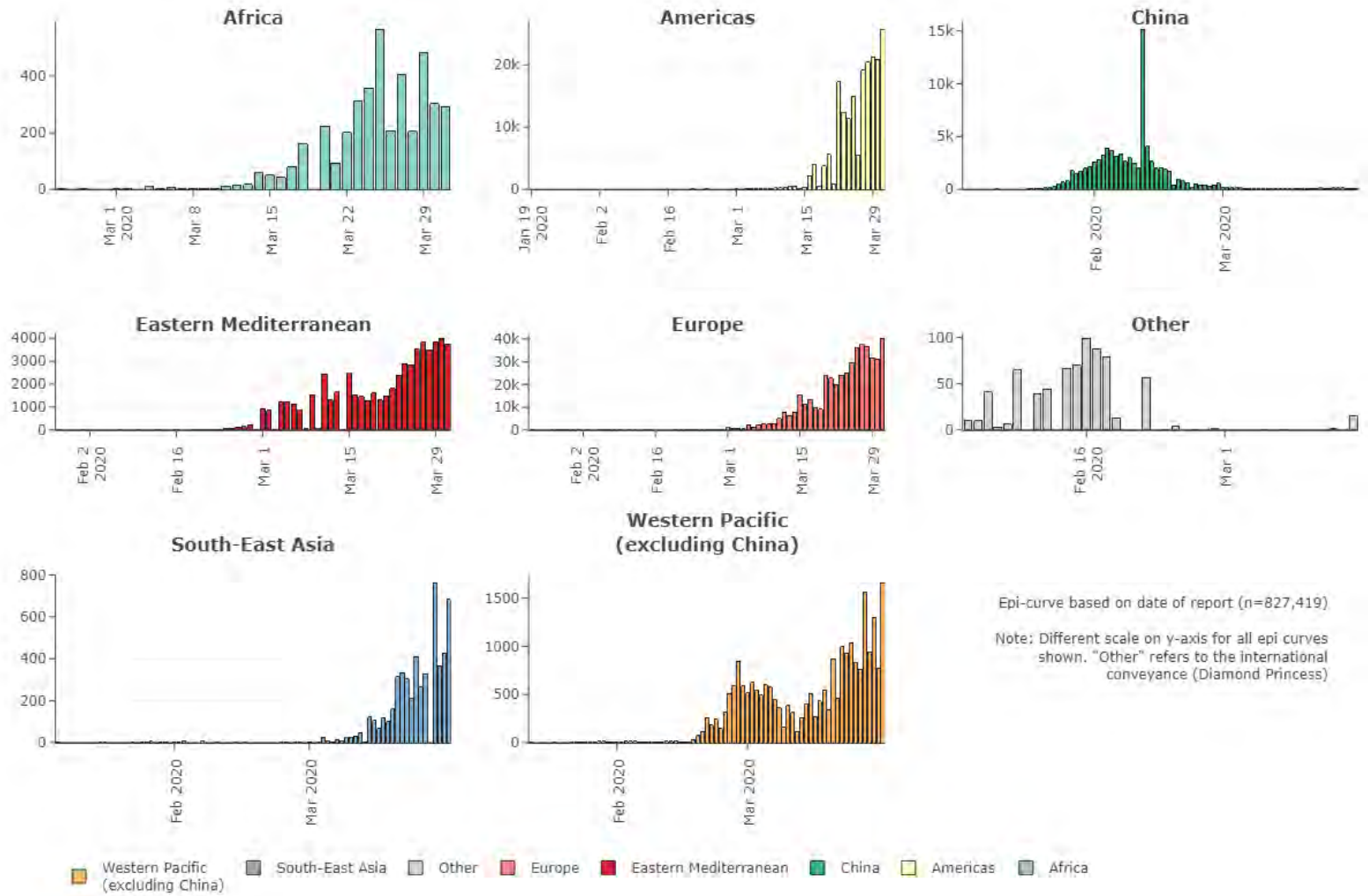
10 countries with highest number of cumulative cases:

- **United States of America (163199)**
- **Italy (105792)**
- **Spain (94417)**
- China (82638)
- **Germany (67366)**
- **France (51477)**
- **Iran (Islamic Republic of) (47593)**
- **The United Kingdom (25154)**
- Switzerland (16108)
- **Turkey (13531)**

10 countries with most reported number of cases in past 24 hours:

- **United States of America (22559)**
- **Spain (9222)**
- **France (7500)**
- **Germany (5453)**
- **Italy (4053)**
- **The United Kingdom (3009)**
- **Iran (Islamic Republic of) (2987)**
- **Turkey (2704)**
- Canada (1378)
- Portugal (1035)

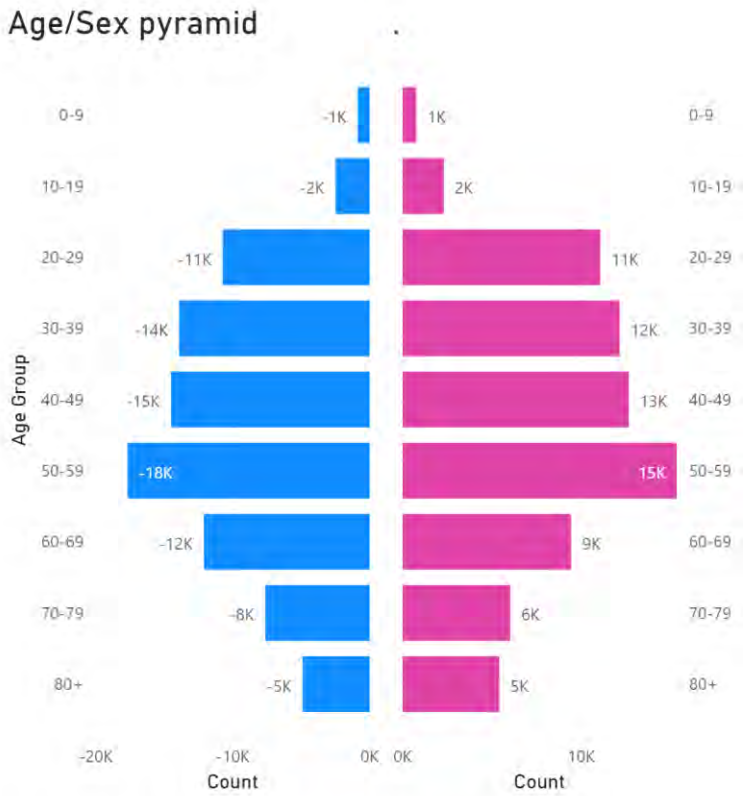
Number of confirmed cases notified under IHR or from official government sources by WHO region, for China, and International Conveyance (Diamond Princess) as of 01 Apr 18H



World Health Organization

HEALTH EMERGENCIES programme

Total # of cases with sex and age information (n=159 504)

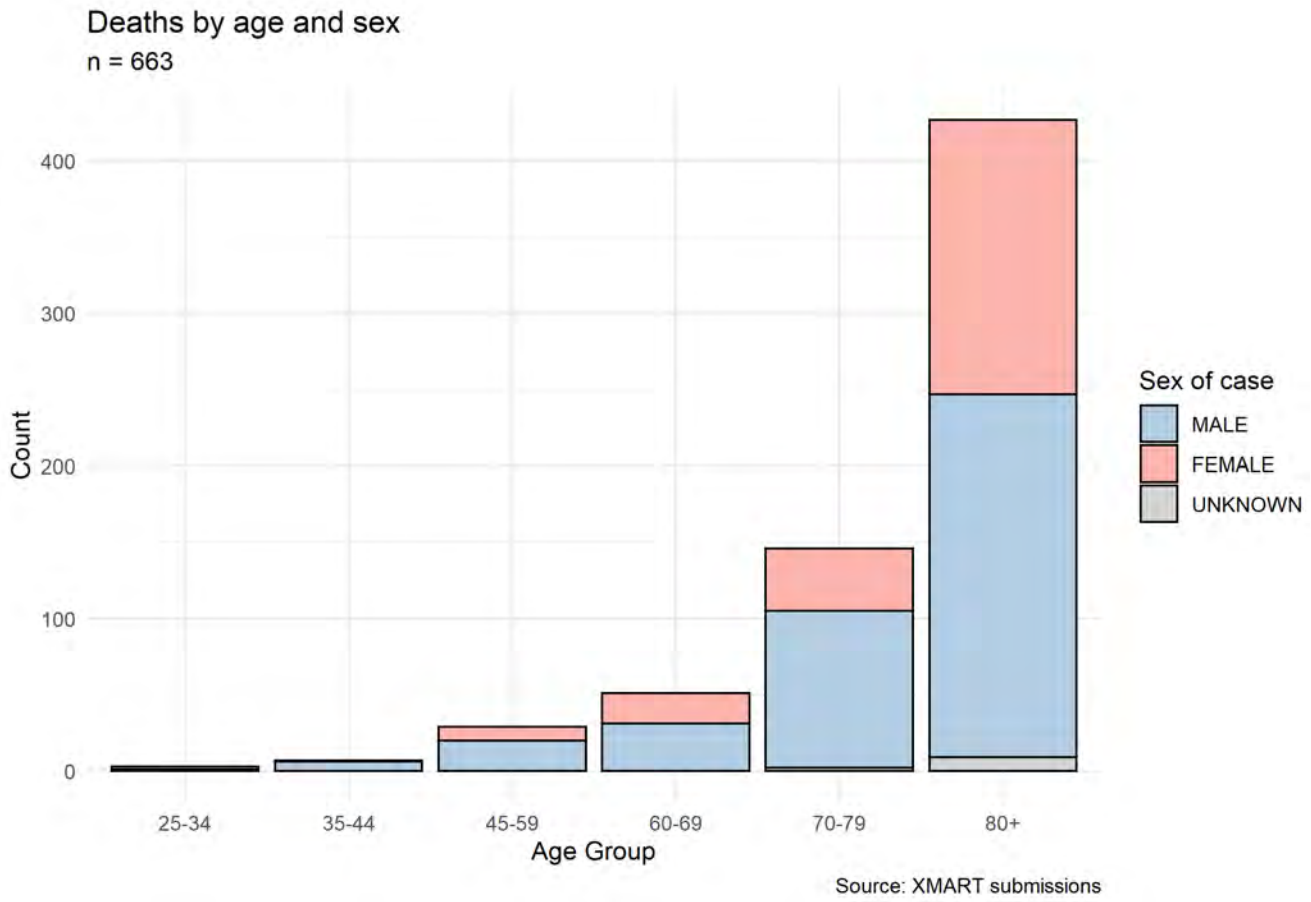


Data cleaning are ongoing and a work in progress, please interpret with caution

Sex	Percentage
Female	47%
Male	52%
Unknown	1%

Age	Percentage
0-9	1.0%
10-19	2.9%
20-29	13.4%
30-39	16.2%
40-49	17.0%
50-59	20.7%
60-69	13.5%
70-79	8.6%
80 +	6.6%

Total # of recorded deaths by sex and age group



Female: 253 (38.1%)
Male: 499 (60.2 %)

Note: Most death reports are from EURO Member States

Global COVID-19 Strategy (as of 17 March – Strategy being updated)

Goal

- To save lives, minimize disruption of societies, and protect economies

The Four Things that Every Country Must Do

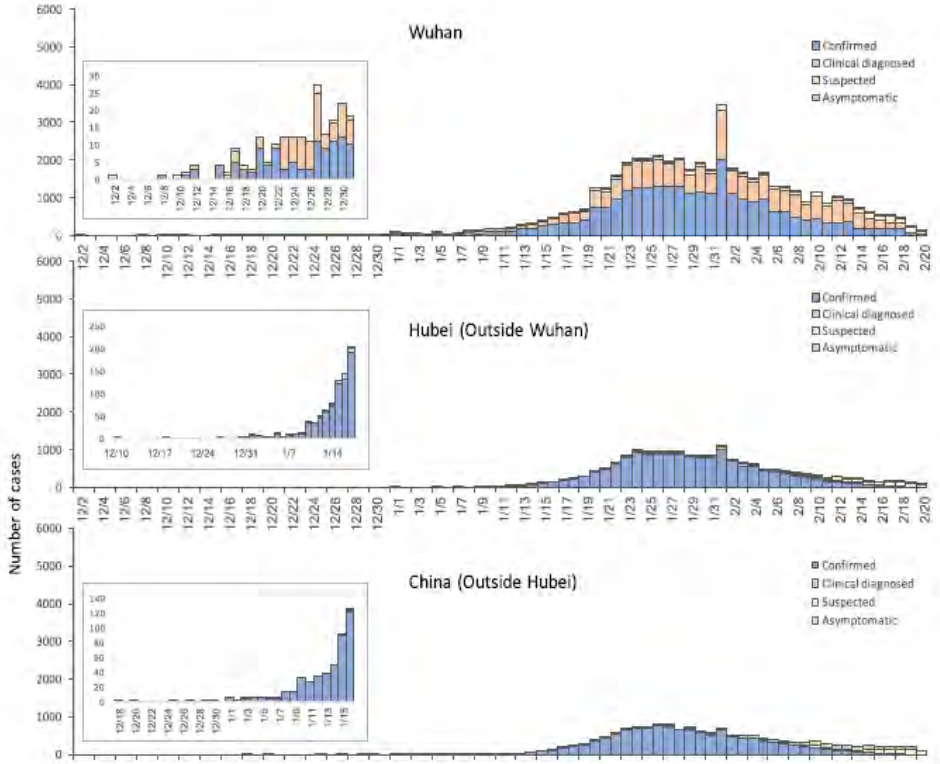
- Prepare and Be Ready
- Detect, Protect & Treat
- Reduce and Suppress Transmission
- Learn, Innovate, Improve and Improve

WHO has defined four transmission scenarios 4Cs for COVID-19:

1. Countries with no cases (No cases);
2. Countries with 1 or more cases, imported or locally detected (Sporadic cases);
3. Countries experiencing cases clusters in time, geographic location and/or common exposure (Clusters of cases);
4. Countries experiencing larger outbreaks of local transmission (Community transmission).

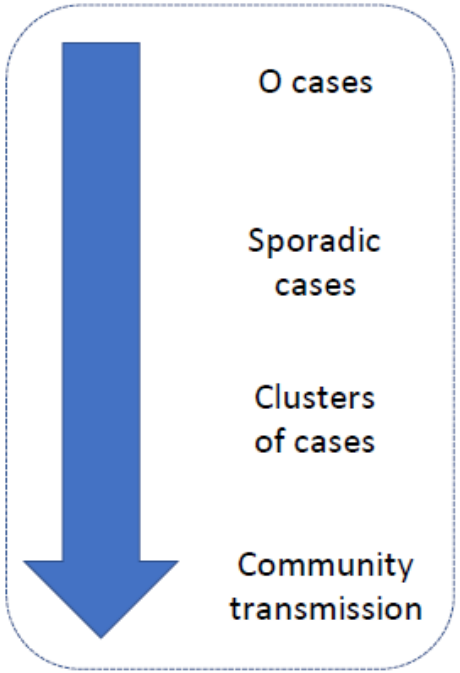
What we can learn from the China response

China's differentiated approach averted 100,000s of cases



China is using fundamental public health measures…

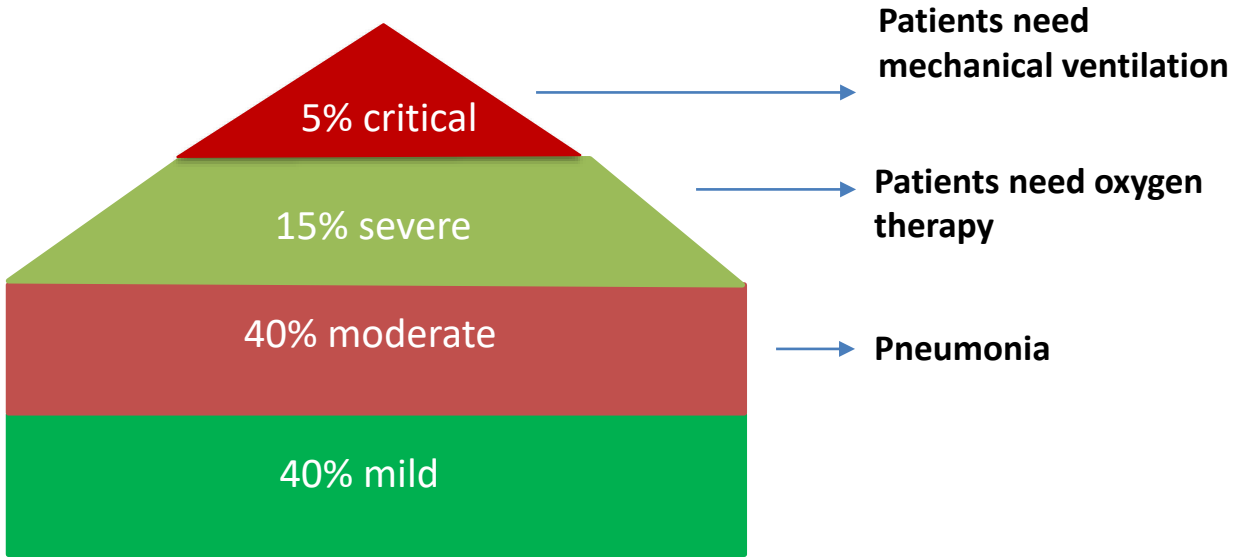
- Universal population measures
- Case isolation & management
- Close contact quarantine
- Suspension of public gatherings
- Movement restrictions



World Health Organization

Severity profile of COVID-19

3 April, 2020



There are little data from populations with high prevalence of HIV, malnutrition etc.

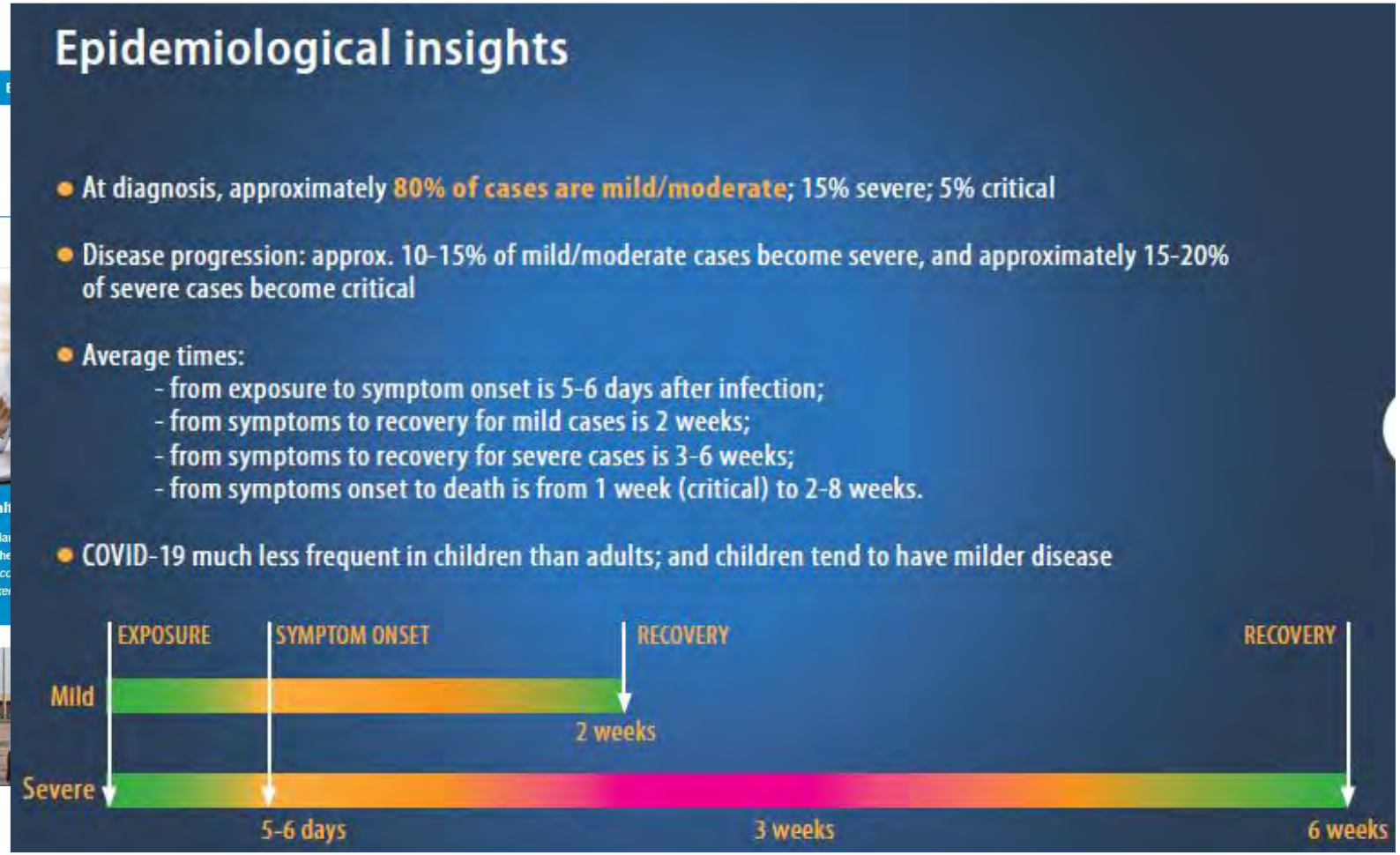
Hypothetical estimate of numbers requiring hospitalization based on current size of outbreak:

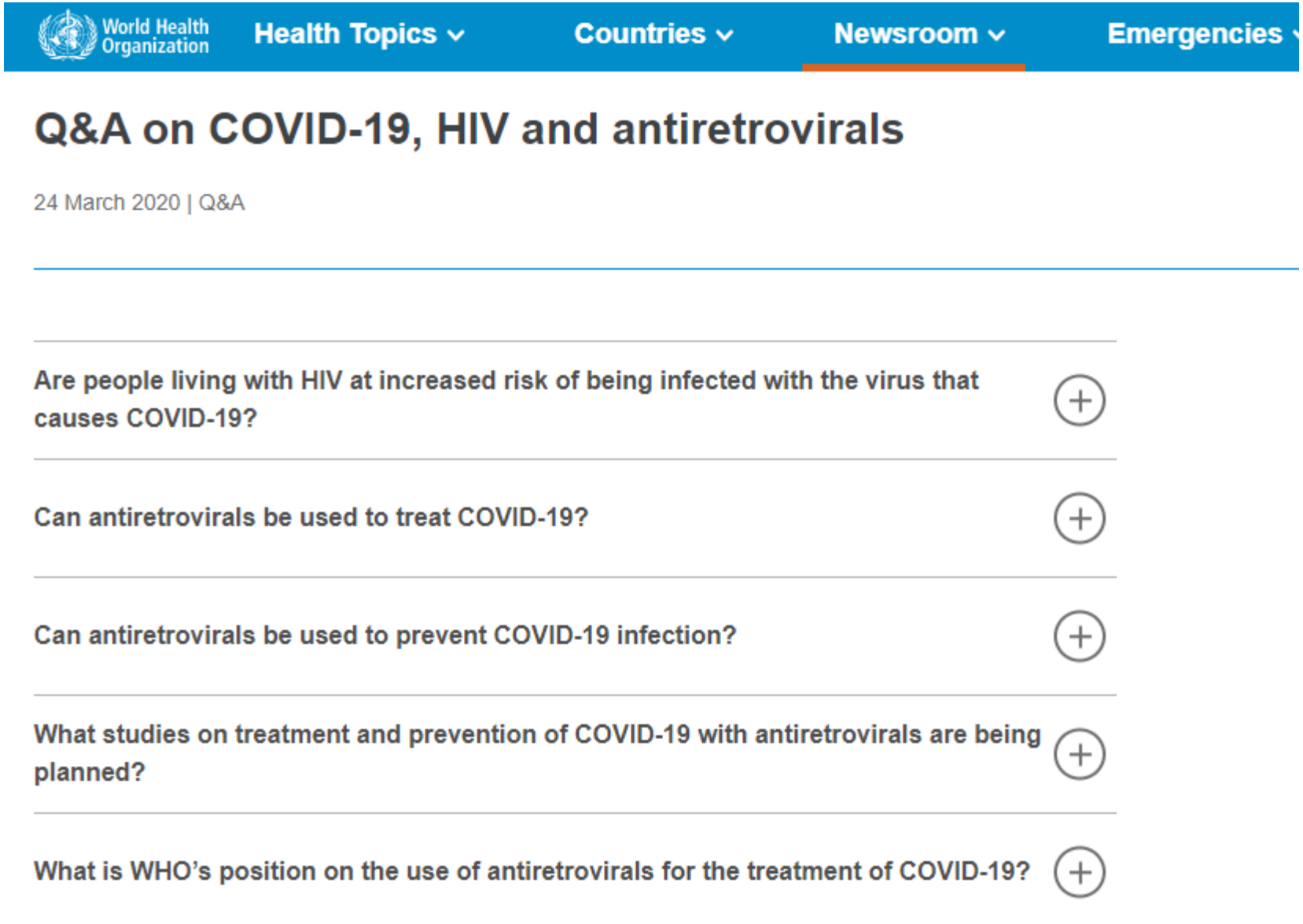
Country	Number of reported cases	20% (# people requiring oxygen & ventilation)
Italy	27,980	5,596
Iran	14,991	2,998
Spain	9,942	1.988
Republic of Korea	8,320	1,664
Germany	7,272	1,454

Based on the following assumption: all severe (15%) and critical cases (5%) require hospitalization.
These numbers represent the current situation (as of 17.03.2020) which will change as more cases are confirmed.

EPI-WIN

https://www.who.int/teams/risk-communication





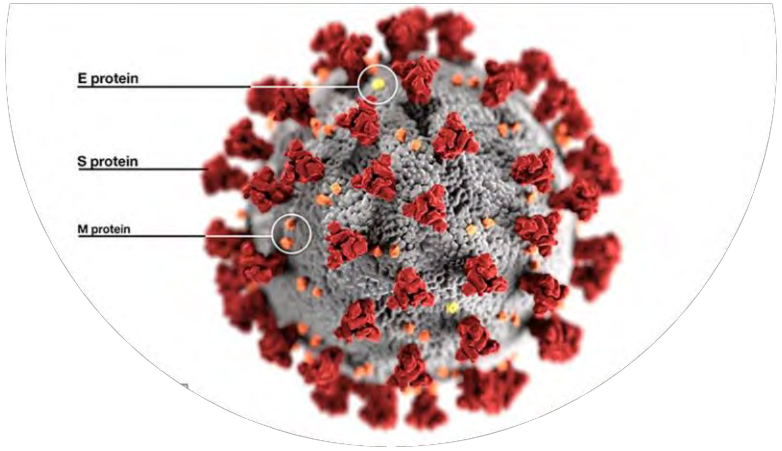
World Health Organization

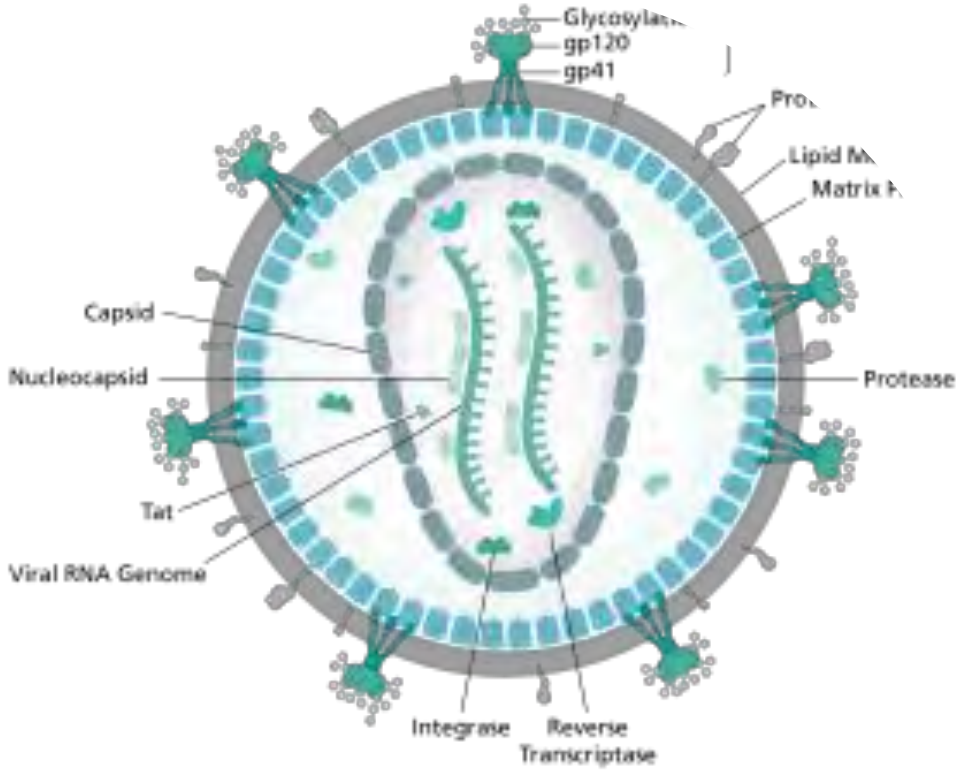
World Health Organization

https://www.who.int/news-room/q-a-detail/q-a-on-covid-19-hiv-and-antiretrovirals

COVID-19 and HIV

World Health Organization





- Patients with severe immunodeficiency usually have high risk of complications with any infectious disease
- Six reports of HIV-CoVs co-infections **(HIV/SARS - Wong, 2004; HIV/MERS - Salahoub, 2015; HIV/COVID19 - Zhu, 2020; Guo, 2020; Joob, 2020)**
- Mild moderate CoV disease despite severe immunodeficiency – all cases recovered
- PLHIV low CD4 & COVID similar outcomes to non-PLHIV **(Guo, 2020**)
- Defective cellular immunity in HIV infection could paradoxically be a protective factor?
- Potential therapeutic role of HIV protease inhibitors?
- Lack of SARS in AIDS patients hospitalized together **(Chan, 2003)**
- None of 19 PLHIV hospitalized at the same ward with SARS patients in a hospital in China got infected, despite many HCWs caring both groups got SARS-CoV - due to Protective effect of ARVs?

HIV/AIDS VIEWPOINTS

Consideration of Highly Active Antiretroviral Therapy in the Prevention and Treatment of Severe Acute Respiratory Syndrome

LETTERS TO THE EDITOR

Lack of Severe Acute Respiratory Syndrome in 19 AIDS Patients Hospitalized Together

cal files of each HIV-infected/AIDS patient for information regarding ward distribution, ventilation, isolation measures, $CD4^+$ T cell counts, opportunistic infections, and treatment regimens, including highly active antiretroviral therapy. correct diagnosis was established. Of the 19 AIDS patients, 15 stayed for >1 month with SARS patients on the same floor during the period of investigation. All AIDS patients had opportunistic infections, and most had very low

Journal of Hospital Infection 101 (2019) 42—46

Available online at www.sciencedirect.com

Journal of Hospital Infection

journal homepage: www.elsevier.com/locate/jhin

ELSEVIER

Healthcare Infection Society

Short report

Post-exposure prophylaxis for Middle East respiratory syndrome in healthcare workers

S.Y. Park[a], J.S.
Y.S. Joo[f], J.S.

JAMA | Original Investigation

Epidemiologic Features and Clinical Course of Patients Infected With SARS-CoV-2 in Singapore

Barnaby Edward Young, MB, BChir; Sean Wei Xiang Ong, MBBS; Shirin Kalimuddin, MPH; Jenny G. Low, MPH; Seow Yen Tan, MBBS; Jiashen Loh, MBBS; Oon-Tek Ng, MPH; Kalisvar Marimuthu, MBBS; Li Wei Ang, Msc; Tze Minn Mak, PhD; Sok Kiang Lau, PhD; Danielle E. Anderson, PhD; Kian Sing Chan, MBBS; Thean Yen Tan, MBBCh; Tong Yong Ng, MBBS; Lin Cui, PhD; Zubaidah Said, MSc; Lalitha Kurupatham, MPH; Mark I-Cheng Chen, PhD; Monica Chan, BMBS; Shawn Vasoo, MBBS; Lin-Fa Wang, PhD; Boon Huan Tan, PhD; Raymond Tzer Pin Lin, MBBS; Vernon Jian Ming Lee, PhD; Yee-Sin Leo, MPH; David Chien Lye, MBBS; for the Singapore 2019 Novel Coronavirus Outbreak Research Team

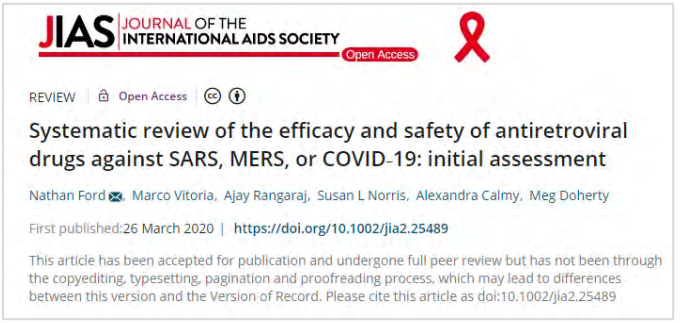
1	☑	Recruiting NEW	Evaluation of Ganovo Combined With Ritonavir in the Treatment of Novel Coronavirus Infection	• 2019-nCoV Pneumonia	• Drug: Ganovo+ritonavir with or without interferon atomization • Drug: Pegasys • Drug: Novaferon atomization • (and 2 more...)
2	☑	Recruiting NEW	Lopinavir/ Ritonavir, Ribavirin and	• Novel	• Drug:
3	☑	Not yet recruiting NEW			
4	☑	Not yet recruiting NEW	A Prospective,Randomized Controlled Clinical Study of Antiviral Therapy in the 2019-nCoV Pneumonia	• 2019-nCoV	• Drug: Abidol hydrochloride • Drug: Oseltamivir • Drug: Lopinavir/ritonavir

25 registered trials

19 for LPV/r
1 LPV
1 Rit
1 DRV/COB
1 TAFI

World Health Organization

Efficacy and safety of ARVs for the treatment and prevention of SARS, MERS or COVID-19



Use of ARV as treatment for CoV infections

- 22 observational studies on the use of ARV drugs (most studies using **LPV/r** as treatment).
  - 20 studies reporting treatment outcomes, 3 studies with SARS, 6 studies with MERS,11 studies with COVID-19
- Of 227 patients given LPV/r, 2 deaths were reported by 22 obs studies. Timing, duration and dose of treatment varied, and several studies provided co-interventions
- The certainty of the evidence is low across all 3 diseases: Small sample size , only two studies provided comparative outcomes (one using historical controls) and none were randomized.
- 1 RCT: patients with severe COVID-19 receive LPV/r (400mg/100mg twice a day) vs SoC for 14 days: 28 day mortality was numerically lower in the LPV/r group (14/99) compared to the control group (25/100) but this difference was not statistically significant.

Use of ARV as Prevention (PEP) for CoV infections

- 2 studies reported a possible protective effect of LPV/r as post-exposure prophylaxis (SARS and MERS). The certainty of the evidence was very low due to uncertainty and limited sample size.

25 registered trials planning to assess the safety and efficacy of ARVs for the treatment of coronavirus infection (23 for the treatment of COVID-19).

- 19 assessing LPV/r, 1 assessing upboosted LPV, 1 assessing ritonavir, 1 darunavir and cobicistat, 1 assessing TAF

World Health Organization

LPV/r in patients with severe COVID-19

World Health Organization

ORIGINAL ARTICLE

A Trial of Lopinavir–Ritonavir in Adults Hospitalized with Severe Covid-19

B. Cao, Y. Wang, D. Wen, W. Liu, Jingli Wang, G. Fan, L. Ruan, B. Song, Y. Cai, M. Wei, X. Li, J. Xia, N. Chen, J. Xiang, T. Yu, T. Bai, X. Xie, L. Zhang, C. Li, Y. Yuan, H. Chen, Huadong Li, H. Huang, S. Tu, F. Gong, Y. Liu, Y. Wei, C. Dong, F. Zhou, X. Gu, J. Xu, Z. Liu, Y. Zhang, Hui Li, L. Shang, K. Wang, K. Li, X. Zhou, X. Dong, Z. Qu, S. Lu, X. Hu, S. Ruan, S. Luo, J. Wu, L. Peng, F. Cheng, L. Pan,

Table 3. Outcomes in the Intention-to-Treat Population.*

Characteristic	Total (N=199)	Lopinavir–Ritonavir (N=99)	Standard Care (N=100)	Difference†
Time to clinical improvement — median no. of days (IQR)	16.0 (15.0 to 17.0)	16.0 (13.0 to 17.0)	16.0 (15.0 to 18.0)	1.31 (0.95 to 1.80)‡
Day 28 mortality — no. (%)	44 (22.1)	19 (19.2)§	25 (25.0)	−5.8 (−17.3 to 5.7)
Earlier (≤12 days after onset of symptoms)	21 (23.3)	8 (19.0)	13 (27.1)	−8.0 (−25.3 to 9.3)
Later (>12 days after onset of symptoms)	23 (21.1)	11 (19.3)	12 (23.1)	−3.8 (−19.1 to 11.6)
Clinical improvement — no. (%)				
Day 7	8 (4.0)	6 (6.1)	2 (2.0)	4.1 (−1.4 to 9.5)
Day 14	75 (37.7)	45 (45.5)	30 (30.0)	15.5 (2.2 to 28.8)
Day 28	148 (74.4)	78 (78.8)	70 (70.0)	8.8 (−3.3 to 20.9)
ICU length of stay — median no. of days (IQR)	10 (5 to 14)	6 (2 to 11)	11 (7 to 17)	−5 (−9 to 0)
Of survivors	10 (8 to 17)	9 (5 to 44)	11 (9 to 14)	−1 (−16 to 38)
Of nonsurvivors	10 (4 to 14)	6 (2 to 11)	12 (7 to 17)	−6 (−11 to 0)
Duration of invasive mechanical ventilation — median no. of days (IQR)	5 (3 to 9)	4 (3 to 7)	5 (3 to 9)	−1 (−4 to 2)
Oxygen support — days (IQR)	13 (8 to 16)	12 (9 to 16)	13 (6 to 16)	0 (−2 to 2)
Hospital stay — median no. of days (IQR)	15 (12 to 17)	14 (12 to 17)	16 (13 to 18)	1 (0 to 2)
Time from randomization to discharge — median no. of days (IQR)	13 (10 to 16)	12 (10 to 16)	14 (11 to 16)	1 (0 to 3)
Time from randomization to death — median no. of days (IQR)	10 (6 to 15)	9 (6 to 13)	12 (6 to 15)	−3 (−6 to 2)

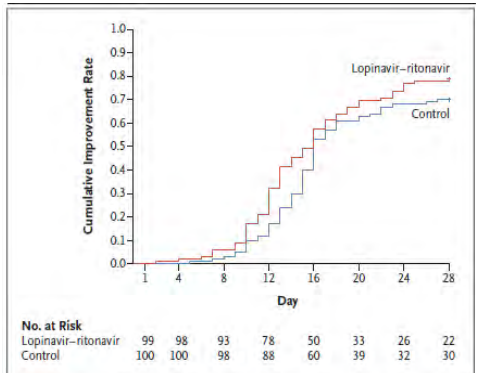


Figure 2. Time to Clinical Improvement in the Intention-to-Treat Population.

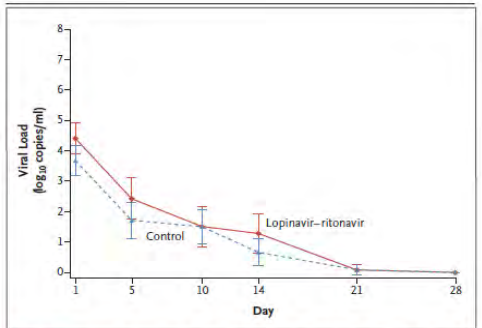


Figure 3. Mean Change from Baseline in SARS-CoV-2 Viral RNA Load by qPCR on Throat Swabs.

I bars indicate 95% confidence intervals. Results less than the lower limit of quantification of polymerase-chain-reaction (PCR) assay and greater than the limit of qualitative detection are imputed with 1 $\log_{10}$ copies per milliliter; results for patients with viral-negative RNA are imputed with 0 $\log_{10}$ copies per milliliter. Among the 199 patients, 130 (59 patients in the lopinavir–ritonavir group and 71 in the standard-care group) had virologic data that were used for viral load calculation, whereas the rest of the patients had undetectable viral RNA on throat swabs over the time.

Key findings:

- **Open label (not blinded) - n= 199**
- **1 hospital in Whuan (China)**
- **time to clinical improvement, 28 day mortality rate and throat viral RNA detectability were similar in both arms**
- **median time to clinical improvement was shorter by 1 day in LPV/r arm (modified ITT)**
- **Gastrointestinal adverse events were more common in LPV/r arm**
- **Continuous follow up planned**

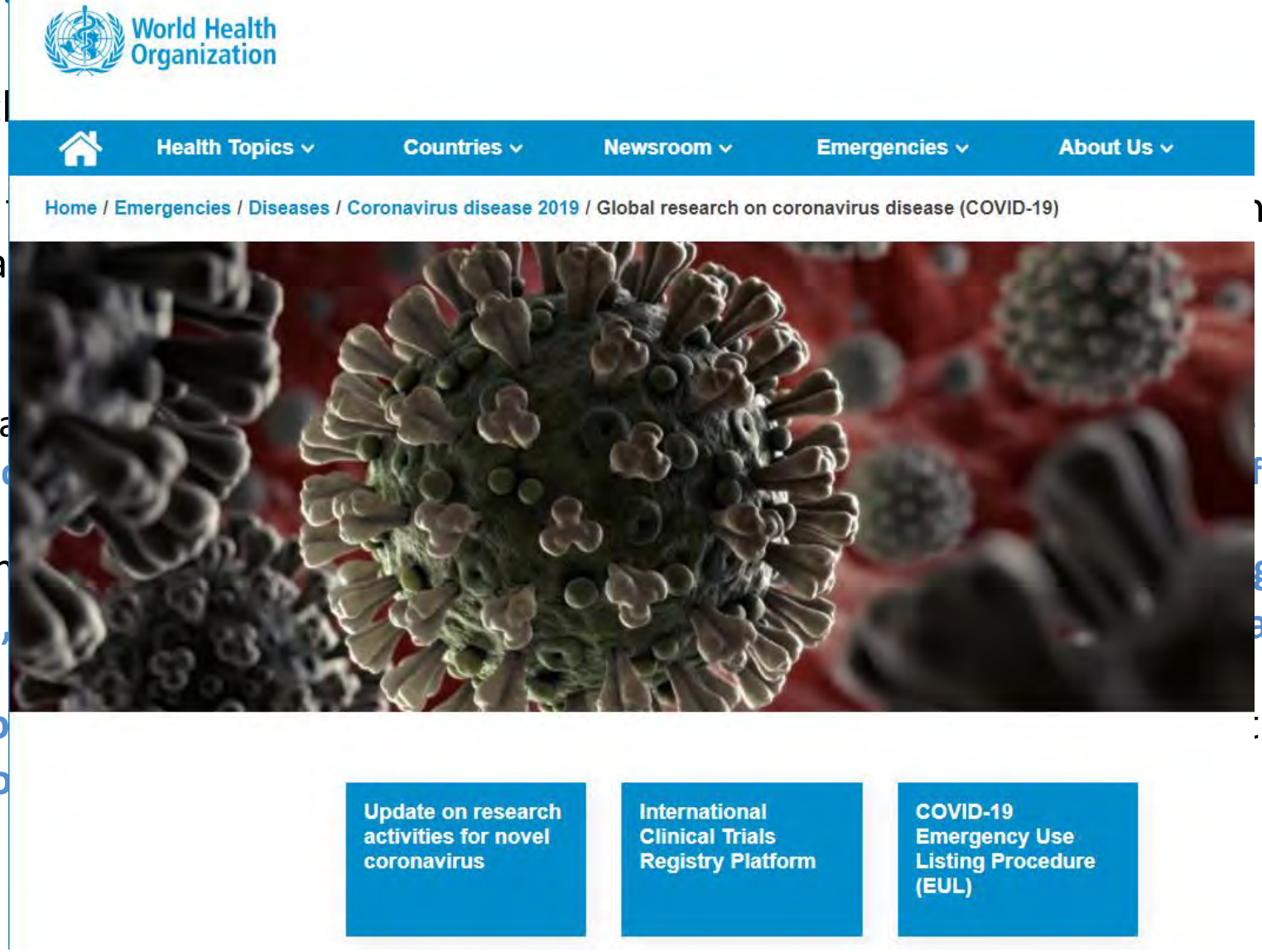
Major Drugs in Clinical Development to treat COVID-19

World Health Organization

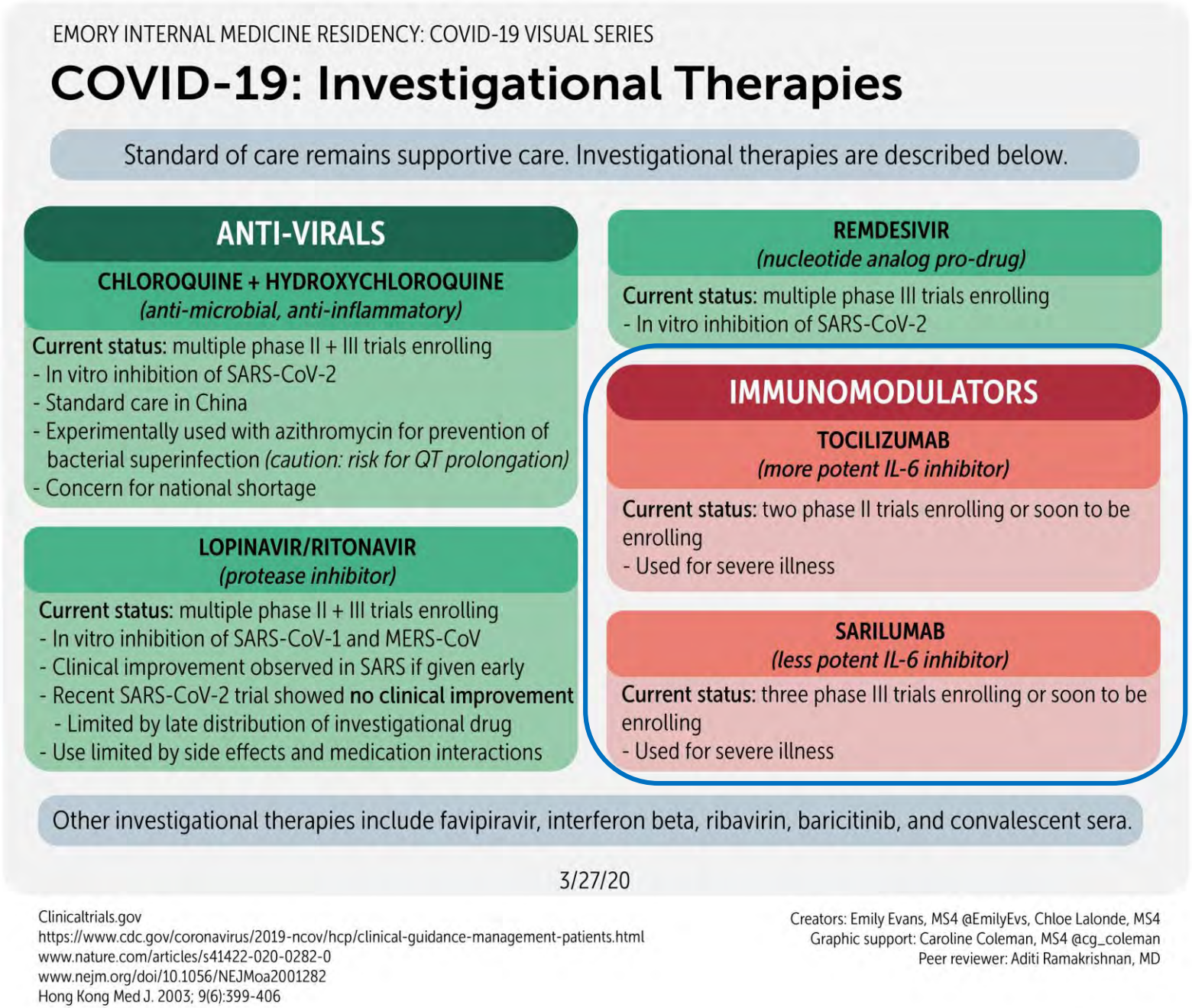
- Remdesivir (GS-75734)
- HIV protease inhibitors (LPV/r, DRV/COBI, ASC09/RTV)
- Cloroquine/Hydroxiclorquine
- Immunomodulators (Interferon–alfa 2b; thymosin-alfa)
- Broad activity antivirals (Umifenovir, Baloxavir marboxil, Favipiravir; Galidesivir)
- Monoclonal antibodies (Camrelizumab, Toclizumab)
- Traditional Chinese medicines

SOLIDARITY Trial

- **WHO launched** tl
- The **SOLIDARITY** ave been overloaded to pa
- The trial entails:
  - an experimenta **and hydroxychloroc feron-beta.**
- Many countries h **gentina, Bahrain, Canada, and.**
- The **COVID-19 So** han **173,000 individuals and o**



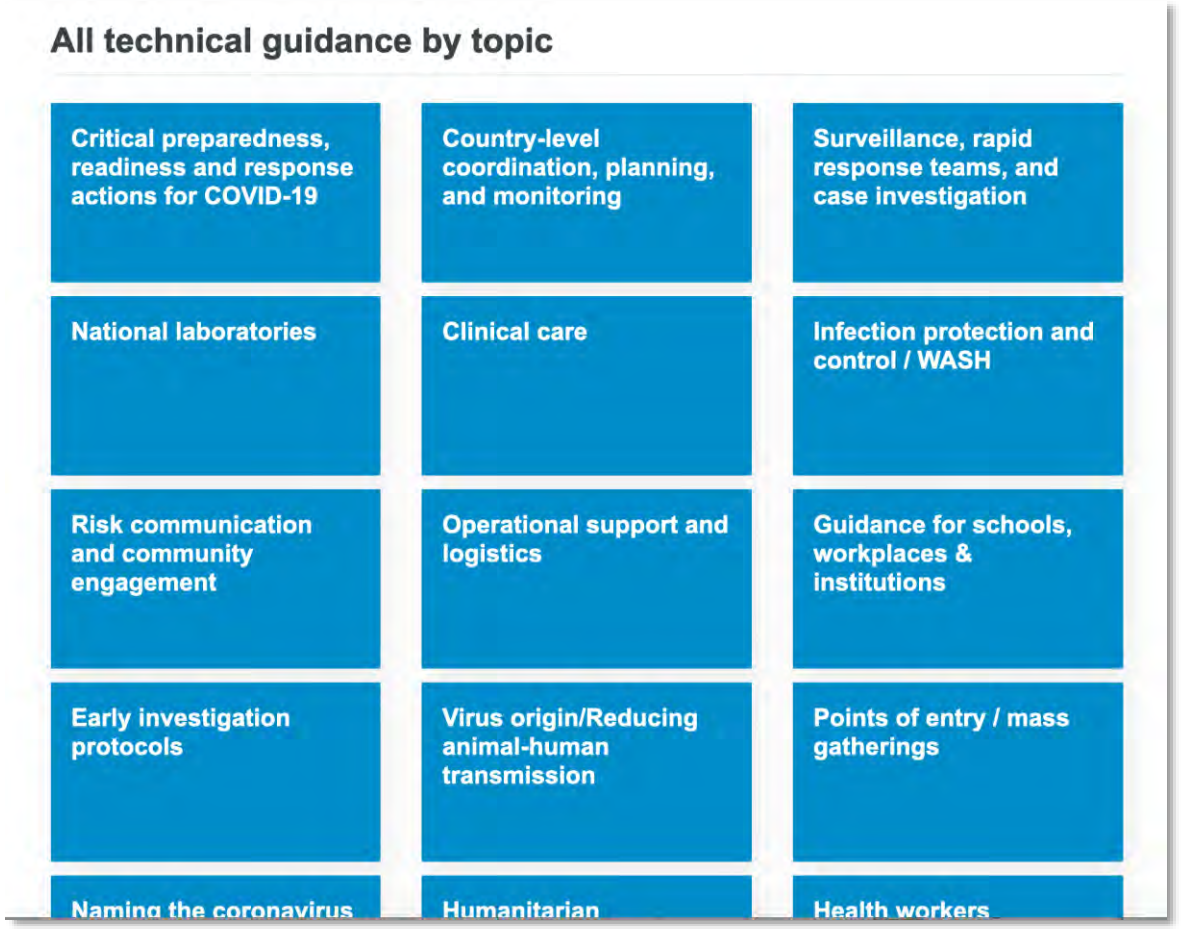
Examples of Clinical Investigational Therapies



World Health Organization

COVID-19 Updates/New technical guidance

- **New Guidance**
  - **Surveillance:** Operational considerations for surveillance of COVID-19 using GISRS
  - **Clinical care:** Severe Acute Respiratory Infections Treatment Centre: Practical manual
  - **Logistics:** Essential Supplies Forecasting Tool
  - **Lab:** Guidance for laboratories shipping specimens to WHO reference laboratories that provide confirmatory testing for COVID-19 virus



https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance

COVID-19 New technical guidance (continued) and Scientific Briefs

Additional new guidance

- Maintaining essential health services
- COVID-19: Operational guidance for maintaining essential health services during an outbreak
- Guiding principles for immunization activities during the COVID-19 pandemic
- Operational considerations for COVID-19 management in the accommodation sector (Hotels)

Scientific Briefs (New technical product)

- Scientific summaries of available evidence on specific topics:
  - Modes of transmission of virus causing COVID-19: implications for IPC precaution recommendations
  - Off-label use of medicines for COVID-19
  - Origin of SARS-CoV-2

Clinical management of severe acute respiratory (SARI) when COVID-19 disease is suspected

Interim guidance
13 March 2020

This is the second edition (version 1.2) of this document, which was originally adapted from Clinical manag acute respiratory infection when MERS-CoV infection is suspected (WHO, 2019).

It is intended for clinicians involved in the care of adult, pregnant, and paediatric patients with or at risk for respiratory infection (SARI) when infection with the COVID-19 virus is suspected. Considerations for paed pregnant women are highlighted throughout the text. It is not meant to replace clinical judgment or specialis rather to strengthen clinical management of these patients and to provide up-to-date guidance. Best practice prevention and control (IPC), triage and optimized supportive care are included.

This document is organized into the following sections:

1. Background
2. Screening and triage: early recognition of patients with SARI associated with COVID-19
3. Immediate implementation of appropriate IPC measures
4. Collection of specimens for laboratory diagnosis
5. Management of mild COVID-19: symptomatic treatment and monitoring
6. Management of severe COVID-19: oxygen therapy and monitoring
7. Management of severe COVID-19: treatment of co-infections
8. Management of critical COVID-19: acute respiratory distress syndrome (ARDS)
9. Management of critical illness and COVID-19: prevention of complications
10. Management of critical illness and COVID-19: septic shock
11. Adjunctive therapies for COVID-19: corticosteroids
12. Caring for pregnant women with COVID-19
13. Caring for infants and mothers with COVID-19: IPC and breastfeeding
14. Care for older persons with COVID-19
15. Clinical research and specific anti-COVID-19 treatments

Appendix: resources for supporting management of SARI in children

These symbols are used to flag interventions:

- Do: the intervention is beneficial (strong recommendation) **OR** the intervention is a best practice stat
- Don't: the intervention is known to be harmful.
- Consider: the intervention may be beneficial in selected patients (conditional recommendation) **OR** be considering this intervention.

11. Caring for pregnant women with COVID-19

World Health Organization

To date, there are limited data on clinical presentation and perinatal outcomes after COVID-19 during pregnancy or the puerperium. There is no evidence that pregnant women present with different signs or symptoms or are at higher risk of severe illness. So far, there is no evidence on mother-to-child transmission when infection manifests in the third trimester, based on negative samples from amniotic fluid, cord blood, vaginal discharge, neonatal throat swabs or breastmilk. Similarly, evidence of increased severe maternal or neonatal outcomes is uncertain, and limited to infection in the third trimester, with some cases of premature rupture of membranes, fetal distress, and preterm birth reported *(68, 69)*.

This section builds on existing recommendations from WHO on pregnancy and infectious diseases and provides additional remarks for the management of pregnant and recently pregnant women.

- **Considering asymptomatic transmission of COVID-19 may be possible in pregnant or recently pregnant women, as with the general population, all women with epidemiologic history of contact should be carefully monitored.**
- **Pregnant women with suspected, probable, or confirmed COVID-19, including women who may need to spend time in isolation, should have access to woman-centred, respectful skilled care, including obstetric, fetal medicine and neonatal care, as well as mental health and psychosocial support, with readiness to care for maternal and neonatal complications.**

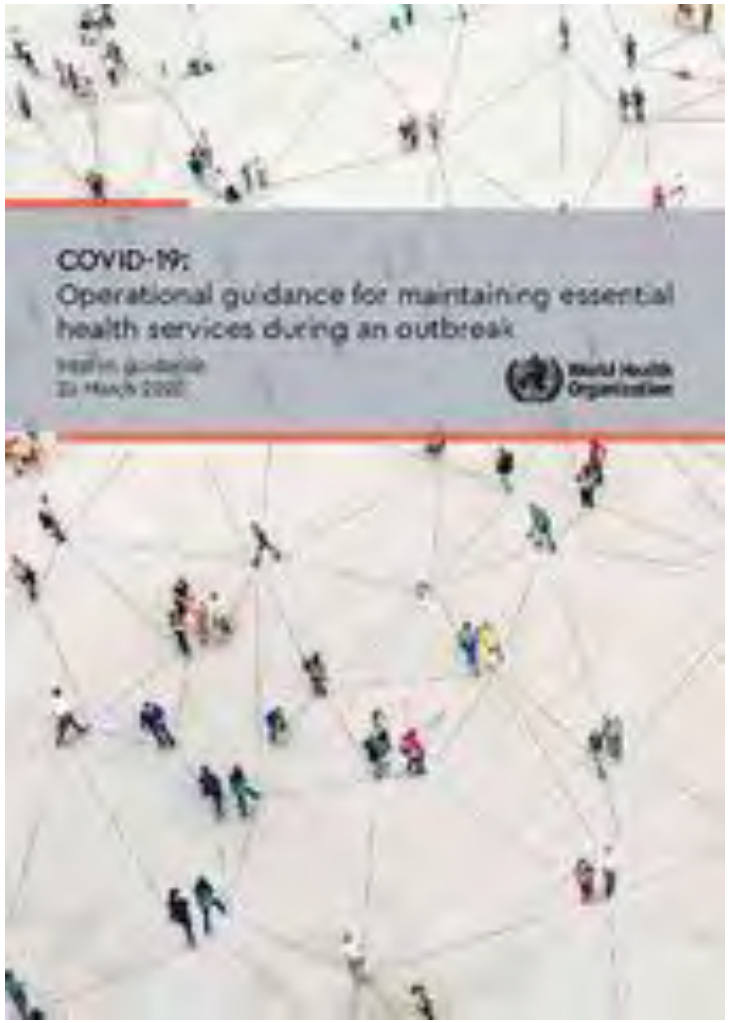
review of observational studies in influenza found a higher risk of mortality and secondary infections with corticosteroids; the evidence was judged as very low to low quality owing to confounding by indication *(63)*. A subsequent study that addressed this limitation by adjusting for time-varying confounders found no effect on mortality *(64)*. Finally, a recent study of patients receiving corticosteroids for MERS used a similar statistical approach and found no effect of corticosteroids on mortality but delayed LRT clearance of MERS-CoV *(65)*. Given the lack of effectiveness and possible harm, routine corticosteroids should be avoided unless they are indicated for another reason. Other reasons may include exacerbation of asthma or COPD, septic shock, and risk/benefit analysis needs to be conducted for individual patients.

Remark 2: A recent guideline issued by an international panel and based on the findings of two recent large RCTs makes a conditional recommendation for corticosteroids for all patients with sepsis (including septic shock) *(66)*. Surviving Sepsis guidelines, written before these RCTs were reported, recommend corticosteroids only for patients in whom adequate fluids and vasopressor therapy do not restore hemodynamic stability *(5)*. Clinicians considering corticosteroids for a patient with COVID-19 and sepsis must balance the potential small reduction in mortality with the potential downside of prolonged shedding of coronavirus in the respiratory tract, as has been observed in patients with MERS *(65)*. If corticosteroids are prescribed, monitor and treat hyperglycaemia, hypernatraemia, and hypokalaemia. Monitor for recurrence of inflammation and signs of adrenal insufficiency after stopping corticosteroids, which may have to be tapered. Because of the risk of *strongyloides stercoralis* hyper-infection with steroid therapy, diagnosis or empiric treatment should be considered in endemic areas if steroids are used *(67)*.

Remark 2 for pregnant women: WHO recommends antenatal corticosteroid therapy for women at risk of preterm birth from 24 to 34 weeks of gestation when there is no clinical evidence of maternal infection, and adequate childbirth and newborn care is available. However, in cases where the woman presents with mild COVID-19, the clinical benefits of aantenatal corticosteroid might outweigh the risks of potential harm to the mother. In this situation, the balance of benefits and harms for the woman and the preterm newborn should be discussed with the woman to ensure an informed decision, as this assessment may vary depending on the woman's clinical condition, her wishes and that of her family, and available health care resources (https://www.who.int/reproductivehealth/publications/maternal_perinatal_health/preterm-birth-highlights/en/).

Remark 3: WHO has prioritized the evaluation of corticosteroids in clinical trials to assess safety and efficacy (https://www.who.int/blueprint/priority-diseases/key-action/Global_Research_Forum_FINAL_VERSION_for_web_14_feb_2020.pdf?ua=1).

Maintaining Essential Health Services



https://www.who.int/publications-detail/covid-19-operational-guidance-for-maintaining-essential-health-services-during-an-outbreak

When health
outbreak and
conditions in
decisions to
while simulta
action to ma
system collap
**the *Operatic
response, an
that countrie
reorganize a
for all.**

WHO TEAM

Guiding principles for immunization activities during the COVID-19 pandemic

Interim guidance
26 March 2020

World Health Organization

As the COVID-19 pandemic evolves, this document and accompanying FAQ will be revised as necessary.

Due to the global circulation of the virus causing COVID-19 and the current pandemic, there is risk of disruption to routine immunization activities due to both COVID-19 related burden on the health system and decreased demand for vaccination because of physical distancing requirements or community reluctance. Disruption of immunization services, even for brief periods, will result in increased numbers of susceptible individuals and raise the likelihood of outbreak-prone vaccine preventable diseases (VPDs) such as measles.[1] Such VPD outbreaks may result in increased morbidity and mortality predominantly in young infants and other vulnerable groups, which can cause greater burden on health systems already strained by the COVID-19 response. The high potential for VPD outbreaks makes it imperative for countries to maintain continuity of immunization services wherever services can be conducted under safe conditions. Prior disease outbreaks and humanitarian emergencies have underscored the importance of maintaining essential health services such as immunization, and effectively engaging communities in planning and service delivery.[2,3] Yet the complexity and global reach of the COVID-19 response with respect to mandatory physical distancing (also referred to as social distancing) and economic impact on households is unprecedented for public health.

Maintaining Essential HIV Prevention and Contraception Services

World Health Organization

- Learning from Ebola in West Africa: increased unplanned and teenage pregnancies during emergency response → unsafe abortions and AGYW morbidly
    - **Prioritize continuation of contraception services**
- Many HIV prevention activities likely to be paused or scaled down eg VMMC, community outreach activities.
- But **condoms, harm reduction and methadone programmes** need to continue with modifications
    - Delivery of supplies with social distancing through pharmacies
    - Larger supplies for longer time periods
- **Continue to support HIV testing** including through expanding access to self-testing

CONDOM SHORTAGE LOOMS AFTER CORONAVIRUS LOCKDOWN SHUTS WORLD'S TOP PRODUCER

Malaysia's Karex Bhd makes one in every five condoms globally. It has not produced a single condom from its three Malaysian factories for more than a week due to a lockdown imposed by the government.

Condoms "not essential" – purchase banned in a supermarket in South Africa

Differentiated HIV testing services (HTS) in COVID-19 Context

- **It is important to support undiagnosed PLHIV to get tested and linked to ART**
  - PLHIV, who do not know their status and are not ART and those with known risk factors (e.g. diabetes), who acquire a COVID-19 infection may be at risk of COVID-19 complications
- **Safety of HTS providers needs to be ensured** during testing procedures
  - practices including PPE, hand hygiene, respiratory hygiene, and physical distancing measures.
  - adaptations such as increased use of phone calls, digital tools (e.g. videos, websites, social media, text messages) and approaches like self-testing
- **Considerations for prioritizing and adapting HTS programmes**
  - Continuing ongoing critical clinical services (e.g. ANC, individuals with symptoms or conditions indicative of HIV or with related co-infections or other co-morbidities (e.g. TB , STIs, malnutrition), and EID of HIV-exposed children).
  - Partner/index/family testing to reach the partners of PLHIV presenting at facilities, as well ongoing key populations programmes; increasingly using phone calls
  - Increasing use of HIV self-testing (HIVST) and restricting/pausing community outreach in some settings
  - Maintain linkage and referrals to ART and condoms.
  - Key populations and other vulnerable groups who need HTS, as well as other comprehensive sexual health services, and social protection.
  - Monitor supply chain management as there may be increased risks of disruptions.

Considerations for HIVST

- HIVST may be an acceptable alternative to maintain services while adhering to physical distancing guidance.
- It is important to strategically implement HIVST **prioritizing areas and populations** with the greatest needs and gaps in testing coverage.
- **HIVST approaches include:**
  - distribution for personal use and/or sexual and/or drug injecting partners of PLHIV and social contacts of key populations
  - In some high HIV burden settings, pregnant women may also provide HIVST kits to their male partners.
- **Priority settings to consider**
  - Pick up at facilities or community sites
  - Online platforms (e.g. websites, social media, digital platforms) and distribution through mail
  - Pharmacies, retail vendors, vending machines

World Health Organization

Benefits of differentiated service delivery

6 monthly clinic visits improves retention in Zambia

Good adherence with 3 monthly clinic visits in Spain

Home delivery of ART feasible and improves outcomes in UK & Spain

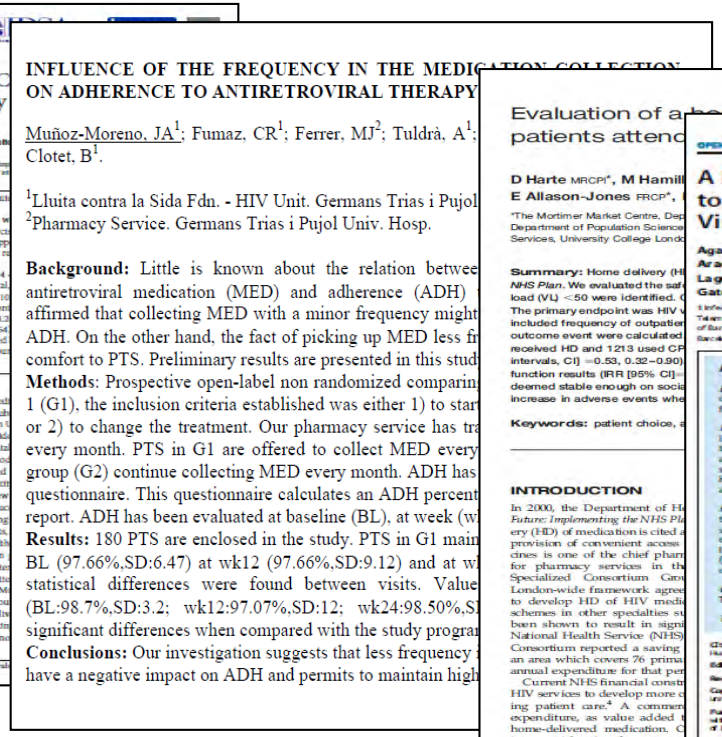
3 monthly clinic visits reduces costs to patients and health system in Kenya and Uganda

Clinical Infectious Diseases

MAJOR ARTICLE

Improved Retention With 6-Month C
for Stable Human Immunodeficiency
Patients in Zambia

Mody, Clin Inf Dis 2017



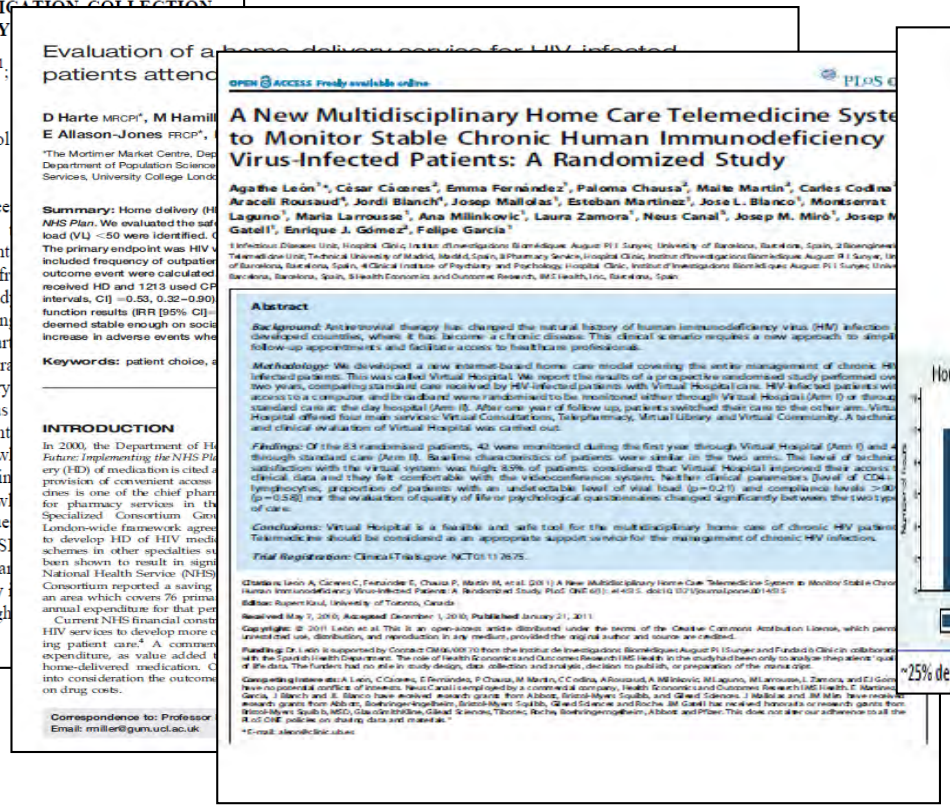
INFLUENCE OF THE FREQUENCY IN THE MEDIC... COLLECTION
ON ADHERENCE TO ANTIRETROVIRAL THERAPY

Muñoz-Moreno, JA[1]; Fumaz, CR[1]; Ferrer, MJ[2]; Tuldrà, A[1]; Clotet, B[1].

[1]Lluita contra la Sida Fdn. - HIV Unit. Germans Trias i Pujol
[2]Pharmacy Service. Germans Trias i Pujol Univ. Hosp.

Background: Little is known about the relation betwee antiretroviral medication (MED) and adherence (ADH) affirmed that collecting MED with a minor frequency might ADH. On the other hand, the fact of picking up MED less fr comfort to PTS. Preliminary results are presented in this stud
Methods: Prospective open-label non randomized comparin 1 (G1), the inclusion criteria established was either 1) to star or 2) to change the treatment. Our pharmacy service has tra every month. PTS in G1 are offered to collect MED every group (G2) continue collecting MED every month. ADH has questionnaire. This questionnaire calculates an ADH percent report. ADH has been evaluated at baseline (BL), at week (w
Results: 180 PTS are enclosed in the study. PTS in G1 main BL (97.66%,SD:6.47) at wk12 (97.66%,SD:9.12) and at wi statistical differences were found between visits. Value (BL:98.7%,SD:3.2; wk12:97.07%,SD:12; wk24:98.50%,S significant differences when compared with the study progra
Conclusions: Our investigation suggests that less frequency have a negative impact on ADH and permits to maintain high

Munoz-Moreno, IAS 2016



Evaluation of a home delivery service for HIV-infected patients attend

D Harte MRCPI*, M Hamill
E Allason-Jones FRCP*,

*The Mortimer Market Centre, Dep
Department of Population Science
Services, University College Lond

Summary: Home delivery (H
NHS Plan. We evaluated the saf
load (VL) <50 were identified.
The primary endpoint was HIV
included frequency of outpatie
outcome event were calculated
received HD and 1213 used CP
intervals, CI) =0.53, 0.32–0.90)
function results (IRR [95% CI]=
deemed stable enough on soci
increase in adverse events whe

Keywords: patient choice,

INTRODUCTION

In 2000, the Department of H
Future: Implementing the NHS Pl
ery (HD) of medication is cited a
provision of convenient access
cines is one of the chief pharm
for pharmacy services in th
Specialized Consortium Gro
London-wide framework agree
to develop HD of HIV medi
schemes in other specialties su
been shown to result in signi
National Health Service (NHS)
Consortium reported a saving
an area which covers 76 prima
annual expenditure for that per
Current NHS financial constr
HIV services to develop more c
ing patient care.[5] A comme
expenditure, as value added
home-delivered medication. C
into consideration the outcom
on drug costs.

Correspondence to: Professor
Email: rmiller@gum.ucl.ac.uk

PLoS ONE

OPEN ACCESS Freely available online

A New Multidisciplinary Home Care Telemedicine Syste
to Monitor Stable Chronic Human Immunodeficiency
Virus-Infected Patients: A Randomized Study

Agathe León[1]*, César Cáceres[2], Emma Fernández[3], Paloma Chausa[3], Maite Martín[3], Carles Codina[4], Araceli Rousaud[4], Jordi Blanch[4], Josep Mallolas[5], Esteban Martínez[5], Jose L. Blanco[5], Montserrat Laguno[5], María Larrousse[5], Ana Milinkovic[5], Laura Zamora[5], Neus Canal[5], Josep M. Miró[5], Josep M Gatell[5], Enrique J. Gómez[2], Felipe García[5]

Abstract

Background: Antiretroviral therapy has changed the natural history of human immunodeficiency virus (HIV) infection
Methodology: We developed a new internet-based home care model covering the entire management of chronic HI
Findings: Of the 83 randomized patients, 42 were monitored during the first year through Virtual Hospital (Arm I) and
Conclusions: Virtual Hospital is a feasible and safe tool for the multidisciplinary home care of chronic HIV patients
Trial Registration: ClinicalTrials.gov NCT01112675

Citation: León A, Cáceres C, Fernández E, Chausa P, Martín M, et al. (2011) A New Multidisciplinary Home Care Telemedicine System to Monitor Stable Chronic Human Immunodeficiency Virus-Infected Patients: A Randomized Study. PLoS ONE 6(1): e14515. doi:10.1371/journal.pone.0014515

Editor: Rupert Kaul, University of Toronto, Canada

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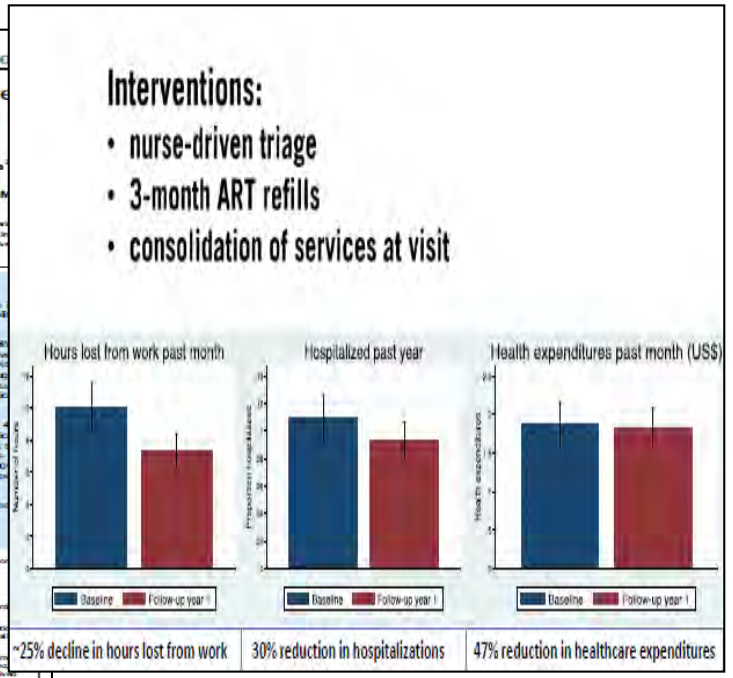
Copyright: © 2011 León et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Funding: Dr. León is supported by Contract CM06/00170 from the Instituto de Investigaciones Biomédicas August Pi i Sunyer and Fundació Clínic colaboración with the Spanish Health Department. The role of Health Economics and Outcomes Research IMS Health in the study had been only to analyse the patients' qual of the data. The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

Competing Interests: A. León, C. Cáceres, E. Fernández, P. Chausa, M. Martín, C. Codina, A. Rousaud, A. Milinkovic, M. Laguno, M. Larrousse, L. Zamora, and E. Gómez have no potential conflicts of interests. Neus Canal is employed by a commercial company, Health Economic and Outcomes Research IMS Health. E. Martínez, J. Blanch and J. Blanco have received research grants from Abbott, Bristol-Myers Squibb, and Gilead Sciences. J. Mallolas and JM Miró have received research grants from Abbott, Boehringer-Ingelheim, Bristol-Myers Squibb, Gilead Sciences and Roche. JM Gatell has received honoraria or research grants from Bristol-Myers Squib b, MSD, GlaxoSmithKline, Gilead Sciences, Tibotec, Roche, Boehringer-Ingelheim, Abbott and Pfizer. This does not alter our adherence to all the PLoS ONE policies on sharing data and materials.

*E-mail: aleon@clinic.ub.es

Leon PlosONE 2011; Harte I J STD AIDS 2008



Thirumurthy, IAS 2016

WHO recommendations supporting DSD for clinically stable clients during COVID-19 (advise MMD & avoid group meetings)

WHEN

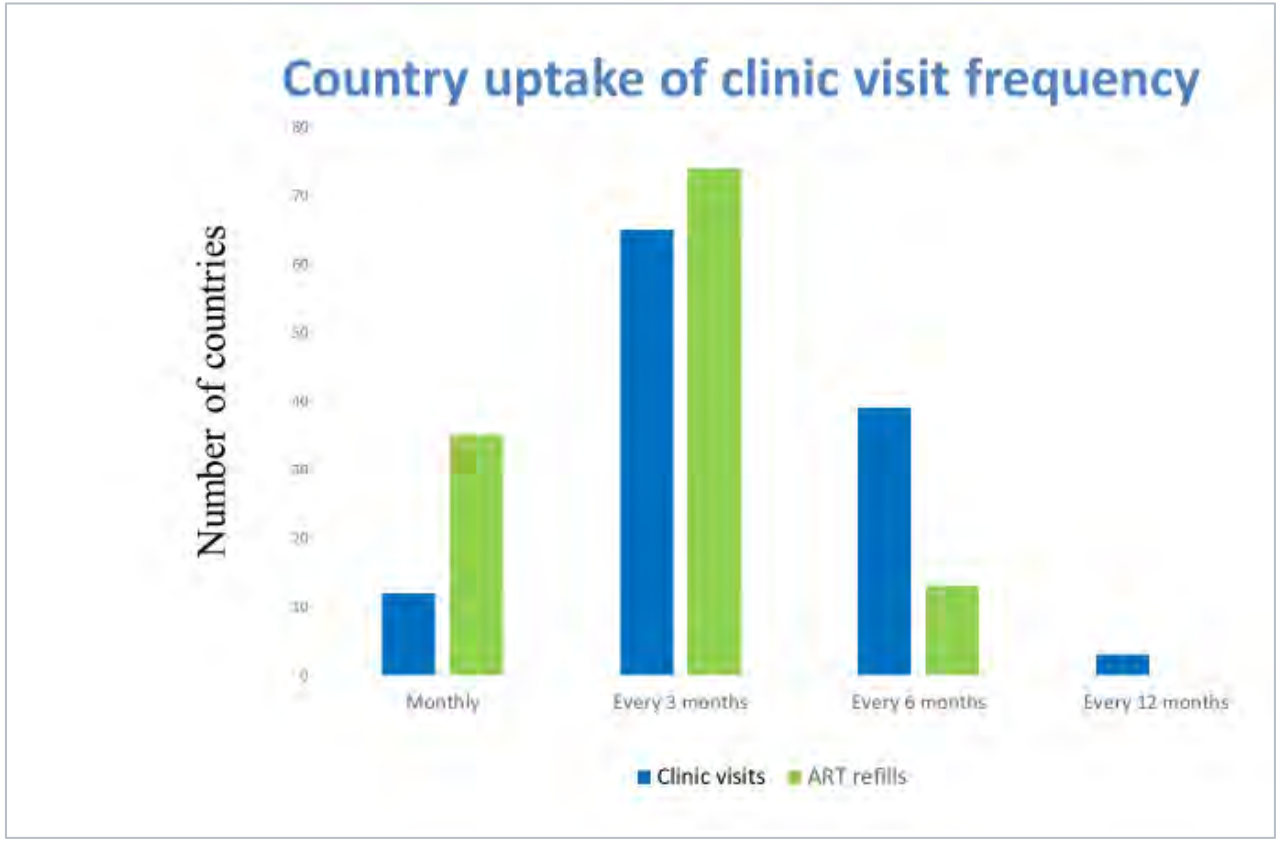
- 3-6 monthly ART refills
- 3-6 monthly clinic visits

WHERE

- ART maintenance at community level

WHO

- Trained non-physicians/nurses/midwives can initiate and maintain ART
- Trained/supervised lay providers can distribute ART
- Trained/supervised CHWs can dispense ART between clinic visits



World Health Organization

HIV and COVID-19 Diagnostics considerations

World Health Organization

- **Three molecular technologies have US FDA emergency use authorization** (undergoing WHO prequalification emergency use listing review) that are commonly used by HIV and TB programmes – **Abbott m2000, Cepheid Xpert, Roche cobas 6800/8800**
  - Of note, WHO is working with partners and manufacturers to try to support access to the SARS-CoV-2 tests on these platforms outside of the US and Western Europe (however, other alternatives such as manual or in-house assays should be considered in combination).
  - Also, current WHO laboratory guidance suggests that COVID-19 testing should be conducted in appropriately equipped **laboratories with BSL-2 facilities**. https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/laboratory-guidance
  - Guidance suggests serological testing can be considered for **surveillance purposes**, but not diagnosis.

- **Maintain other critical molecular diagnostics, particularly:**
  - Early infant diagnosis
  - Tuberculosis testing
  - Viral load testing for people living with advanced HIV disease; those suspected of failing treatment, including pregnant and breastfeeding women; infants, children, and adolescents.


Laboratory testing for coronavirus disease (COVID-19) in suspected human cases.

Interim guidance
19 March 2020

World Health Organization

Background

This document provides interim guidance to laboratories and stakeholders involved in COVID-19 virus laboratory testing of patients.

It is based in part on the interim guidance on laboratory testing for Middle East Respiratory Syndrome (MERS) coronavirus [1,2] Information on human infection with the COVID-19 virus is evolving and WHO continues to monitor developments and revise recommendations as necessary. This document will be revised as new information becomes available. Feedback is welcome and can be sent to WHEnlab@who.int.

The virus has now been named SARS-CoV-2 by the International Committee of Taxonomy of Viruses (ICTV) (2). This virus can cause the disease named coronavirus disease 2019 (COVID-19). WHO refers to the virus as COVID-19 virus in an current documentation.

If case management requires, patients should be tested for other respiratory pathogens using routine laboratory procedures, as recommended in local management guidelines for community-acquired pneumonia. Additional testing should not delay testing for COVID-19. As co-infections can occur, all patients that meet the suspected case definition should be tested for COVID-19 virus regardless of whether another respiratory pathogen is found.

In an early study in Wuhan, the mean incubation period for COVID-19 was 5.2 days among 425 cases, though it varies widely between individuals.[3,4] Virus shedding patterns are not yet well understood and further investigations are needed to better understand the timing, compartmentalization, and quantity of viral shedding to inform optimal specimen collection. Although respiratory samples have the greatest yield, the virus can be detected in other specimens, including stool and blood.[5,6] Local guidelines on informed consent should be followed for specimen collection, testing, and potentially future research.

Laboratory testing guiding principles for patients who meet the suspect case definition

The decision to test should be based on clinical and epidemiological factors and linked to an assessment of the likelihood of infection. PCR testing of asymptomatic or mildly symptomatic contacts can be considered in the assessment of individuals who have had contact with a COVID-19 case. Screening protocols should be adapted to the local situation. The case definitions are being regularly reviewed and updated as new information becomes available. For the WHO suspected case definition see: Global Surveillance for human infection with coronavirus disease (COVID-2019).[1]

Rapid collection and testing of appropriate specimens from patients meeting the suspected case definition for COVID-19 is a priority for clinical management and outbreak control and should be guided by a laboratory expert. Suspected cases should be screened for the virus with nucleic acid amplification tests (NAAT), such as RT-PCR.

If testing for COVID-19 is not yet available nationally, specimens should be referred. A list of WHO reference laboratories providing confirmatory testing for COVID-19 and shipment instructions are available.

Specimen collection and shipment

Safety procedures during specimen collection

Ensure that adequate standard operating procedures (SOPs) are in use and that staff are trained for appropriate specimen collection, storage, packaging, and transport. All specimens collected for laboratory investigations should be regarded as potentially infectious.

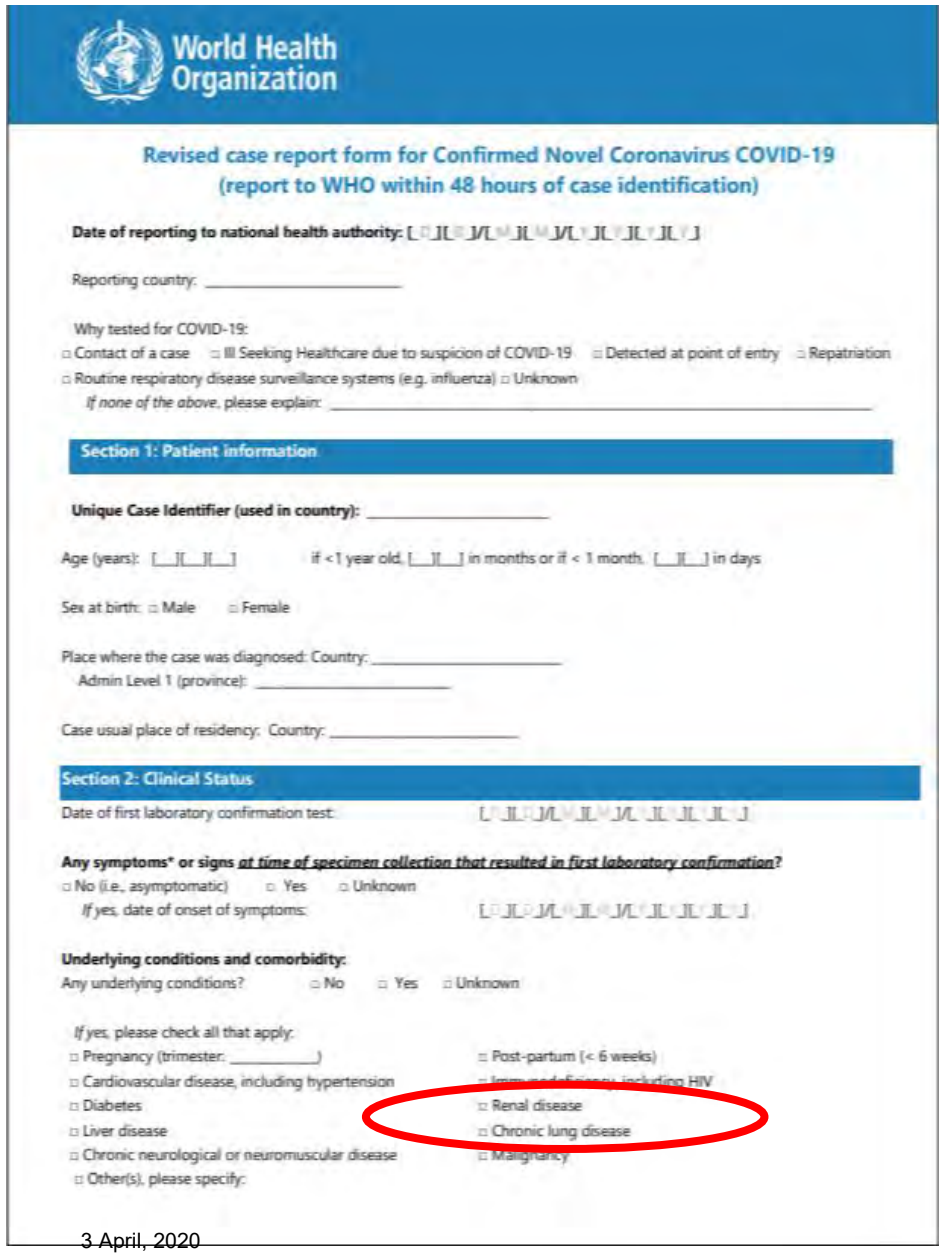
Ensure that health care workers who collect specimens adhere rigorously to infection prevention and control guidelines. Specific WHO interim guidance has been published.[7,8]

Box 1. Biosafety practices in the laboratory

Testing on clinical specimens from patients meeting the suspected case definition should be performed or appropriately supported laboratories by staff trained in the relevant technical and safety procedures. National guidelines on laboratory biosafety should be followed in all circumstances. There is still limited information on the risk posed by COVID-19, but all procedures should be undertaken based on a risk assessment. Specimen handling for molecular testing would require BSL-2 or equivalent facilities. Attempts to culture the virus require BSL-3 facilities at minimum.

For more information related to COVID-19 risk assessment, see: WHO interim guidance for laboratory biosafety related to 2019-nCoV. Samples that are potentially infectious materials (PIM) for polio need to be handled and stored as described in WHO document Guidance to minimize risks for facilities collecting, handling or storing potentially infectious for poliovirus (PIM Guidance). For general laboratory biosafety guidelines, see the WHO Laboratory Biosafety Manual, 3rd edition before the 4th edition is released.

COVID Surveillance and Health Information Systems



World Health Organization

Revised case report form for Confirmed Novel Coronavirus COVID-19
(report to WHO within 48 hours of case identification)

Date of reporting to national health authority: [ ][ ]/[ ][ ]/[ ][ ][ ][ ]

Reporting country: _____

Why tested for COVID-19:
□ Contact of a case □ Ill Seeking Healthcare due to suspicion of COVID-19 □ Detected at point of entry □ Repatriation
□ Routine respiratory disease surveillance systems (e.g. influenza) □ Unknown
If none of the above, please explain: _____

Section 1: Patient information

Unique Case Identifier (used in country): _____

Age (years): [ ][ ][ ] if <1 year old, [ ][ ] in months or if < 1 month, [ ][ ] in days

Sex at birth: □ Male □ Female

Place where the case was diagnosed: Country: _____
Admin Level 1 (province): _____

Case usual place of residency: Country: _____

Section 2: Clinical Status

Date of first laboratory confirmation test: [ ][ ]/[ ][ ]/[ ][ ][ ][ ]

Any symptoms* or signs *at time of specimen collection that resulted in first laboratory confirmation*?
□ No (i.e., asymptomatic) □ Yes □ Unknown
If yes, date of onset of symptoms: [ ][ ]/[ ][ ]/[ ][ ][ ][ ]

Underlying conditions and comorbidity:
Any underlying conditions? □ No □ Yes □ Unknown

If yes, please check all that apply:
□ Pregnancy (trimester: _____) □ Post-partum (< 6 weeks)
□ Cardiovascular disease, including hypertension □ Immunodeficiency, including HIV
□ Diabetes □ Renal disease
□ Liver disease □ Chronic lung disease
□ Chronic neurological or neuromuscular disease □ Malignancy
□ Other(s), please specify:

- WHO global COVID case reporting form and tools (Case-based reporting form)
  - HIV included as underlying condition and comorbidity
  - Currently ART status not collected
- HIV status not included in aggregate reporting, i.e. line list, but may be adapted at country level as appropriate

(Template for Line list for case-based reporting)

- Health information system approaches:
  - Adapt existing national disease surveillance systems, e.g. IDSR including electronic IDSR
  - Adapt open-source tools such as Go Data (https://www.who.int/godata) and DHIS2 (https://www.dhis2.org/covid-19)

Regional Health Systems Response Monitor

World Health Organization

https://www.covid19healthsystem.org/mainpage.aspx

Tracking the Availability of Essential meds and ARVs with Partners

https://www.who.int/emergencies/diseases/novel-coronavirus-2019
https://www.who.int/news-room/commentaries/detail/off-label-use-of-medicines-for-covid-19
https://www.who.int/ethics/publications/infectious-disease-outbreaks/en/

Off-label use of medicines for COVID-19
Scientific brief

31 March 2020

No pharmaceutical products have yet been shown to be safe and effective for the treatment of COVID-19. However, a number of medicines have been suggested as potential investigational therapies, many of which are now being or will soon be studied in clinical trials, including the SOLIDARITY trial co-sponsored by WHO and participating countries.

In many countries, doctors are giving COVID-19 patients medicines that have not been approved for this disease. The use of licensed medicines for indications that have not been approved by a national medicines regulatory authority is considered "off-label" use. The prescription of medicines for off-label use by doctors may be subject to national laws and regulations. All health care workers should be aware of and comply with the laws and regulations governing their practice. Further, such prescribing should be done on a case-by-case basis. Unnecessary stockpiling and the creation of shortages of approved medicines that are required to treat other diseases should be avoided.

It can be ethically appropriate to offer individual patients experimental interventions on an emergency basis outside clinical trials, provided that no proven effective treatment exists; it is not possible to initiate clinical studies immediately; the patient or his or her legal representative has given informed consent; and the emergency use of the intervention is monitored, and the results are documented and shared in a timely manner with the wider medical and scientific community.

The decision to offer a patient an unproven or experimental treatment is between the doctor and the patient but must comply with national law. Where it is possible and feasible for the treatment to be given as part of a clinical trial, this should be done unless the patient declines to participate in the trial.

If it is not possible to give the treatment as part of a clinical trial, appropriate records of the use of the medicine must be kept, in compliance with national law, and outcomes for patients should be monitored and recorded.

If early results from an unproven or experimental treatment are promising, the treatment should be studied in the context of a formal clinical trial to establish its safety, efficacy, risks, and benefits.

COVID19 | Supply Chain Interagency Coordination Cell

Partners

The Cell is led by WHO and made of partners committed to leveraging and complementing their respective strengths to fight COVID19

World Health Organization

IFRC

WFP World Food Programme

unicef

MEDECINS SANS FRONTIERES

UNHCR The UN Refugee Agency

COVID19 | Supply Chain Interagency Coordination Cell

Workstreams – Enablers – Goal

Supply and Demand

Visibility over the supply and demand of critical items for COVID19 response: PPE, lab diagnostic and clinical equipment

Logistics and Access

Up to date information about access and logistics constraints, availability of assets and services

Programme Continuity

Flag disruptions to ongoing humanitarian and development programme

Scale up of Operations

Provide visibility to the COVID19 response, identify gaps and appropriate actors to fill them and facilitate access to finance

Information Management & Advocacy

Collect, analyze and disseminate the appropriate products through different platforms

Coordination

Establish a main entry point for the COVID19 response to support informed decision making among partners

Enable an efficient and effective supply chain response across the community through the dissemination of information to support strategic guidance, operational decision-making, and overall monitoring

3 April, 2020

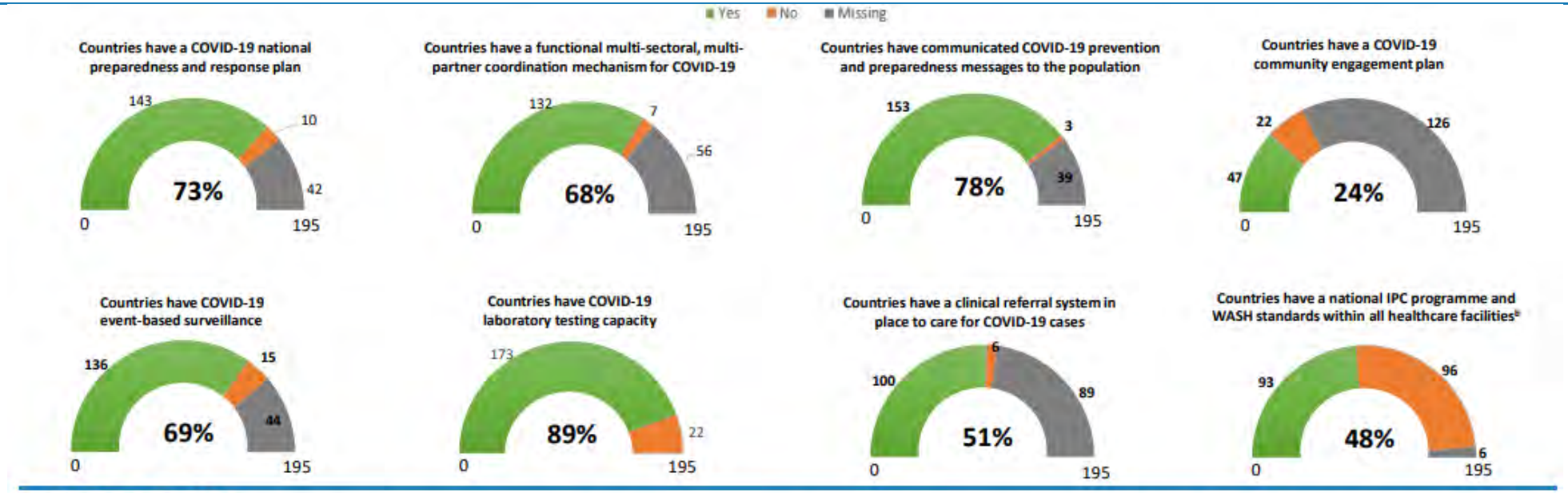
3 important points for Health system preparedness

- TRIAGE
- Space and Supplies
- Health care workers

3 April, 2020

COVID-19 Global Preparedness and Response Summary Measures

Data as of 16 March 2020



312 600 ENROLMENTS FOR COVID-19 COURSES ON OpenWHO

Outbreak specific	Introduction to COVID-19	**169 610 users** Available in 7 languages
Health and safety	eProtect Respiratory Infections	**19 270 users** Available in 4 languages
Interventions	Critical Care for Severe Acute Respiratory Infections	**17 000 users** Available in 3 languages
Interventions	IPC for COVID-19	**75 910 users** Available in 4 languages
Country preparedness and response planning		**30 840 users** Available in 1 language

INCREASING THE KNOWLEDGE BASE: COUNTRY UPTAKE OF INVESTIGATION PROTOCOLS

Transmission dynamics and severity

- **Intention confirmed: 28 countries** (AFR 14, AMR 3, EMR 2, EUR 4, SEAR 0, WPR 5)
- **Implementation started: 11 countries** (AFR 2, AMR 1, EMR 0, EUR 4, SEAR 0, WPR 4)
- **Progress shared with WHO: 4 countries** (AFR 0, AMR 0, EMR 0, EUR 3, SEAR 0, WPR 1)

Clinical characterization for hospitalized cases

- **Intention confirmed (0)**
- **Implementation started (0)**
- **Progress shared with WHO (0)**

Notes

a. Data collected from 194 Member States and 1 territory through the WHO Regional Offices.

b. The indicator for infection prevention and control (IPC) was based on the International Health Regulations State Parties Annual Reporting (SPAR) results from 2019, or 2018 results if 2019 data was not available

Progress update: COVID-19 Partners Platform https://covid-19-response.org

Global level updates

- **UNDCO** (NY) **interest for use in wider UN response**
- **World Bank piloting for specific countries**

Region level updates

- **Regional focal points** engaged in AFRO, EURO, PAHO
- **Ongoing on-boarding** in EMRO, SEARO and WPRO

Country level updates

- **Increasing engagement from countries**
  - 25 countries participated in live demo sessions
  - 11 countries identified “Country Admins”
  - 3 countries actively using the Platform
- **Increasing exposure in donor community**
  - 22 donors from 12 countries registered
- **Global support team involvement**
  - 15-20 country coaching sessions planned per week

Main challenge:

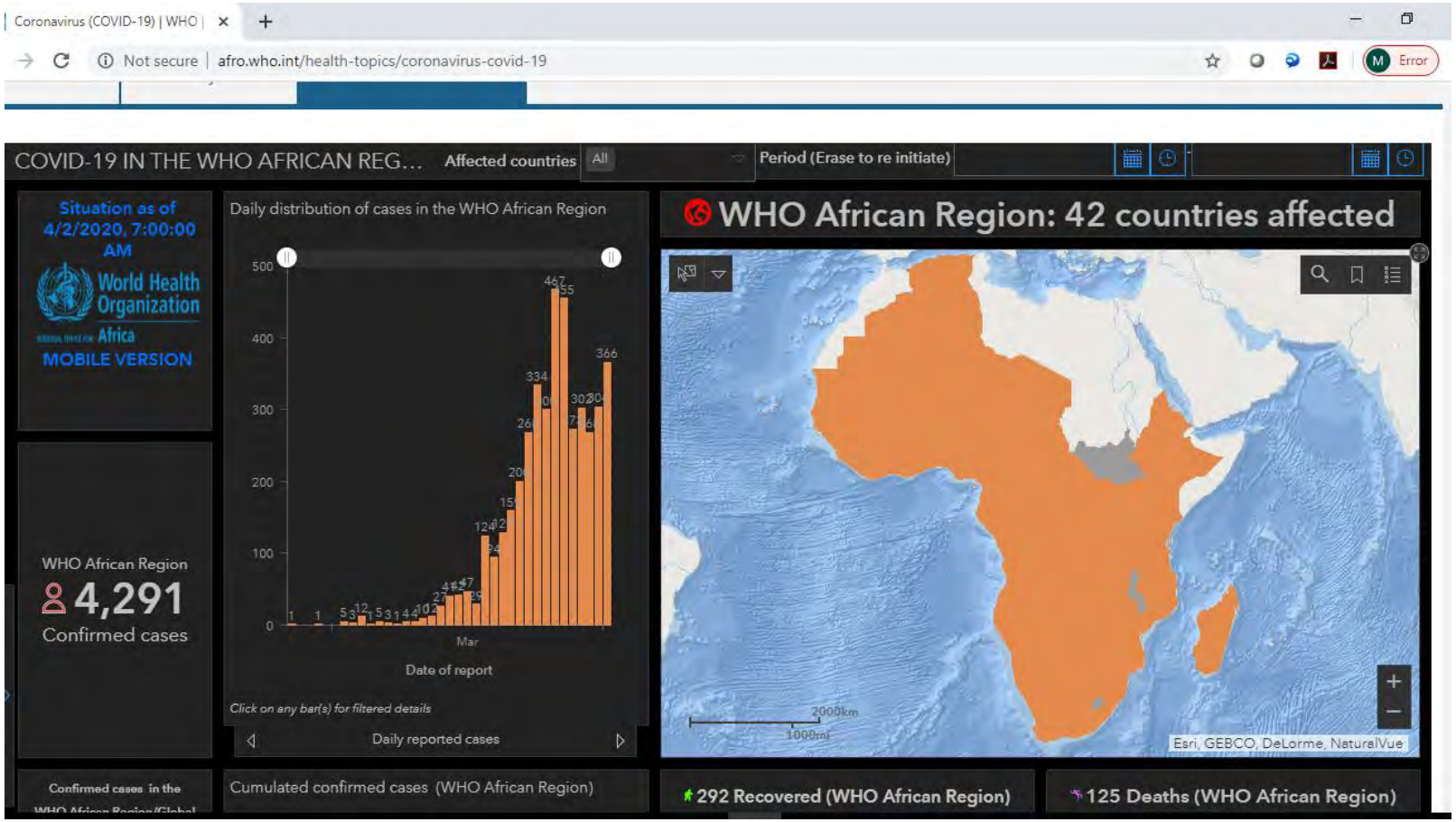
- UN Country Teams to identify “Country Admins Users”

COVID-19 response in Africa

https://www.afro.who.int/health-topics/coronavirus-covid-19

African countries move from COVID-19 readiness to response as many confirm cases

The global community is racing to slow down and eventually halt the spread of COVID-19, a pandemic that has claimed thousands of lives and sickened tens of thousands of others. In Africa, the virus has spread to dozens of countries within weeks. Governments and health authorities across the continent are striving to limit widespread infections.

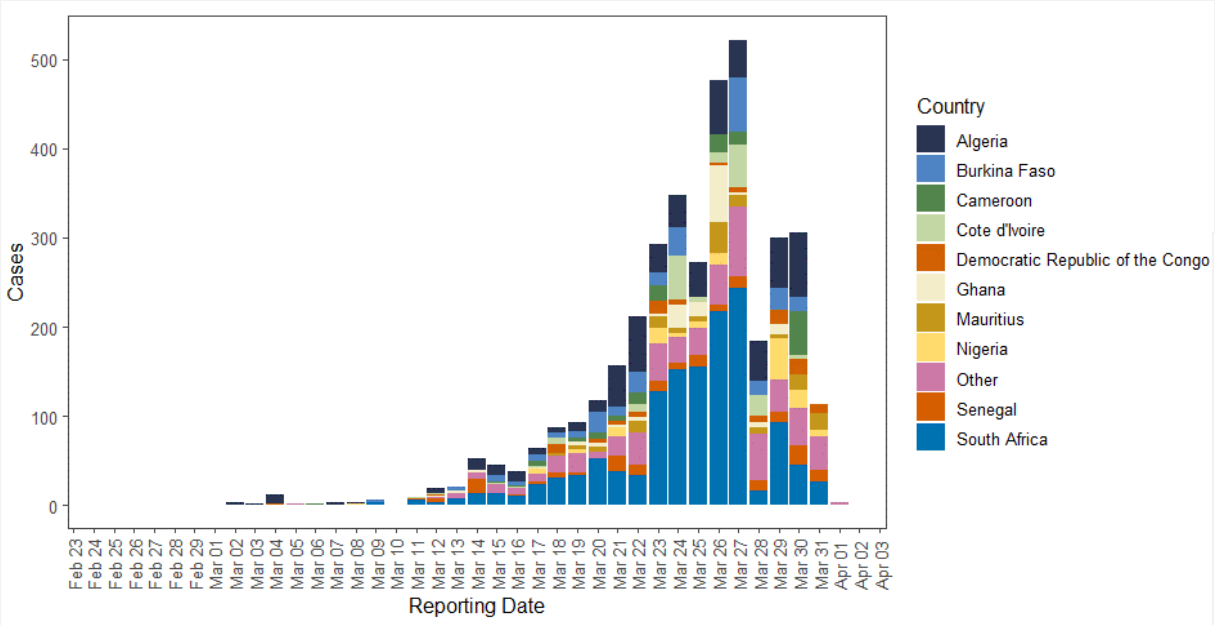


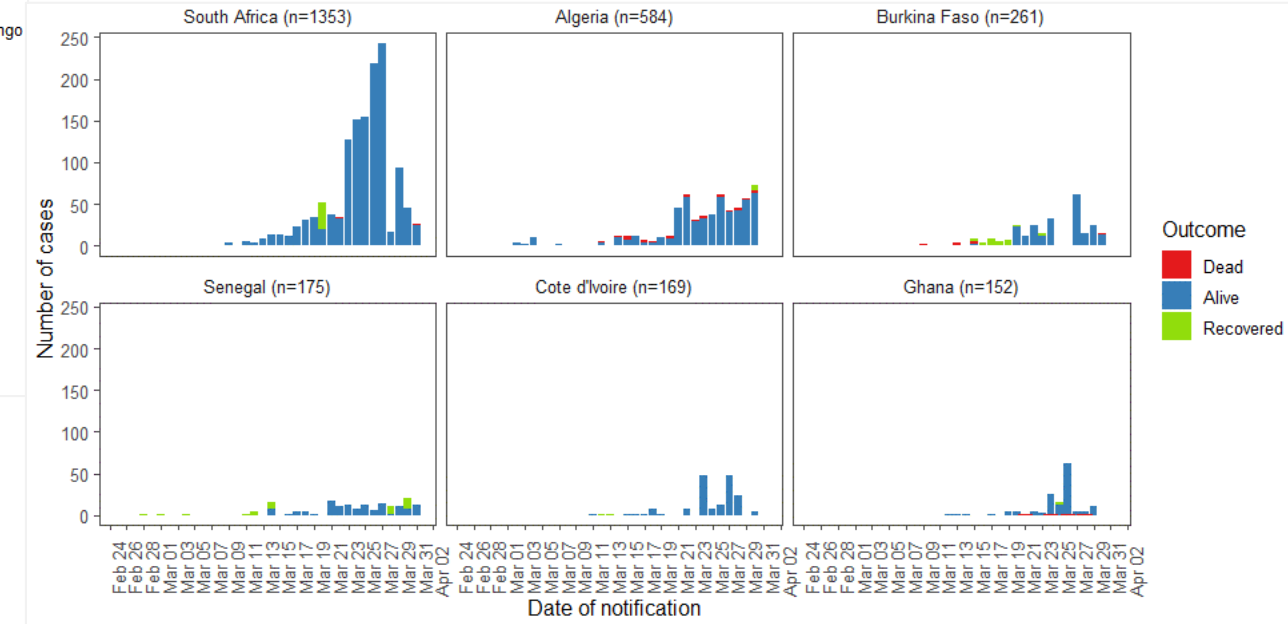
COVID-19

WHO AFRICAN REGION

External Situation Report 5

Date of issue: 1 April 2020
Data as reported by: 1 April 2020 as of 12:00 PM (GMT+1)



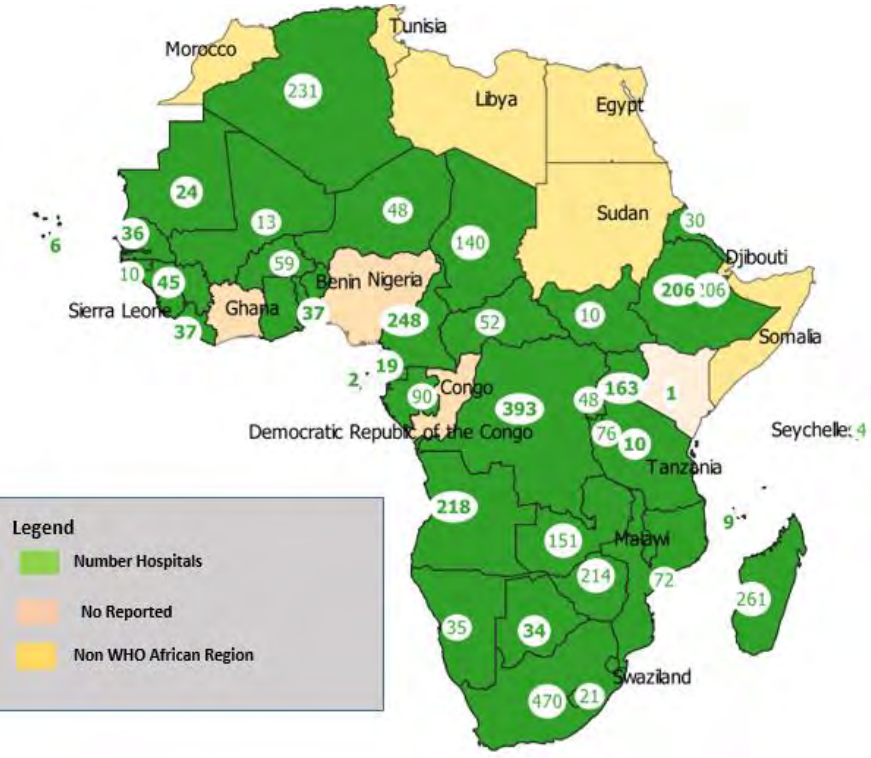


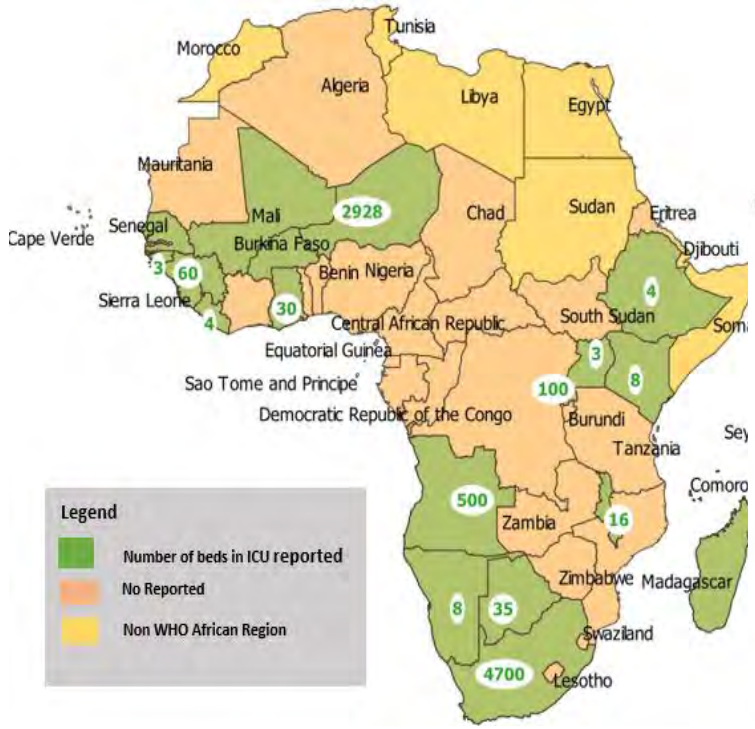
World Health Organization
REGIONAL OFFICE FOR Africa

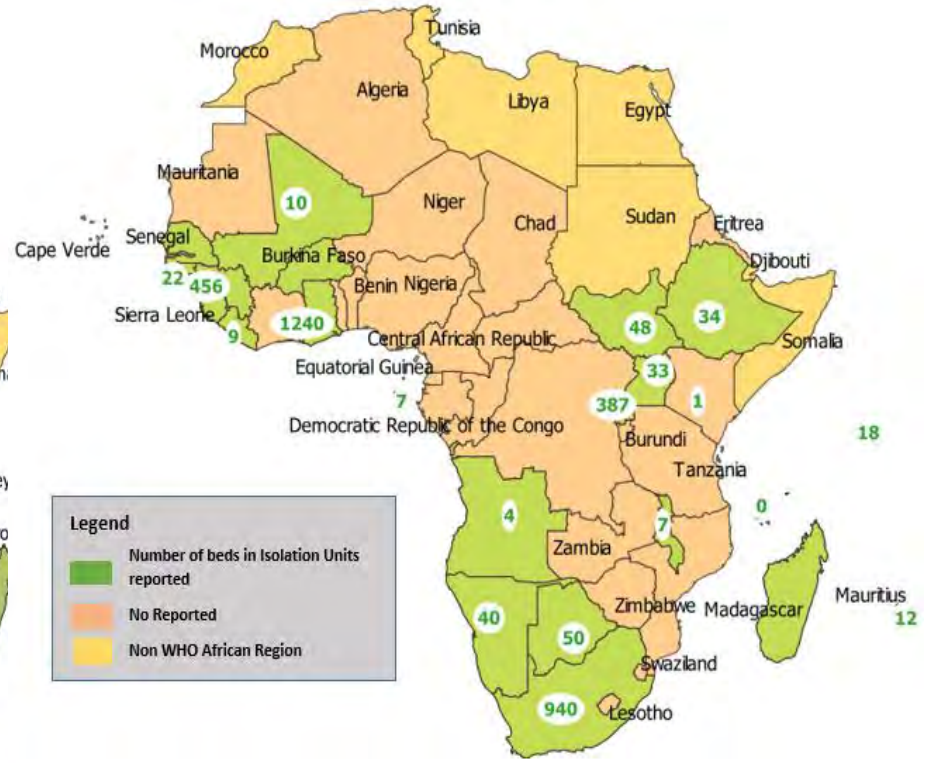
Africa's capacity to respond to COVID-19

World Health Organization

Number of Hospitals	Number of beds in ICU	Number of beds in Isolation Units







Partnerships

World Health Organization

Key indicators

Strengthening health facilities capacities

Consultant through remote support

Partners

Capacity building

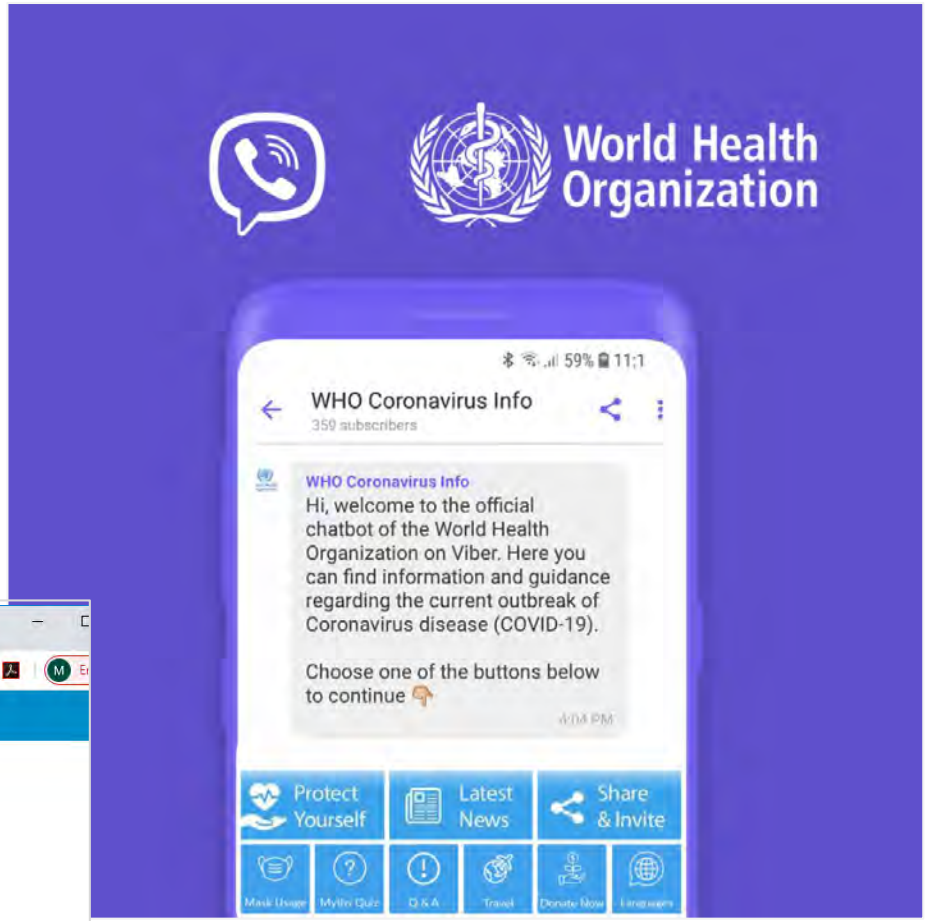
COVID-19 Case Management

Daily activities

Key indicators

Starting activities: Assessment

Partners



World Health Organization

Addressing fear, stigma and discrimination

Engagement and information including through social media

WHO, UNICEF and IFRC issued guidance on **risk communication and community engagement** for COVID-19 preparedness and the response
https://www.who.int/publications-detail/risk-communication-and-community-engagement-(rcce)-action-plan-guidance

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Civil society and community engagement

World Health Organization

Engagement facilitated through:

- UNAIDS Joint Programme
- Global Fund
- Global Action Plan for healthy lives and wellbeing
- UHC 2030
- Initiatives from communities and civil society

Issues:

- Coordination and content management
- Language and adaptation

COVID-19 summary messages

World Health Organization

Situation highly dynamic

Real-time evidence and information sharing and coordination critical

Clear learning from HIV, Ebola and other disease outbreaks

Community engagement and rights have to inform the response

Extra slides

Questions

- Could HIV treatments (ART, for instance) be a key for finding a cure for COVID-19? (10)
- What do we know about COVID-19 in children ? Are we expecting similarities for children living with HIV based on current experience/data? (4)
- Are there any special policies/protocols for positive pregnant women due to this pandemic?
- Are there special precautions needed to be taken for people living with HIV during this COVID-19 pandemic?
- How can we maintain the adherence of people living with HIV during these critical hours of national lockdown and social distancing?
- Our clients who are adolescents living with HIV want a simple explanation for why people with COVID-19 have no treatment but can get better. How can a virus just go away but HIV doesn't?
- Where do people living with HIV who are diagnosed with comorbidities stand in this pandemic?
  - Is there anything specific to people who inject drugs?
  - Any reported increased risk of COVID-19 by hepatitis B patients?
- Any specific tools for psychosocial support to HIV patients focused upon Covid- 19?
- Are medication or vaccine studies/trials for COVID-19 going to include persons living with HIV? How far are we on the research and development of a vaccine? Or of another specific treatment? (7)
- What data are available about COVID-19 among people living with HIV? Are surveillance systems being put in place in order to accurately monitor this evolving situation and quickly disseminate results?
- How can we best support adolescents and young people living with HIV?

Personal Protective Equipment Shipments (as of 13 March)

SHIPPED	Mask, Surgical	Mask, N95	Gloves, Examination	Gown	Goggles	Faceshield
AFRO	26,700	7,400	52,300	8,013	680	2,710
PAHO	12,000	210	12,000	1,004	200	1,400
EMRO	154,000	12,420	304,000	43,072	2,400	10,000
EURO	109,080	2,450	109,100	15,300	2,500	
SERO	260,000	24,715	160,000	14,000	5,250	6,500
WPRO	139,700	4,700	90,200	3,700	2,640	220
TOTAL	701,480	51,895	727,600	85,089	13,670	20,830

SHIPPED: Regional Breakdown		
WPRO	11	Cambodia, Fiji, Kiribati, Lao People's Democratic Republic, Mongolia, Nauru, Papua New Guinea, Samoa, Solomon Islands, Tonga and Vanuatu
SEARO	9	Bangladesh, Bhutan, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand and Timor-Leste
EMRO	11	Afghanistan, Djibouti, Lebanon, Somalia, Pakistan, Sudan, Morocco, Iran, Jordan, Iraq and Tunisia
AFRO	24	Algeria, Angola, Benin, Cape Verde, Equatorial Guinea, Ethiopia, Gambia, Ghana, Guinea, Ivory Coast, Kenya, Madagascar, Mauritania, Mauritius, Mozambique, Nigeria, Rwanda, Senegal, Seychelles, Tanzania, Togo, Uganda, Zambia and Zimbabwe
PAHO	1	Bolivia
EURO	12	Armenia, Bosnia and Herzegovina, Kazakhstan, Kosovo, Kyrgyzstan, Republic of Moldova, Montenegro, North Macedonia, Serbia, Tajikistan, Ukraine and Uzbekistan
TOTAL COUNTRIES	**68**	

COVID-19 Interventions for Points of Entry - Screening

- Entry screening at all PoEs (aiports, seaports, ground crossing)
- Affected countries are encouraged to start exit screening
- Follow-up of travelers arriving from high risk areas
- Screening at the Point of Entry should be complemented by a robust national surveillance system to detect cases missed at the PoE

Overall score PoE readiness 70%

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