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COVID-19: Situation, Response, Lessons Learned (Series#2)

Afghanistan | Bhutan | Guatemala | Italy

Date: August 28, 2020 | **Time** 1:30PM GMT | 7:15PM NTP | 3:30PM CET | 6:30AM PST

Dr Ziaulhaq Mansoor Ahrari

Herat Institute of Health Sciences

Afghanistan

Dr. Karma Tenzin

Faculty of Postgraduate Medicine, KGUMSB

Bhutan

Dr. Jose Ortiz

University San Carlos of Guatemala

Guatemala

Francesco Nicoli

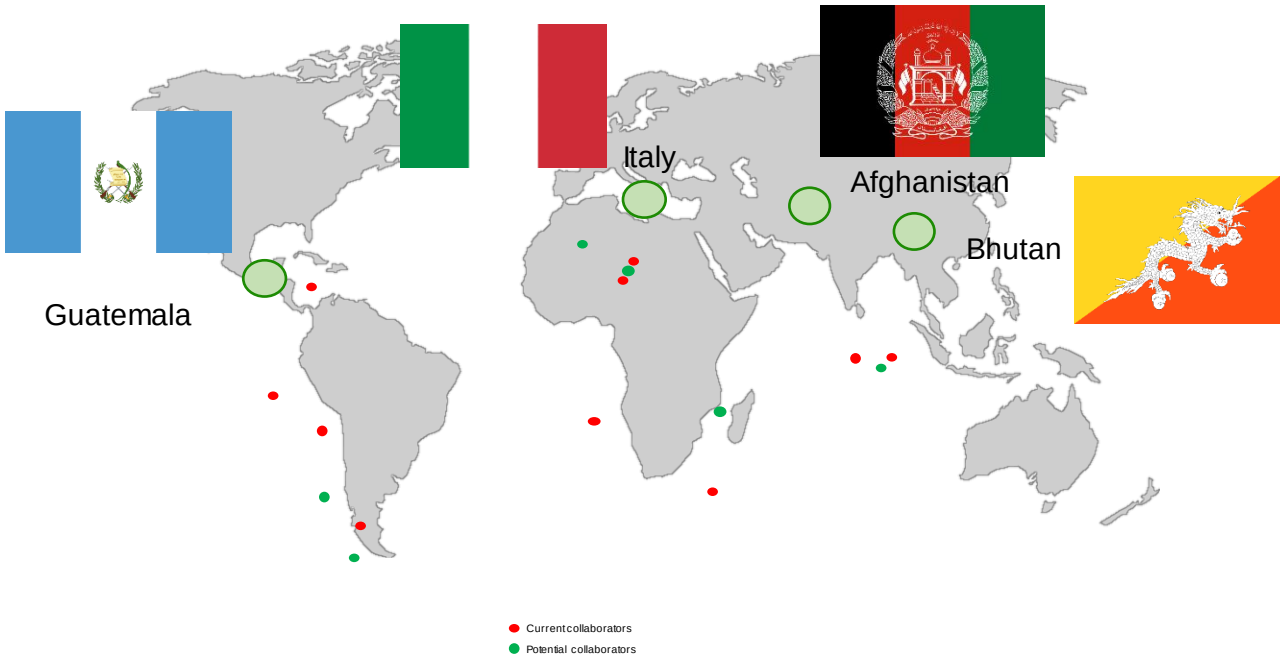
University of Ferrara

Italy

One Health Knowledge Café

- A collaborative effort of more than 11 individuals representing CIH partners and alumni
- Represents Asia, Africa, Europe, South America and North America
- Brings together the expertise and network of researchers and professionals from various disciplines, countries and expertise to enable cross learning, sharing and network building
- Monthly talks, webinars, online courses, discussions
- Supported by LMU^{CIH} through DAAD/Exceed Program, funded by BMZ

Today's presentation



Countries and Speakers

Country	Country info	Speaker info
Afghanistan	Central and South Asia | 32.9 Million| Literacy adult 43% | GDP per capita $ 1,337| 0.3 physician per 1,000 population	**Dr Ziaulhaq Mansoor Ahrari** is a program coordinator at Herat Institute of Health Sciences. He graduated in medicine and has specialty in dermatology. He has worked in different departments such as; Institute of Health Sciences (IHS), Environmental Health , Communicable Diseases Control and Emergency Preparedness and Response
Bhutan	South Asia | 957.4 Thousand| Literacy adult 67% | GDP per capita $ 7,938 | 0.4 physician per 1,000 population	**Dr Karma Tenzin** is a Assistant Professor and Deputy Dean at Faculty of Postgraduate Medicine, KGUMSB. He is one of the pioneer medical and health educationists in Bhutan. Within a short career, he has established himself as the steadfast academician and researchers
Guatemala	North America | 16.9 Million| Literacy adult 81% | GDP per capita $ 7,243 | 0.4 physician per 1,000 population	**Jose Ortiz Dr. Msc** is an Administrator of the SARS CoV 2/ COVID-19 Observatory at Guatemala. He is a Physician and Surgeon, Gynecologist and Obstetrician at University San Carlos of Guatemala-USAC. He is also an Epidemiologist at National Institute of Public Health of Mexico.
Italy	Europe | 60.6 million | Literacy adult 99% | GDP per capita $ 35,078 | 4 physicians per 1000 population	**Dr. Franceso Nicoli** holds a master degree in medicinal Chemistry and a PhD in Medical Research-International Health, with 12-year experience in the field of immunology of infectious diseases.

Sources: https://data.worldbank.org/; www.healthdata.org; www.who.int/workforcealliance

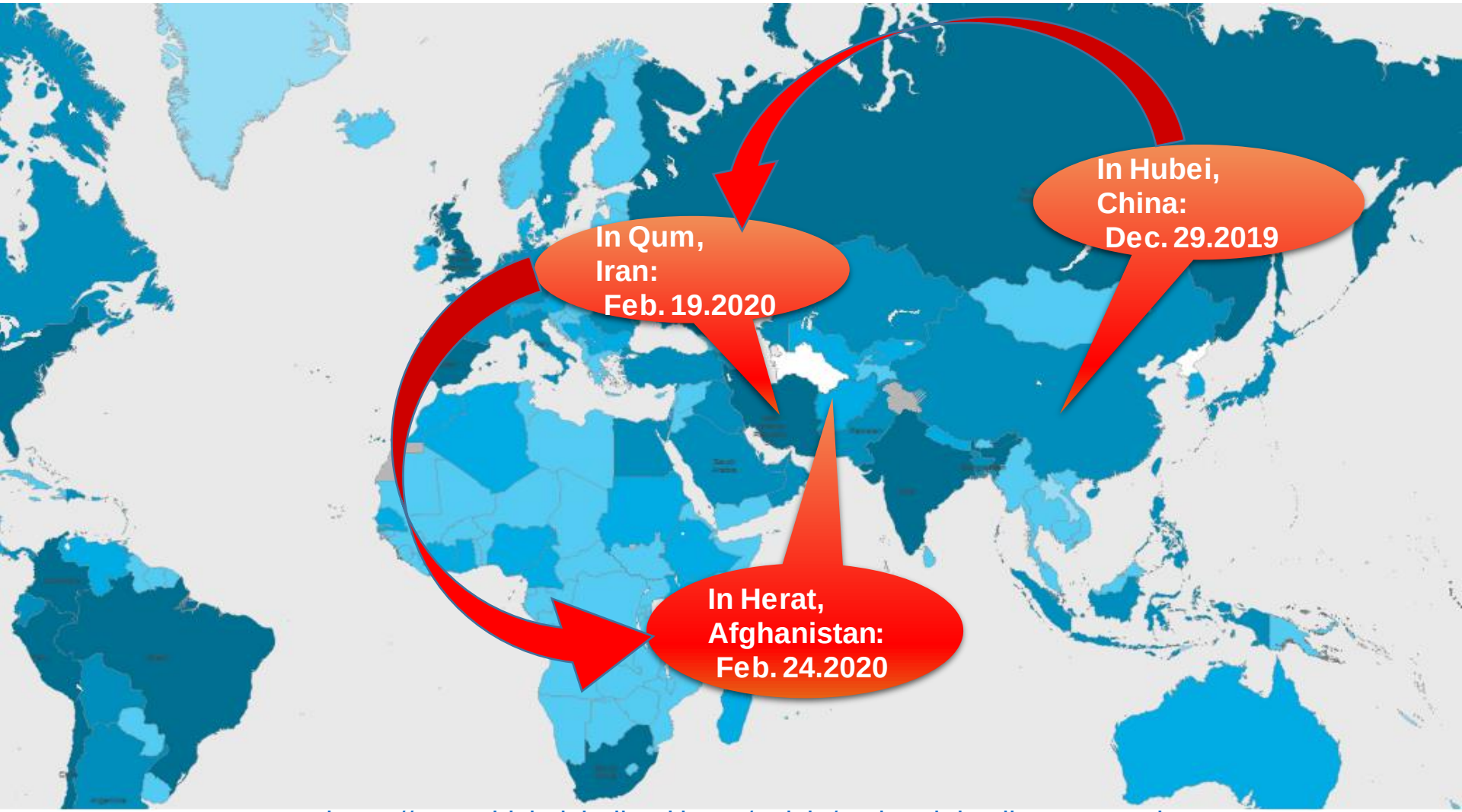
Objectives

- To share current situation of COVID-19, country response and lessons learned across selected countries
- To review and discuss key lessons learned for the global health community
- To establish a better network to promote learning and collaboration among CIH partners, alumni and beyond

COVID-19: Situation, Response, Lessons Learned in Herat, Afghanistan

Ziaulhaq Mansoor Ahrari, MD
Institute of Health Sciences, Herat, Afghanistan

COVID-19 situation: The first confirmed cases



https://www.thinkglobalhealth.org/article/updated-timeline-coronavirus

https://ourworldindata.org/country/afghanistan

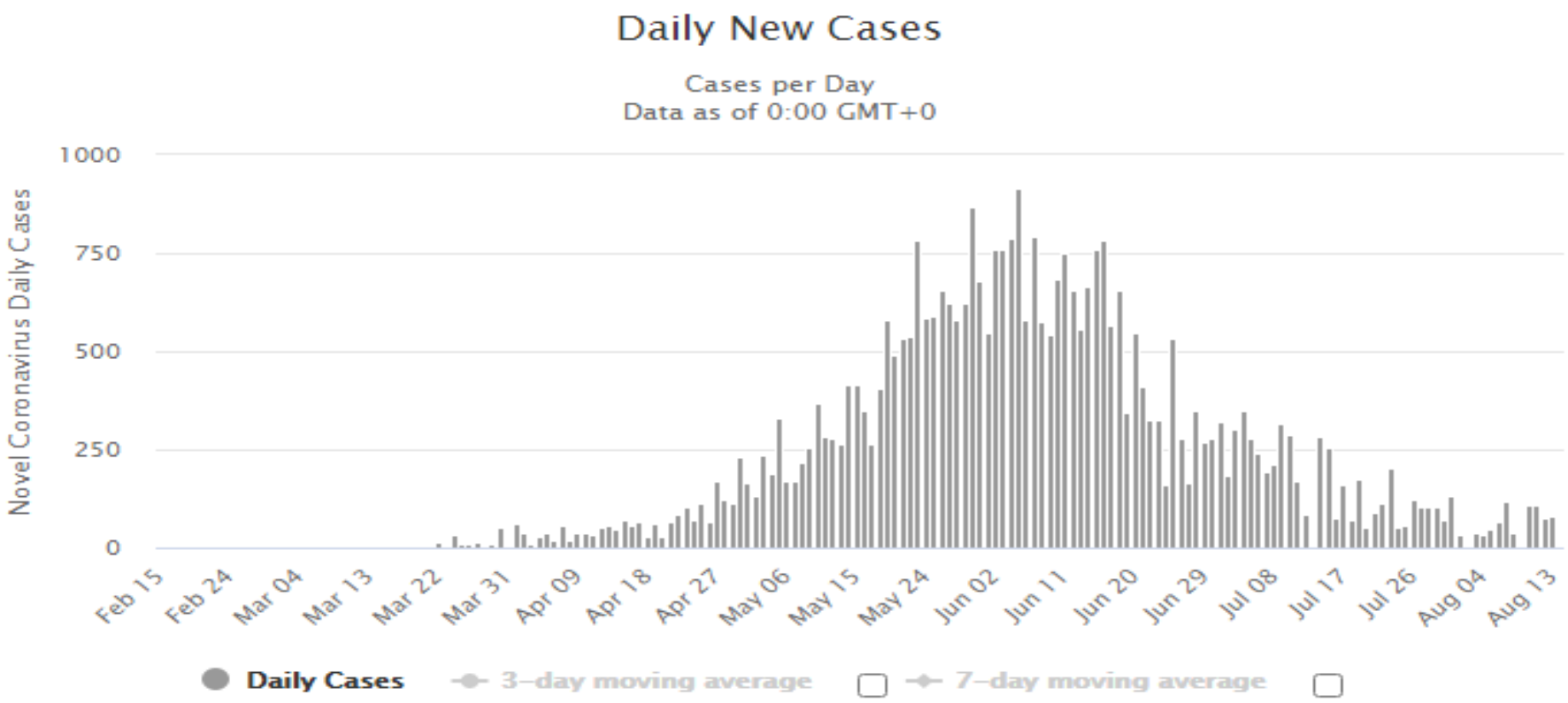
COVID-19 situation…
A comparison among four countries, Aug. 23

Country	Total Cases	Recovered	Deaths	Deaths /1M pop	Tests /1M pop
Afghanistan	37,953	28,016	1,385	35	2,578
Iran	356,792	307,702	20,502	244	35,787
Pakistan	292,174	275,317	6,231	28	10,903
Italy	258,136	205,203	35,430	586	131,355

https://www.worldometers.info/coronavirus/#countries

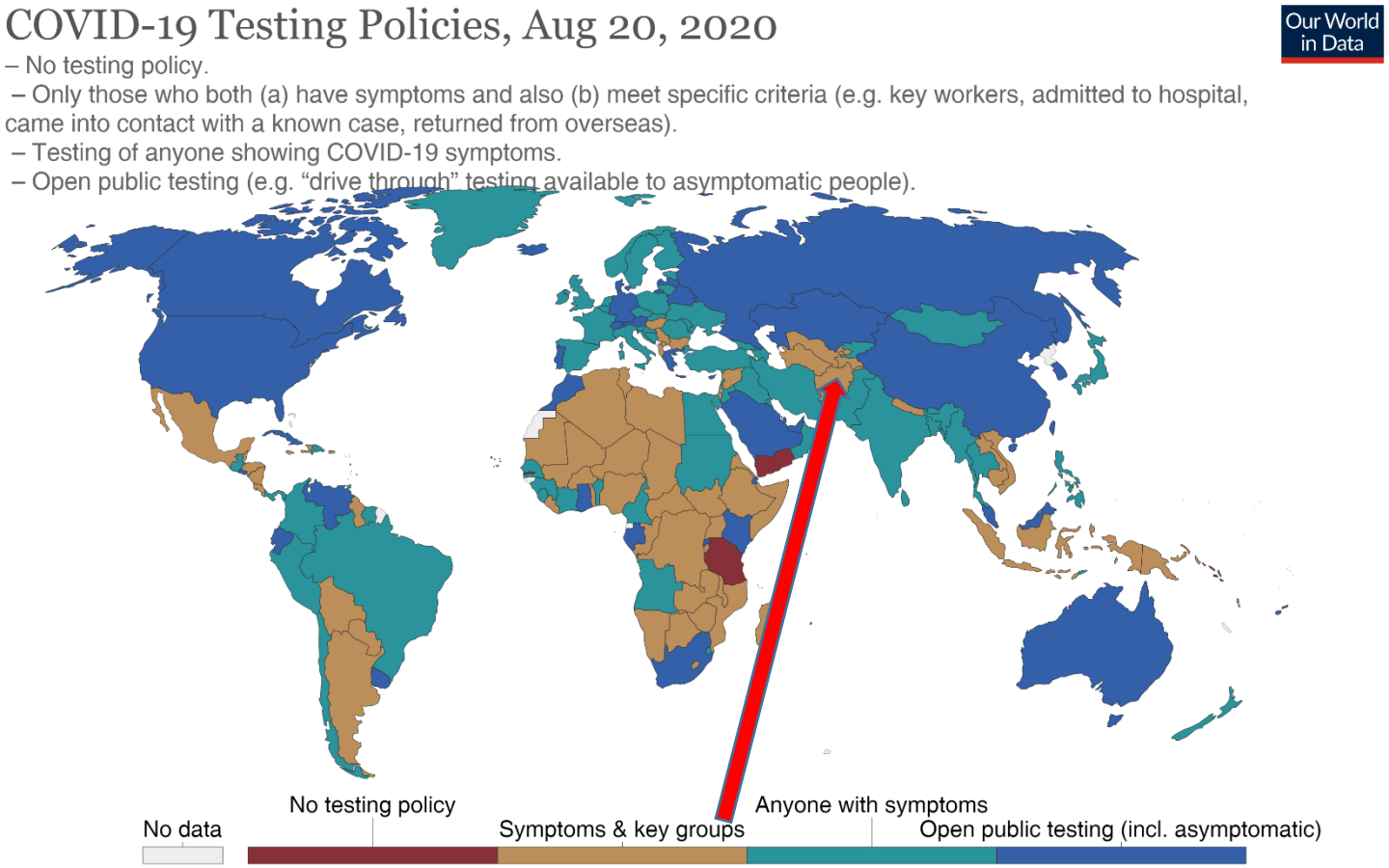
COVID-19 situation…

Daily New Cases in Afghanistan



https://www.worldometers.info/coronavirus/#countries

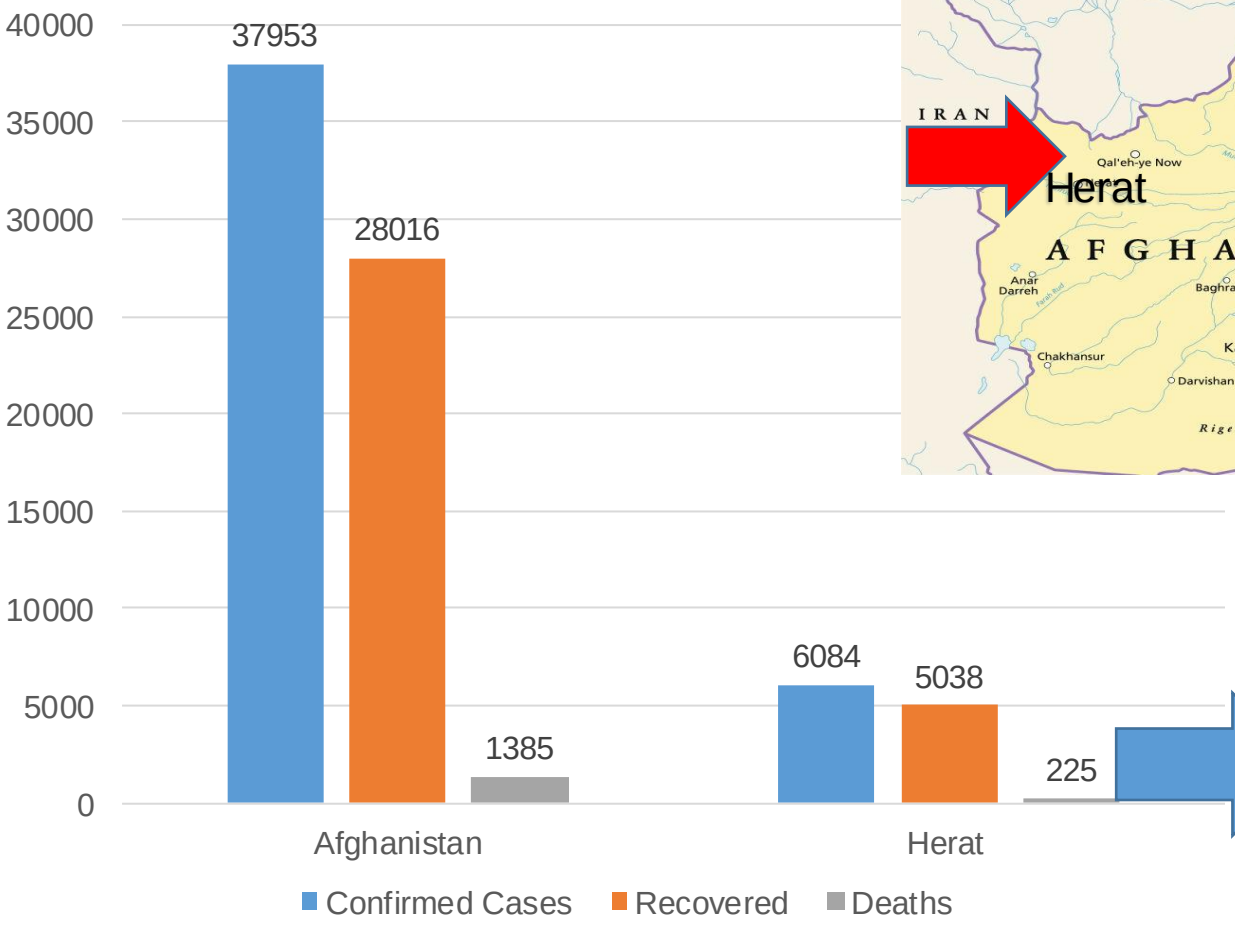
COVID-19 situation…
Testing policy

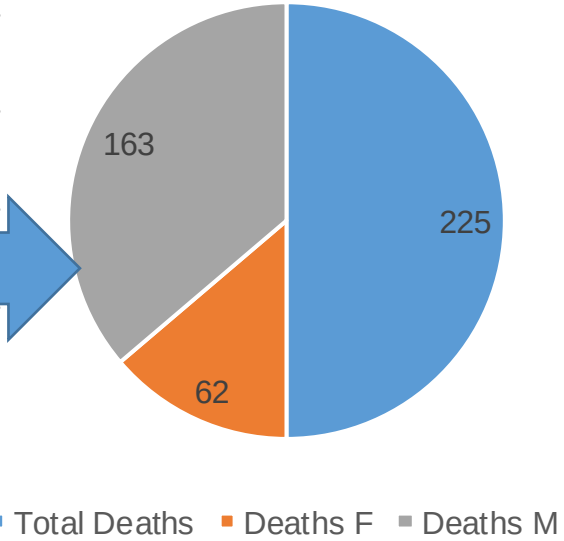


https://ourworldindata.org/coronavirus-testing

COVID-19 situation…

Total Confirmed Cases in Afghanistan vs. Herat Province





Key interventions/responses

- In Preparedness level
  - **Emergency committee** (in top level)
  - **EPR Committee** (in Public Health System)
  - Provincial **Center for management** of Covid-19
  - Budget allocation
- In Response level
  - Detecting **the first case** in our province (Herat)
  - **Training**
  - **Hospitals** for suspected and confirmed cases
  - Establishing **Case finding**, **Contact Tracing**, **Case Management**, **Disinfection** and **Screening Teams**
  - Revising the **Testing Protocol**
  - **Call Center**
  - **Quarantine** (social distancing and mobility restriction)
  - **Burying corpses** in caskets with respect to the traditions
  - Most of collective **religious events** and ceremonies were canceled

Key interventions/responses…

First Covid-19 Hospital

Testing lab

Health Education

Border screening

Call Center in order to direct contact with the community

Lessons Learned

- Information, Education and Communication play a great role to prevent Stigma and Rumors
- Parallel activities should be coordinated
- People are really supportive if they are aware of Covid-19
- Rumors create problems in the system
- Procurement Process (should be simplified in emergency situation like Covid-19)
- Corruption deteriorates the health system to control Covid-19.
- Poverty is barrier to implement the quarantine.
- Transparency
- Multi sectoral cooperation is crucial
- Commitment of all stakeholders

Considerations

- Lack of clear protocols and guidelines to manage covid-19 cases
- Early detection
- Lack of expertise and equipment
- Coordination from central level is a challenge
- The situation in PHC level is worse
- Security is a key factor for a better health care services.
- Global Responsibility (Covid-19 management)

Points for Q&A session

- How many cases of Covid-19 are really detected?
- How long will this situation with Covid-19 last?
- Will the vaccine bring the situation under control?

Thanks

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COVID-19: Situation, Response, Lessons Learned in Bhutan

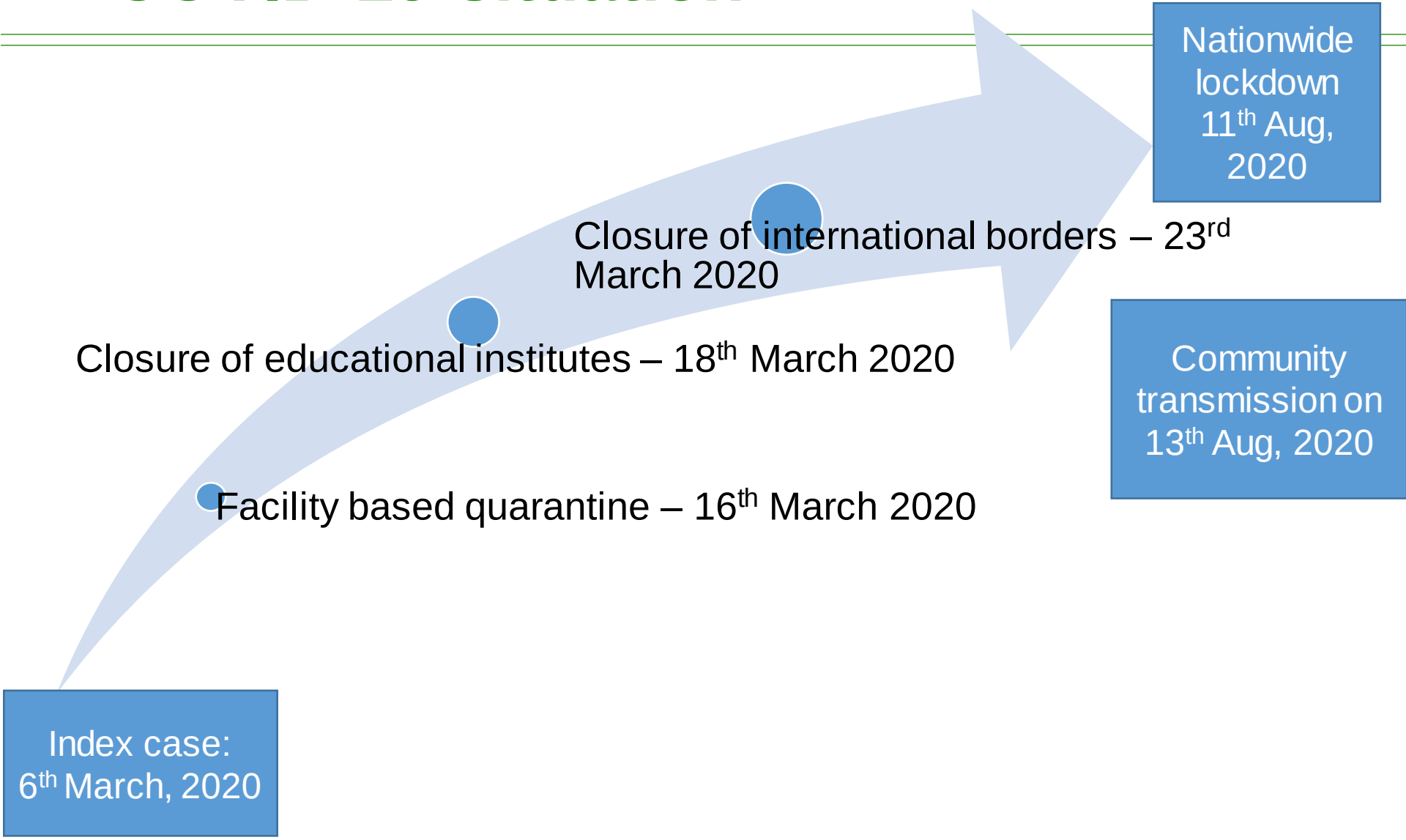
Dr. Karma Tenzin (MBBS, MD, Fellowship in Med. Education)

Assistant Professor and Dy. Dean, Academic Affairs

Head, Centre for Research in Respiratory and Neurosciences

Faculty of Postgraduate Medicine, KGUMSB, Bhutan

COVID-19 situation

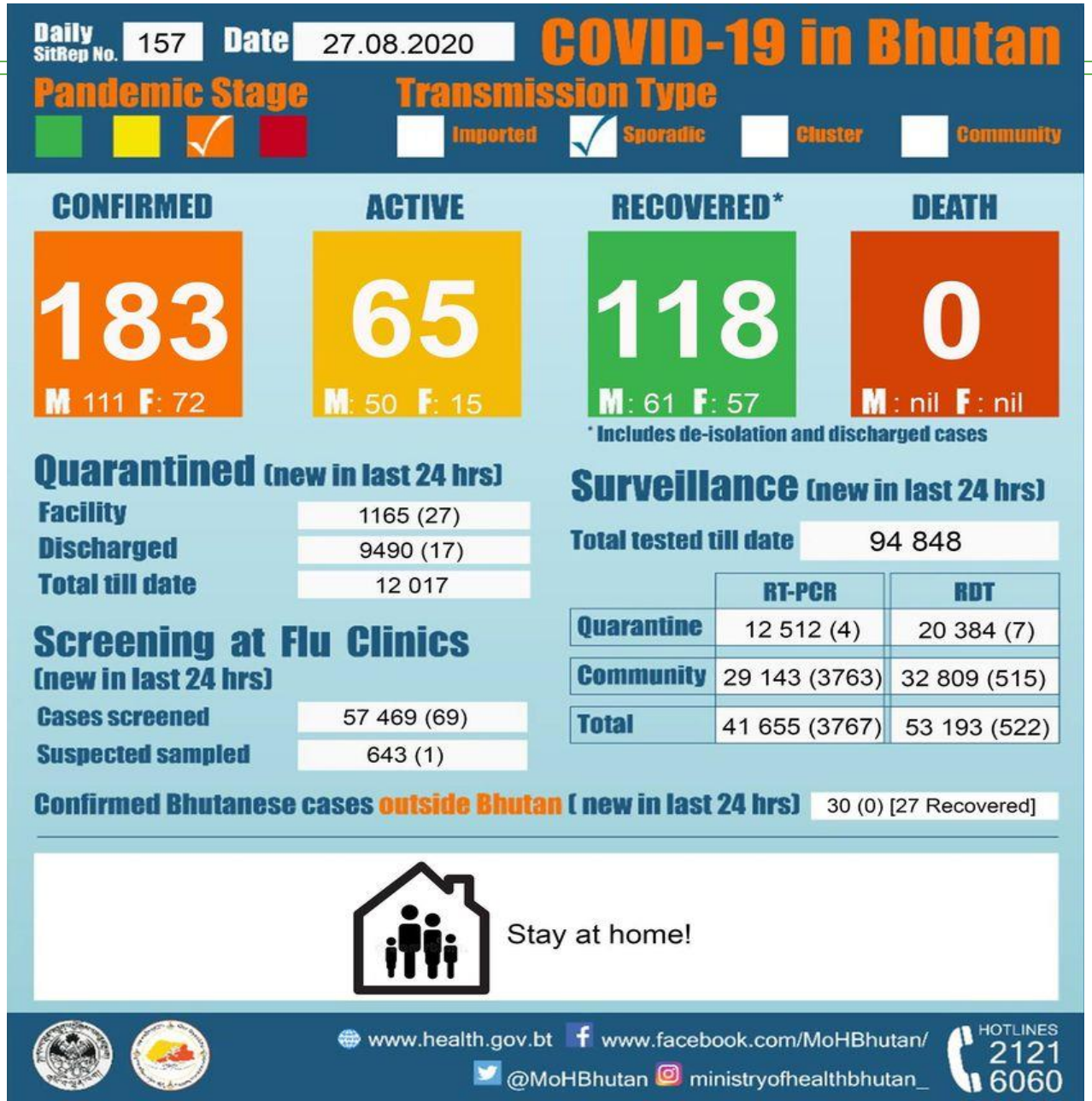


COVID-19 situation

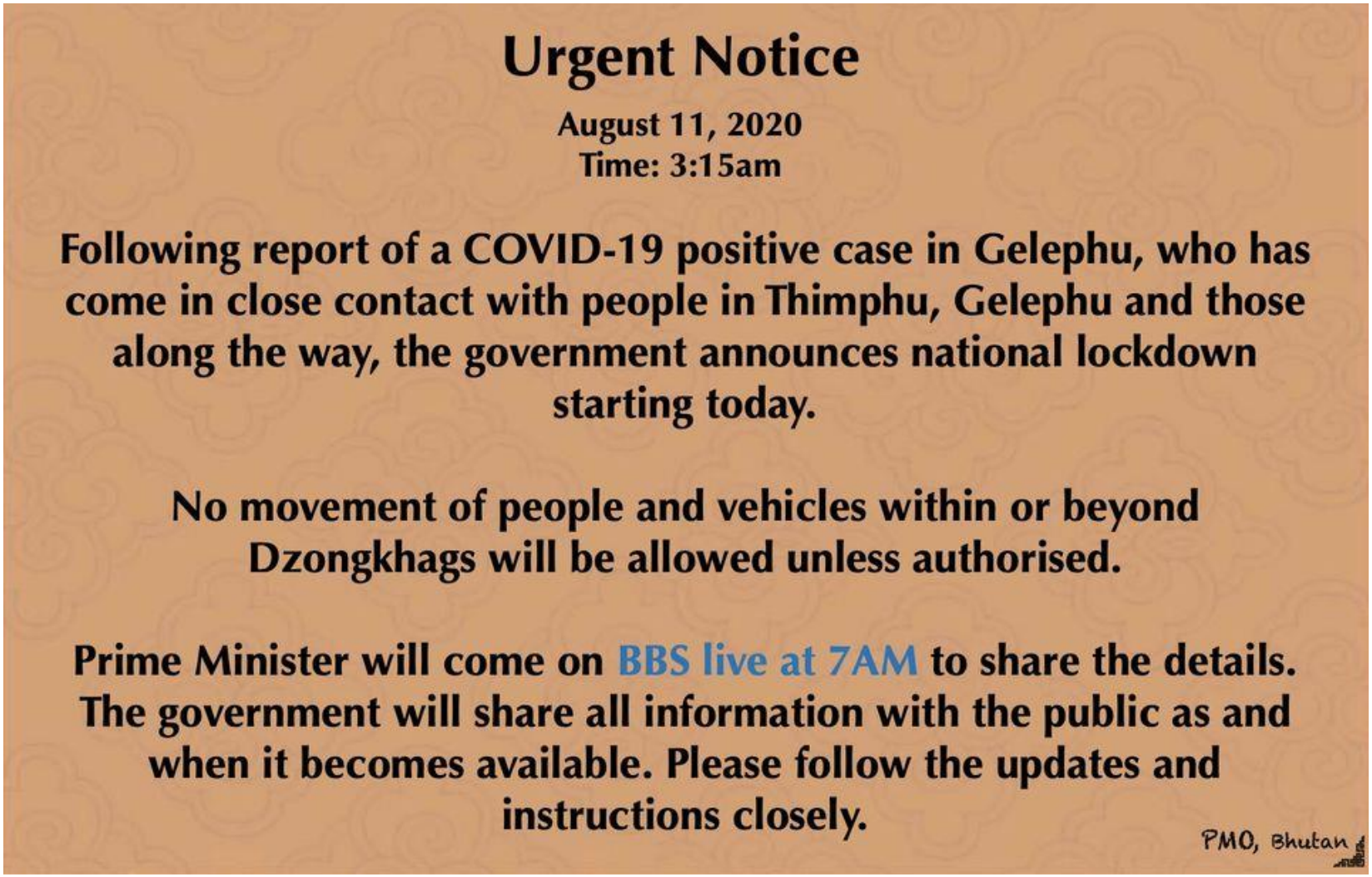
COVID-19 situation

COVID-19 situation

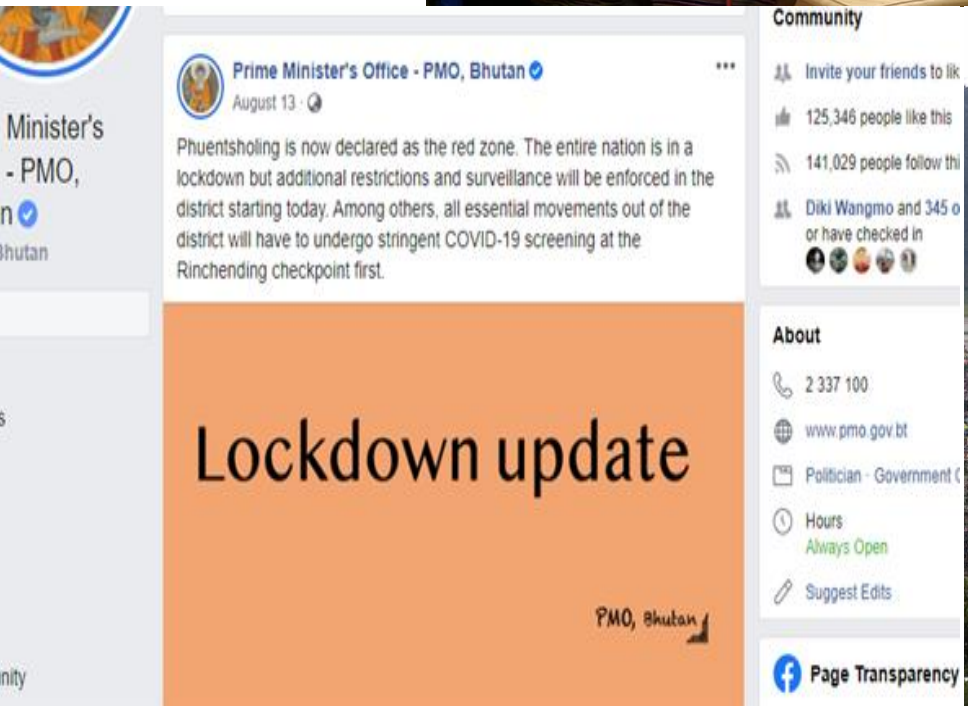
COVID-19 situation



Key interventions/responses



Key interventions/responses



ROYAL CENTRE FOR DISEASE CONTROL

COVID-19 IgM

Key interventions/responses

Announcement

For Thimphu residents with travel history from Phuntsholing on or after 1st August 2020 till date, the Ministry of Health is pleased to announce that there are 10 COVID-19 Testing Station identified in 7 Super Zones where samples will be collected starting tomorrow **(21 August 2020)**. Kindly, take your COVID-19 Movement Pass and get yourself tested on the specified time mentioned on your movement pass. And for those whose super zones are not listed below, our surveillance team will call you anytime for the test, keep your phones near you.

Sl.No	Super Zone	Zone	COVID-19 Testing Station
1	Changbangdu	Changbangdu	Bhutan Football Federation Ground, Changjiji
		Changjiji	
2	Changzamtok	Changgidaphu	Druk School
		Lower Changzamtok	
		Upper Changzamtok	
3	YHS	Yangchenphu Area	RSTA Bus Counter, Lungtenzampa
4	Core	Norzin Tag	HISC
		Norzin Wog	Taryana Center
			Kelki HSS
5	Motithang	Changgangkha	Jigme Namgyel School
		Upper Motithang	
		Lower Motithang (Kawang Damisa)	
6	Zilukha	Kawajangsa	ECB Head Office
		Zilukha	Zilukha School
7	Hejo Samtenling	Hejo Village	Bebena Sports Complex
		Langjophakha	
		Lower Samtenling	
		Upper Samtenling	

FOR MORE INFORMATION : HOTLINES 2121 6060

www.health.gov.bt www.facebook.com/MoHBhutan/ @MoHBhutan ministryofhealthbhutan_

Key interventions/responses

Hotlines for Eastern Dzongkhags COVID19 Control Rooms (CRs):

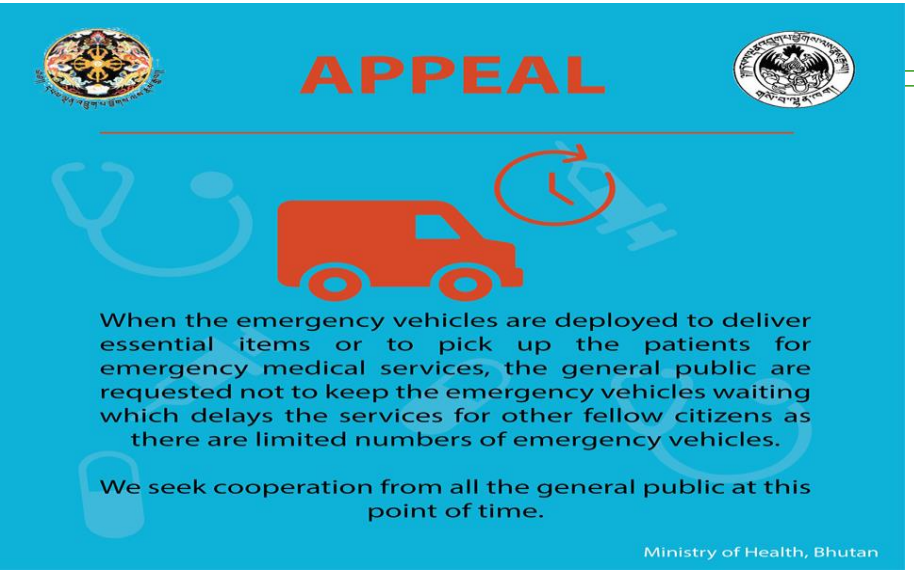
1. Lhuntse Dzongkhag 1225
2. Mongar Dzongkhag 1239
3. Pemagatshel Dzongkhag 1241
4. Samdrupjongkhar Dzongkhag 1192
5. Trashigang Dzongkhag 1198
6. Trashiyangtse Dzongkhag 1247
7. Jomotshangkha Drungkhag 1210
8. Nganglam Drungkhag 1195
9. Samdrupcholing Drungkhag 1191
10. Eastern COVID19 Coordination Office (ECCO), Dewathang 4141

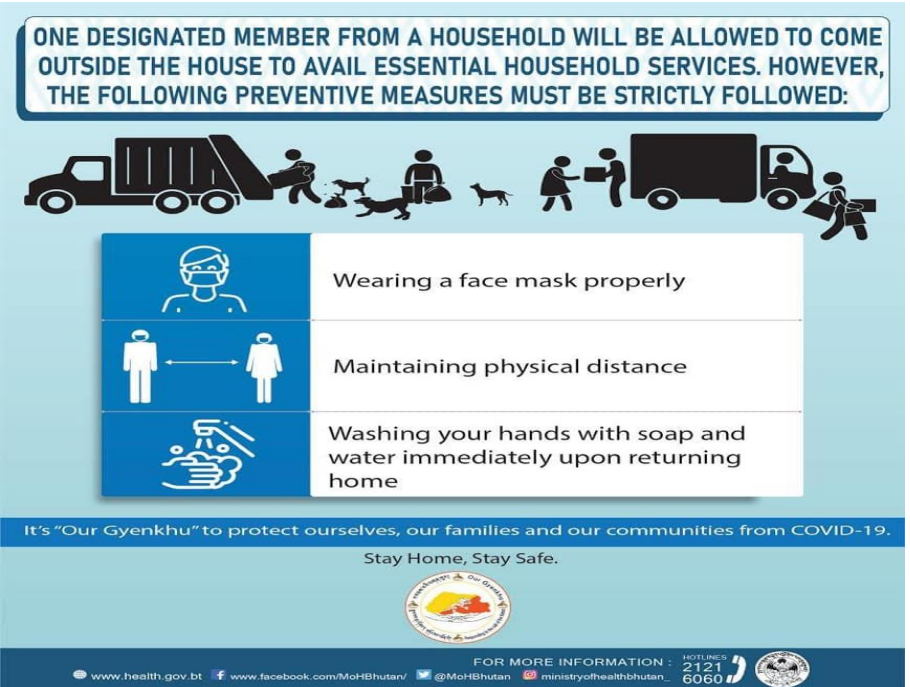
112 and 2121- hotlines for health services

1023- hotline for COVID enquires

6060 – Hotline for Senior citizen related health services

Key interventions/responses



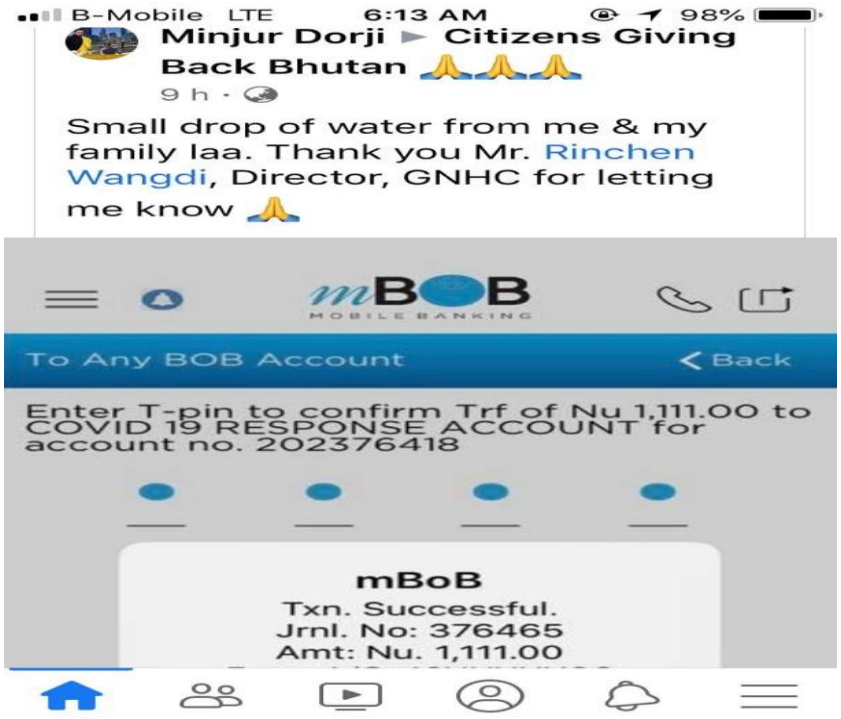


Lessons Learned

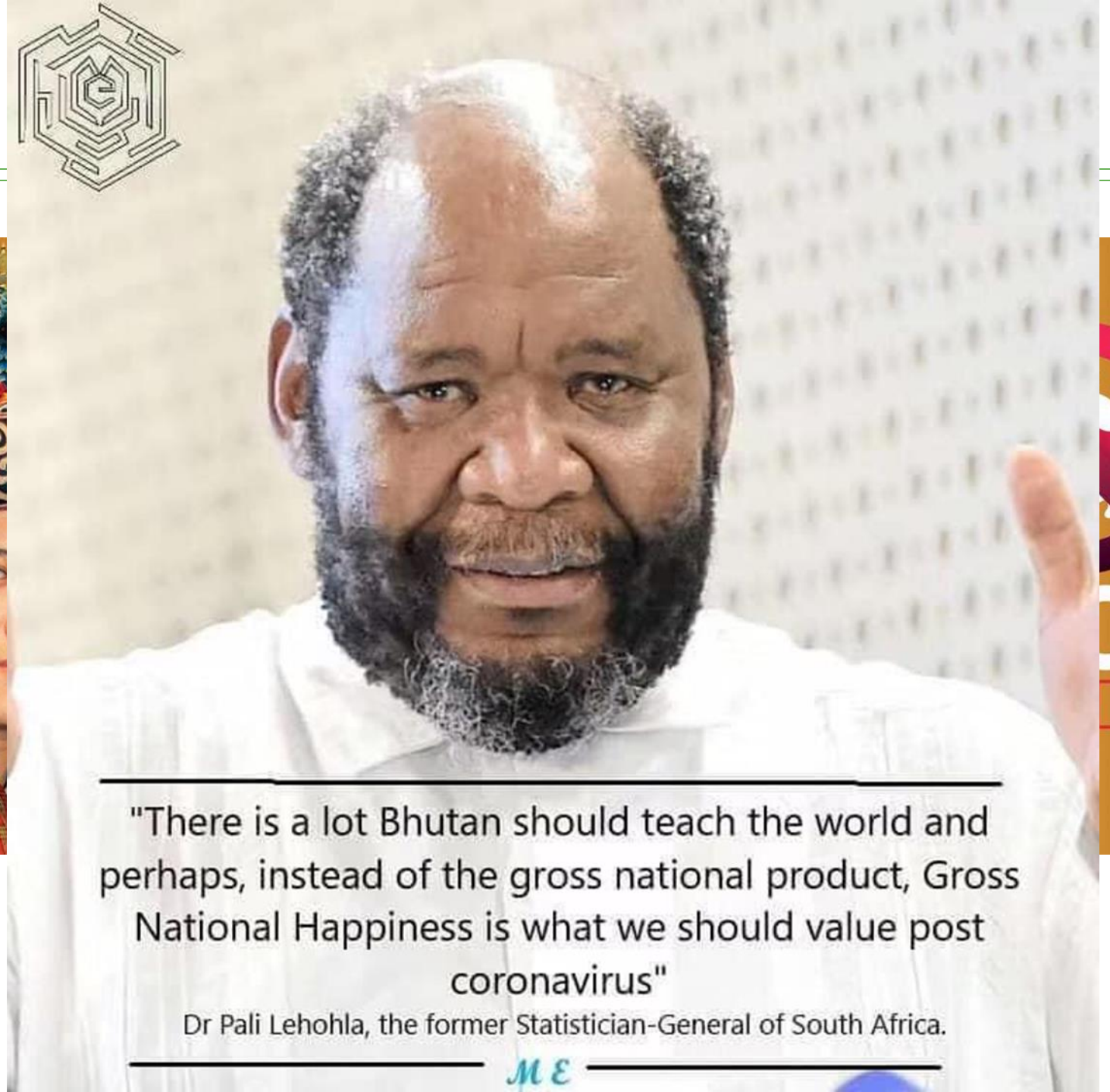
- *Smallness is an advantage and Bhutanese are empathic by nature*

1. Volunteerism/Collectivism – Taxis transport COVID-19 samples
2. Desuups : volunteering fully in all areas of life to support community
3. Free quarantine : 21 days of free facility based quarantine
4. Young people : Volunteered to work at Mini-Dry Port, Pling.
5. Citizen Initiative : Citizen's giving back, Bhutan initiative
6. Her Majesty, the Queen of Bhutan ; Baking and distributing refreshments for volunteers all around the Capital and nearby
7. His majesty, the King : Touring the country 3 times since March 2020 on foot and meeting people
8. King's project : To feed the stray dogs through out the country
9. King's relief fund : distress families

Lessons Learned



- Urgent need for a medical school
- Convenient marriage political masters and medical fraternity
- Time to revisit the concept of disease, diagnosis and treatment


"There is a lot Bhutan should teach the world and perhaps, instead of the gross national product, Gross National Happiness is what we should value post coronavirus"
Dr Pali Lehohla, the former Statistician-General of South Africa.
ME

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D-19

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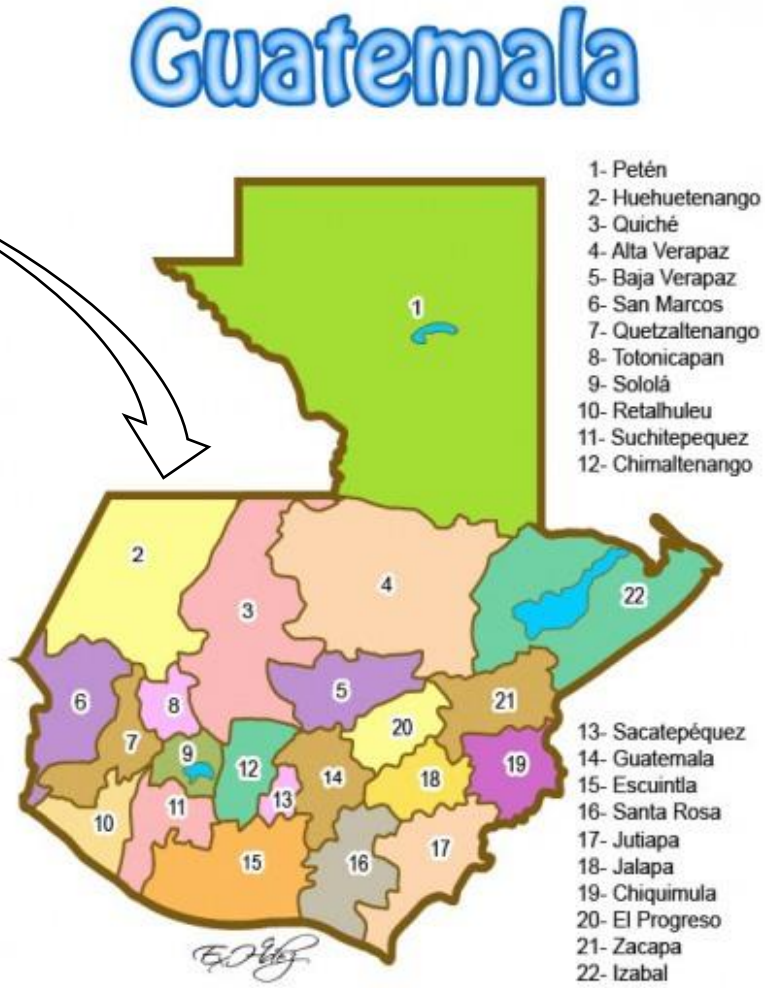
COVID-19: Situation, Response, Lessons Learned in Guatemala

José Ortíz Dr. Msc.

Pandemia Observatory SarsCov-2/Covid-19

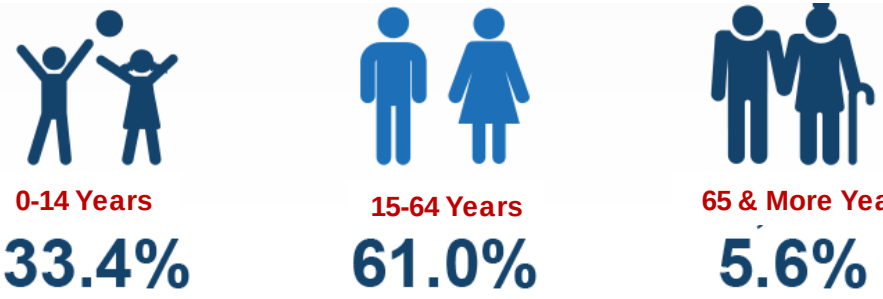
Guatemala, Central America

Geographic Situation



General Demographic Profile

Total Population and Large Age Groups



Guatemala Pandemic Status as of August 27, 2020

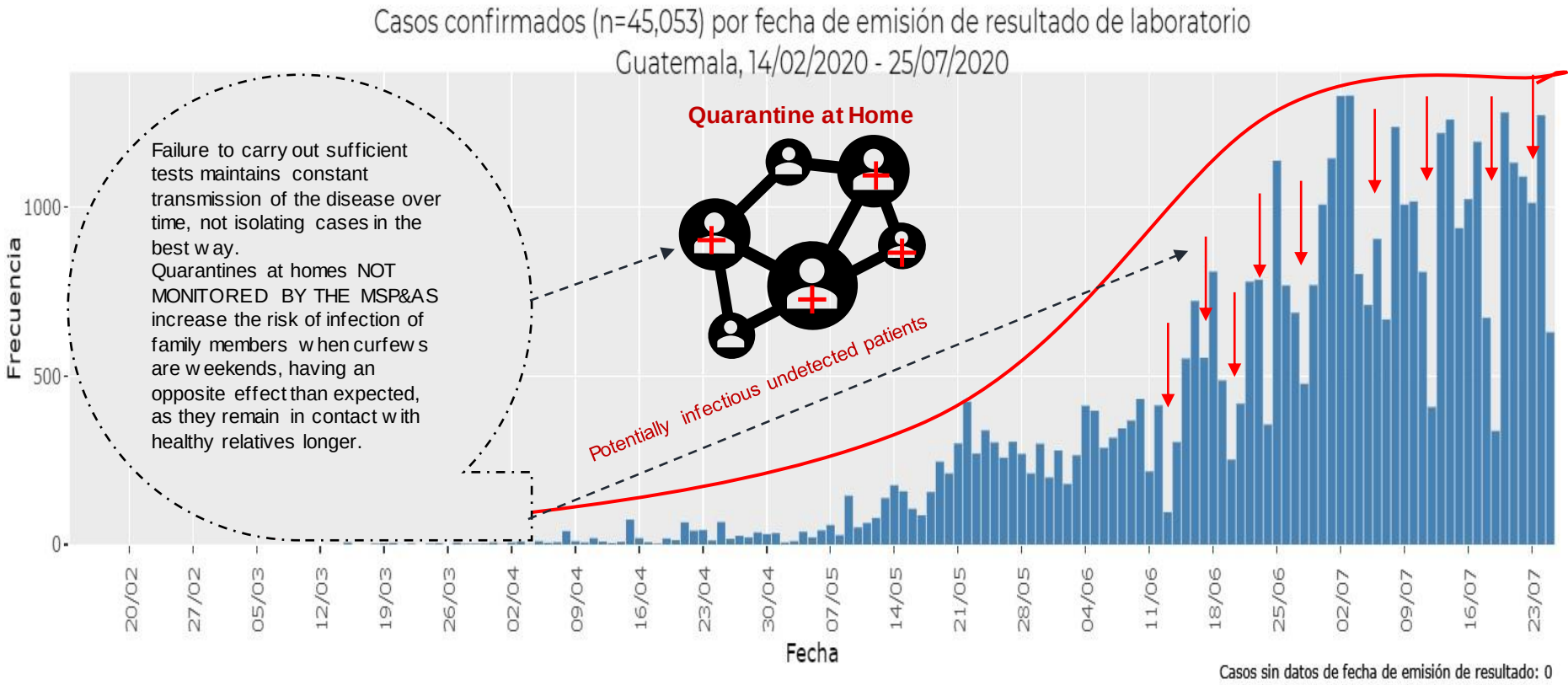
Active Cases	9,350
Accumulated Cases Recorded	71,856
Recovered Cases	59,641
Deceased Cases	2,685
Cumulative incidence per 100,000 hab.	426.32
Mortality rate per 100,000 hab.	15.9
Lethality	3.70%

Insufficient Number of Tests For Covid-19

Cuadro de datos

Sars-Cov2/Covid-19 Observatory, Guatemala

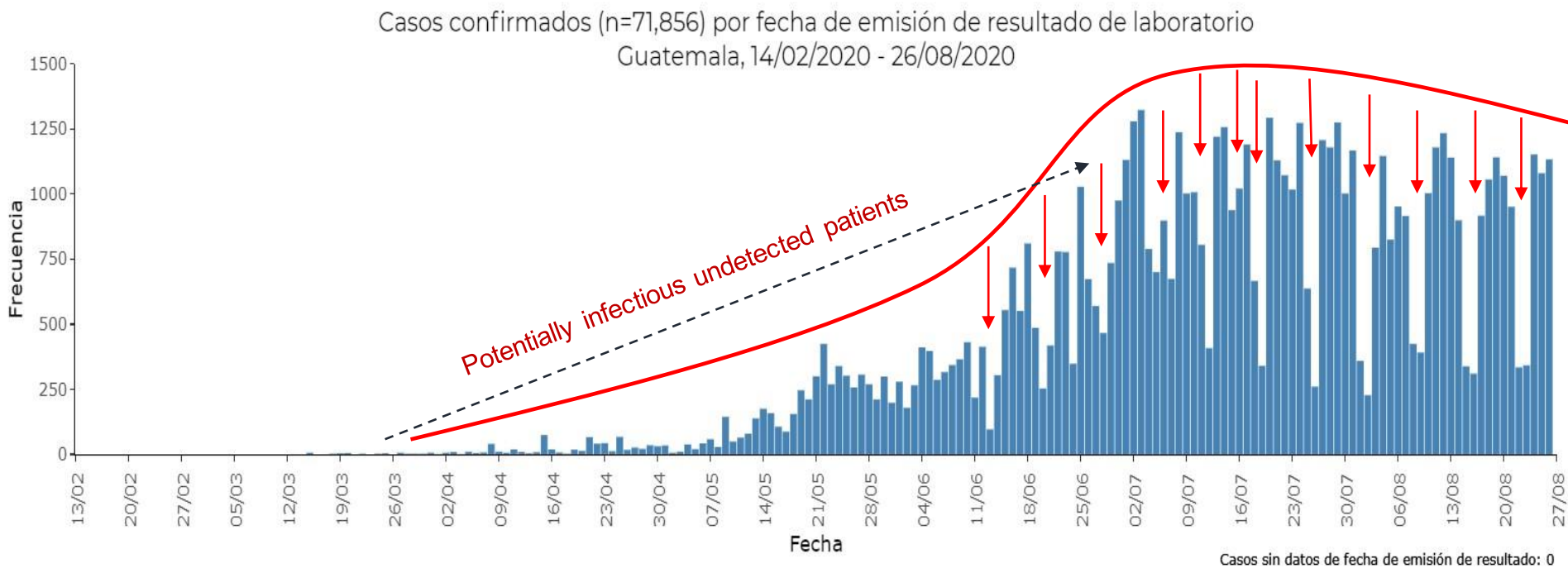
José Ortiz Dr. Administrador



Sustained Transmission of SarsCov-2 / Covid-19 Disease

Casos confirmados por fecha de emisión de resultados | Casos confirmados por fecha de inicio de síntomas | Casos confirmados por fecha de toma de muestra

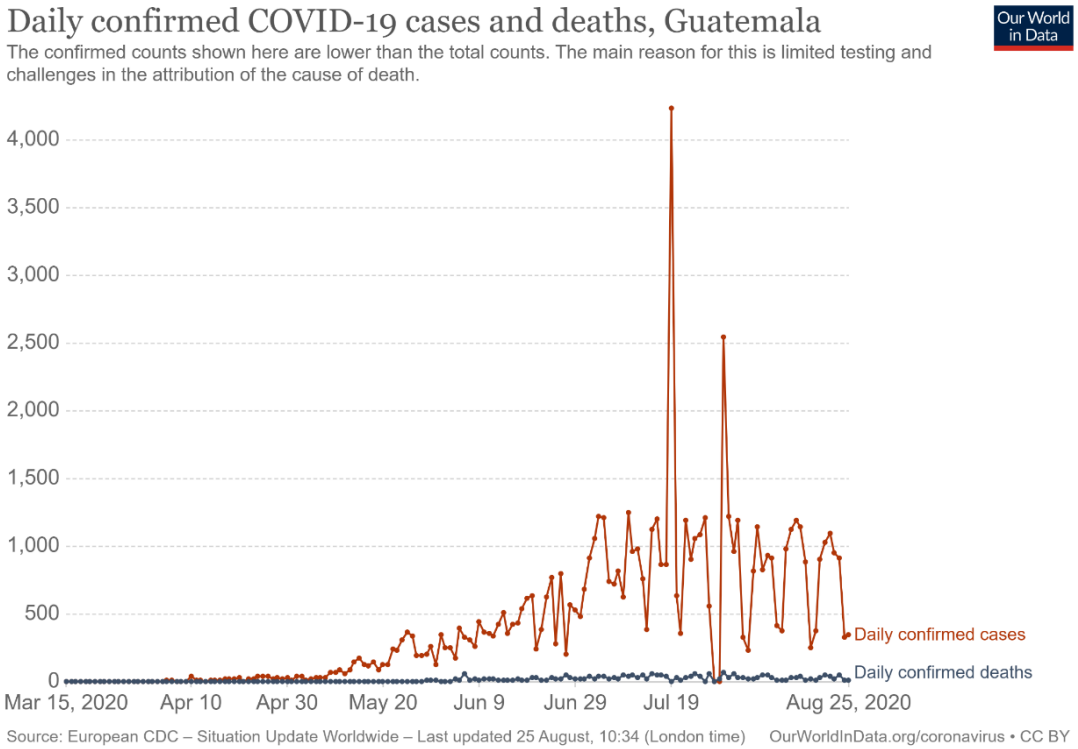
Cuadro de datos



Search of the Ideal Number of Sars-Cov-2/Covid-19 Tests:

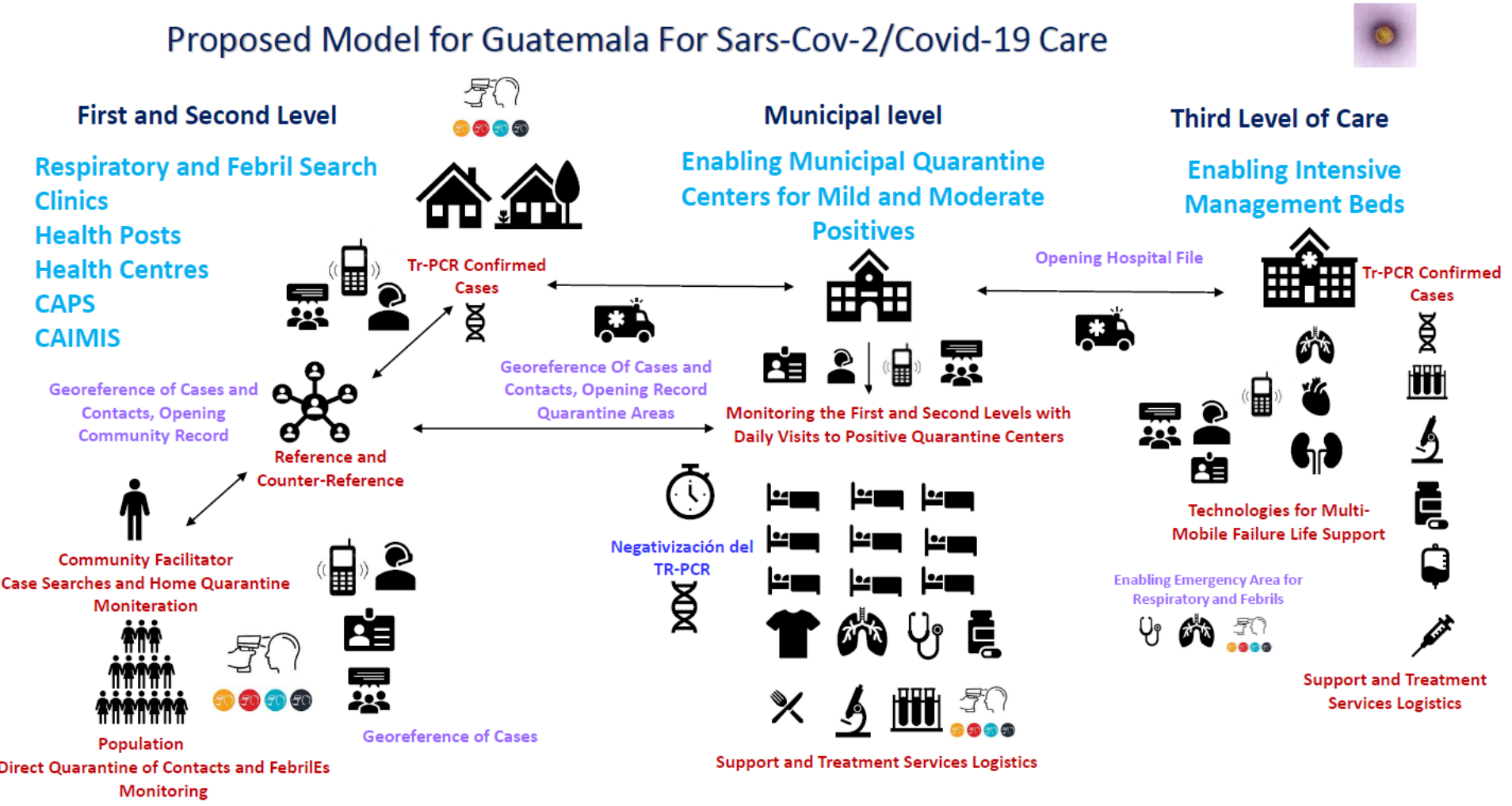
	Escenario 1 No Interventions	Escenario 2 Total Hospitalizations with the mortality rate of 1.6 x 100,000 per week	Escenario 3 Total Hospitalizations with the mortality rate of 0.2 x 100,000 per week
First Wave	6,323,004	3,303,769	948,182
Daily Testing	35,128	18,354	5,268
Second Wave	5,510,046	2,878,999	826,273
Third Wave	4,335,774	2,265,442	650,182
Total	16,203,952	8,466,565	2,429,904

¿Can the Republic of Guatemala replicate the Model of China developed in its Municipalities and Provinces?



1. Much of the world community is not yet prepared, mentally and materially, to implement the measures that have been used to contain COVID-19 in China.
2. These are the only measures that are currently proven to disrupt or minimize human transmission chains.
3. Fundamental to these measures is extremely proactive surveillance to detect cases immediately, very rapid diagnosis and immediate isolation of cases, rigorous monitoring and quarantine of close contacts, and an exceptionally high degree of understanding and acceptance of these measures by the population.
4. The time that can be earned by fully applying these measures, even if it is only days or weeks, can be invaluable in ultimately reducing diseases and deaths by COVID-19. This is evident in the large increase in knowledge, approaches and even tools that have taken place in just 7 weeks since this virus was discovered through the rapid scientific work that has been done in China.

Proposed Model Of Health Care For Guatemala Municipal Quarantine Centers



Observatory General Aspects

Sars-Cov-2 / Covid-19 Pandemic Observatory, Guatemala

Start in Wuhan, China | SarsCov-2 Structure | Immune Responses | Sars-Cov-2 / Covid-19 Transmission Surfaces

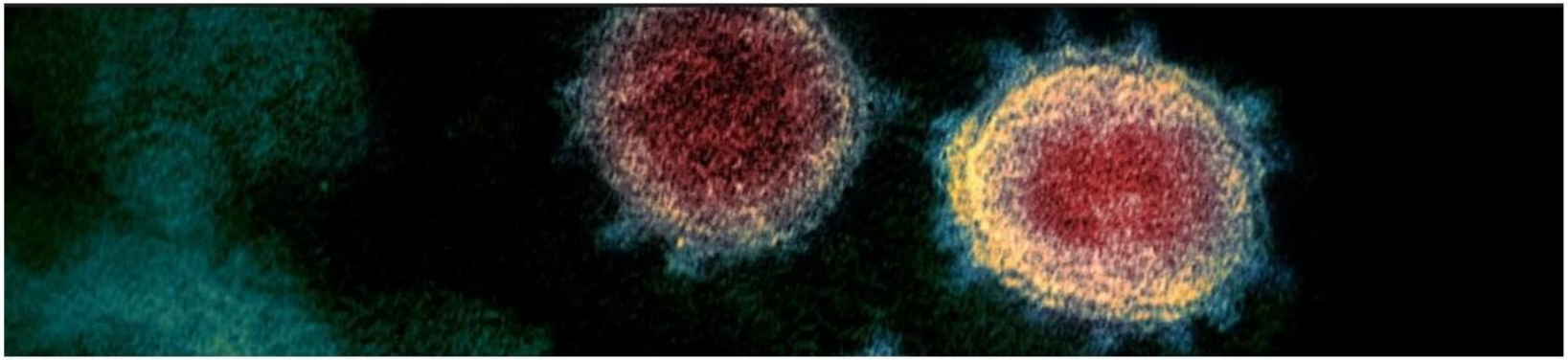
Physiology of Sneezing, New !! | Visualization of droplets of oral fluid, New !! | Pathophysiology of ARDS New !!

Covid-19 mild or moderate, New !! | Clinical manifestations | SARS-CoV-2 infection in children, New !! | Treatment

Anesthesia | New EPP !! | Social distancing | Mathematical Models | Scenarios in Guatemala New !!

New World Viewpoint !! | MMR Vaccine May Protect Against Worst Symptoms of COVID-19

Inhibition of Bruton tyrosine kinase in patients with severe COVID-19, New !! | Contact



The COVID-19 Vaccine Development Outlook

José Ortiz Dr. Msc.

Administrator of the SarsCov2 / Covid-19 Observatory, Guatemala

Download Article:

EDITOR

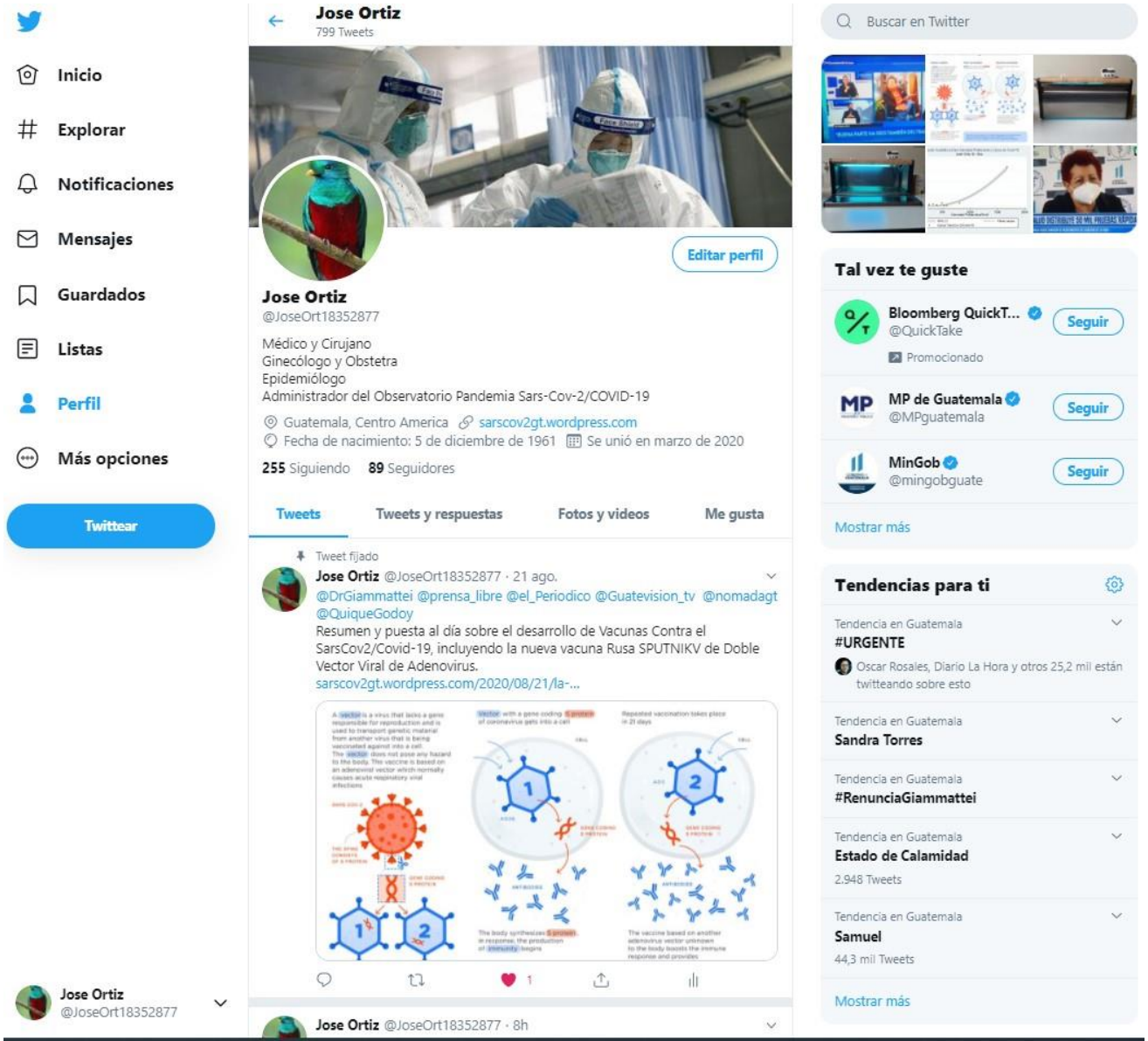
José Ortíz Dr. Msc.

Physician and Surgeon, USAC Gynecologist and Obstetrician, USAC

Epidemiologist, National Institute of Public Health of Mexico

- Area of Concentration: Demographic Methods and

Observatory General Aspects



Population Density as a Tool to Prioritize Municipalities in the SarsCov-2 / Covid-19 Screening in Guatemala

Population Density as a Determinant to Prioritize SarsCov-2 / Covid-19 Screening

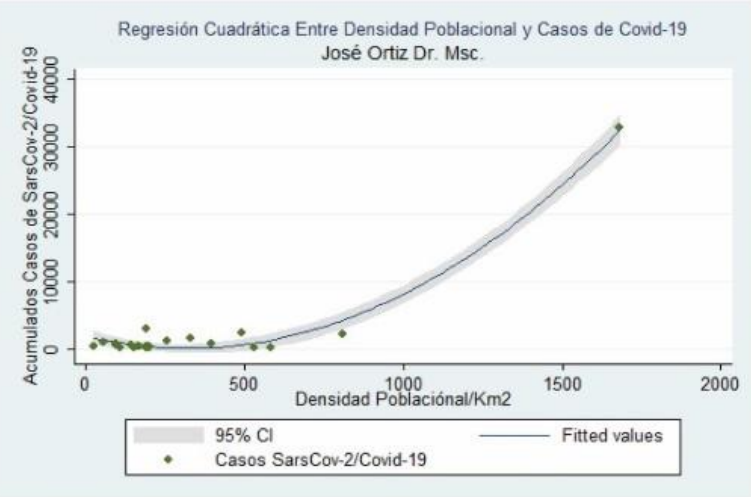
Author: José Ortiz Dr. Msc.

Administrator of the SarsCov2 / Covid-19 Observatory

Editorial

In the absence of an active and accurate Epidemiological Surveillance System, the epidemiologist must seek alternatives to prioritize the screening of the 346 municipalities that the Republic of Guatemala has.

Exploring the data from the Covid-19 Data Board of the Ministry of Public Health and Social Assistance -MSPAS- and Population Density Data of the National Institute of Statistics -INE- for the year 2020, the information could be explored, achieving a Modeling of Quadratic Regression, obtaining the following results, See Graph No. 1



Graph No. 1

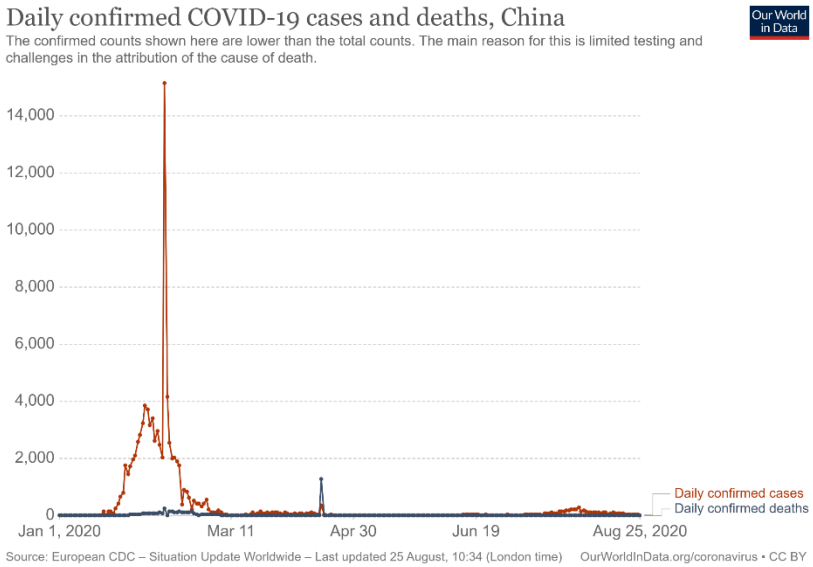
Relevant Publications and Editorials

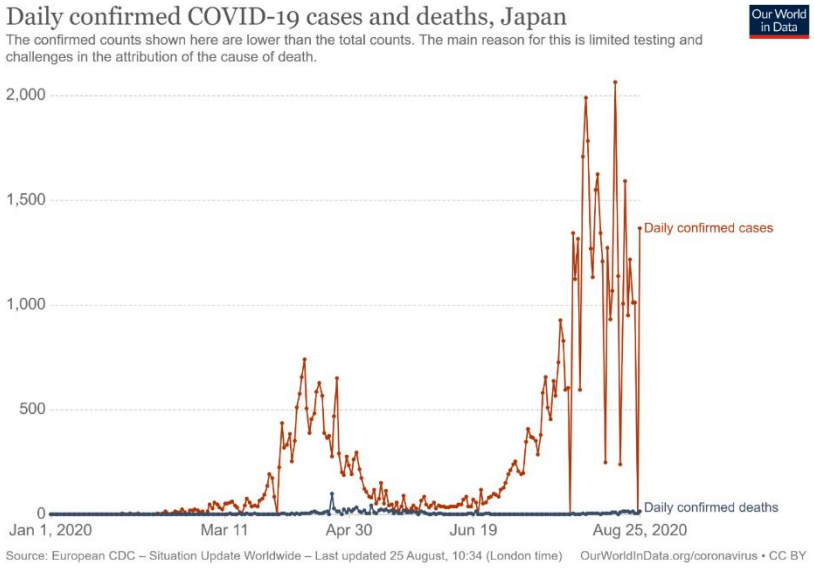
- The COVID-19 Vaccine Development Outlook August 21, 2020
- Population Density as a Tool to Prioritize Municipalities in the SarsCov-2 / Covid-19 Screening in Guatemala August 9, 2020
- Population Density as a Determinant to Prioritize SarsCov-2 / Covid-19 Screening August 2, 2020
- Reopening In A Country With A Ministry Of Health Without Guidance And Leadership And Quarantines With No Effect On The Flattening Of The Curve July 26, 2020
- Guatemala With Resilience and De-escalation Without Meaning July 22, 2020
- Future Scenarios of the SarsCov-2 / Covid-19 Pandemic in Guatemala July 14, 2020
- The FDA advises consumers not to use hand sanitizer products that have been manufactured by Eskbiochem June 27, 2020
- Respiratory transmission of SARS-CoV-2 in the hospital June 25, 2020
- Counseling on the use of immunodiagnostic tests at the point of care for COVID-19 June 11, 2020
- RAPID TESTS FOR SARSCOV-2 / COVID-19 NOT VALIDATED AS A RISK TO MEASURE THE MAGNITUDE OF THE PANDEMIC WITH FALSE NEGATIVE RESULTS June 10, 2020
- Waiting for Certainty in Covid-19 Antibody Testing: At What Cost? June 6, 2020
- Guatemala As A Bad Imitator Of Interventions In The SarsCov-2 / Covid-19 Pandemic June 4, 2020

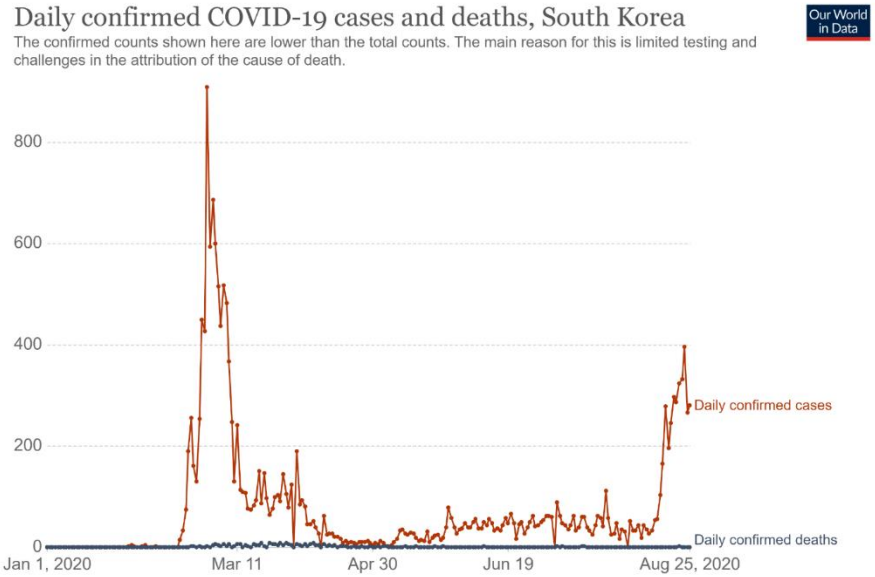
Relevant Publications and Editorials

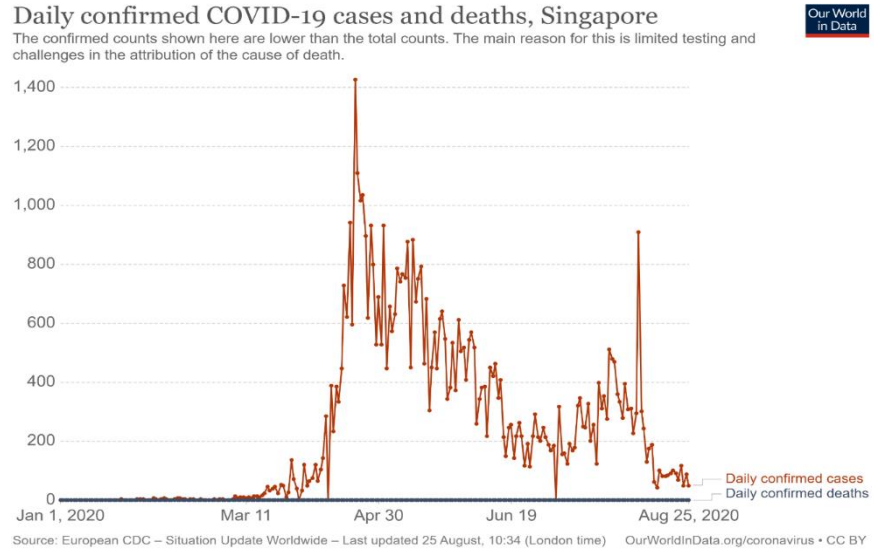
- LONG CONFINEMENTS WITHOUT TESTING MAY NOT CONTAIN THE SARS-COV-2 / COVID-19 EPIDEMIC IN GUATEMALA May 23, 2020
- Coronavirus (COVID-19) Update: FDA Authorizes First Antigen Test to Help Rapid Detection of the Virus That Causes COVID-19 in Patients May 21, 2020
- Municipalities and MSP & AS without regulating the Waste Management of houses and hotels during the Covid-19 Pandemic May 17, 2020
- Does the transmission of Covid-19 occur through cash and coins? May 17, 2020
- Evidence-Based Reflections for Reopening Schools May 12, 2020
- Living and Working in the Epicenter of the SarsCov2 / Covid-19 Pandemic, Guatemala May 3, 2020
- Immunosuppressed states: a clinical-therapeutic staging proposal April 25, 2020
- Is there a difference in the spread of Sars-Cov-2 / Covid-19, depending on the language? April 20, 2020
- What do the countries that best responded to the pandemic have in common? Women leaders April 15, 2020
- Guatemala, A Quarantine That Started Backwards April 12, 2020
- Covid-19 Pandemic and Health April 12, 2020
- Can the Republic of Guatemala Adapt the China Model developed in its Municipalities and Provinces to Address Sars-Cov-2 / Covid-19? April 10, 2020
- Estimation of the Pandemic Impact in Guatemala Sars-Cov-2 / Covid-19 April 4, 2020
- Editorial March 22, 2020

World Successful Experiences In The Approaching The Sars-Cov-2/Covid-19 Pandemic









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Atitlan Lake

Thank You

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COVID-19: Situation, Response, Lessons Learned in Italy

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University of Ferrara
Italy

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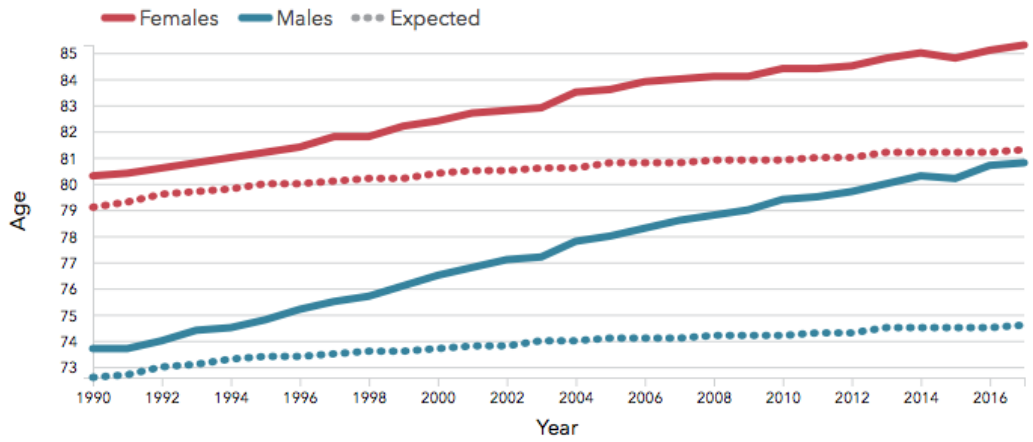
Italy

- Regionally based national health service
- Care and quality may vary by region
- Free of charge universal coverage at the point of service

2017 population	2017 per capita GDP	2017 fertility rate	2017 educational attainment (years)
60.6M	$35,079	1.3	12.6

How long do people live?

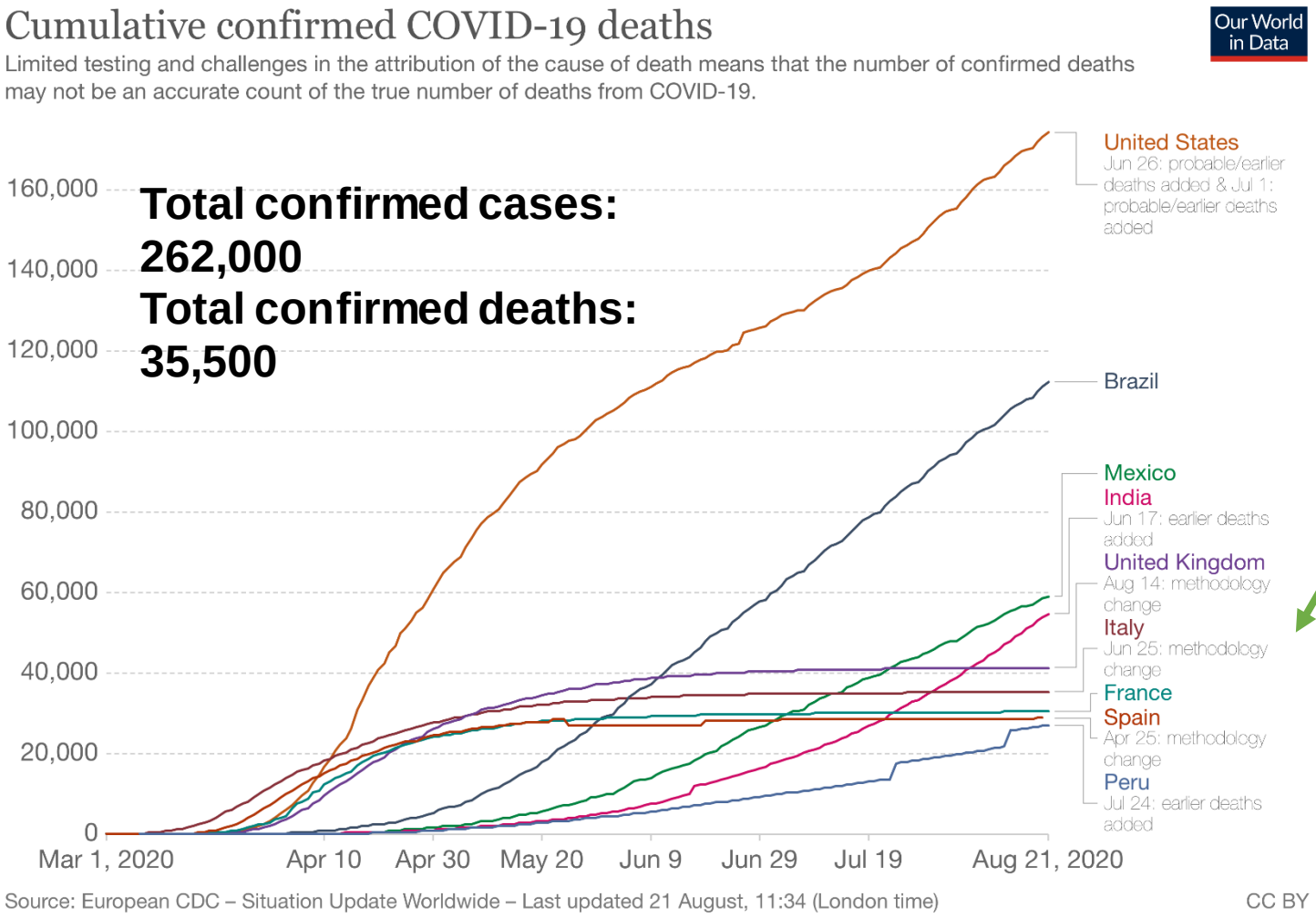


	Expected		Observed	
	1990	2017	1990	2017
Females	79.1	81.3	80.3	85.3
Males	72.6	74.6	73.7	80.8

Life expectancy, 1990-2017

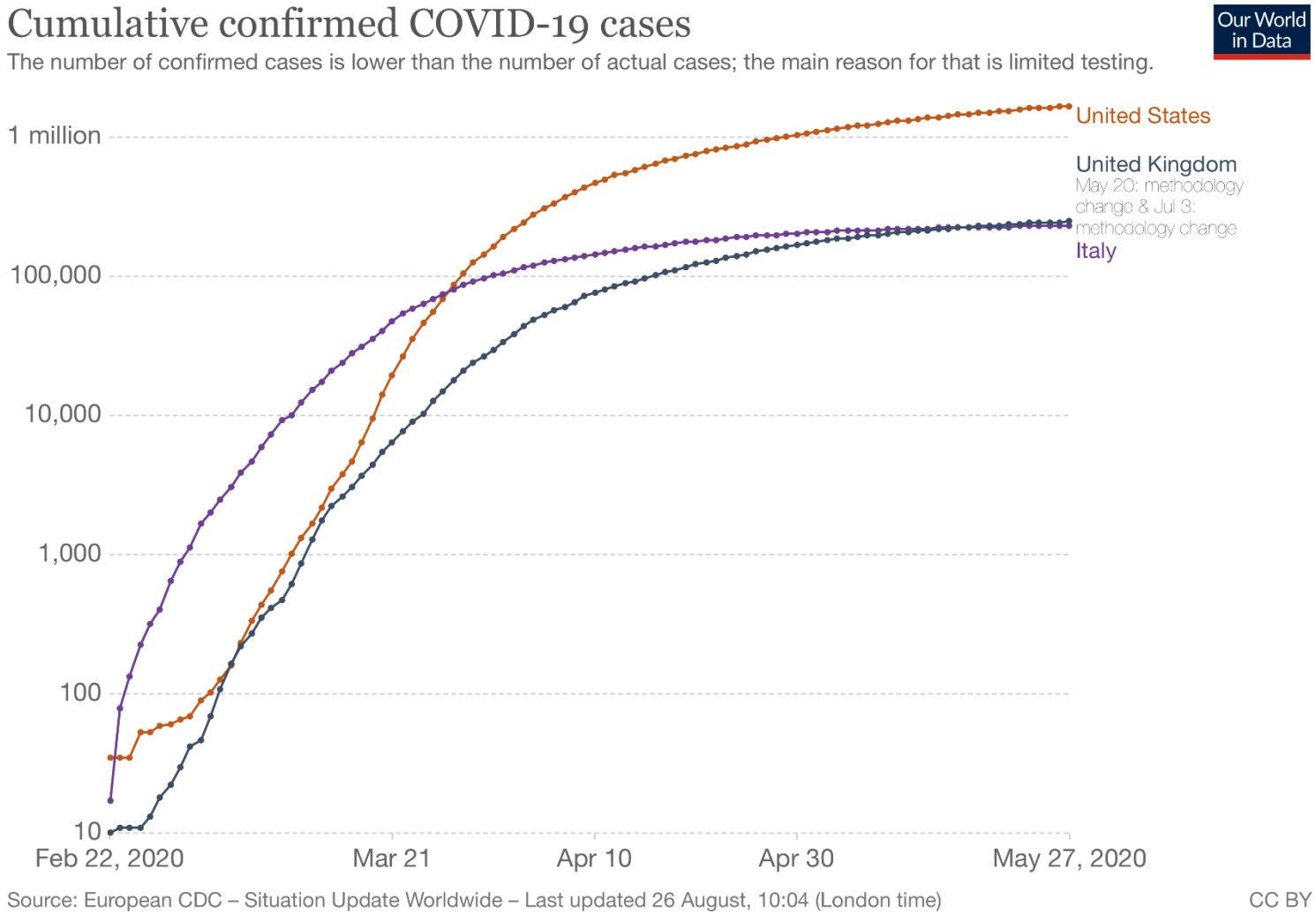
http://www.healthdata.org/italy

COVID-19 situation



Rank: 17th by total cases | **6th** by number of deaths | **7th** (5th if excluding small countries) by deaths per 1 million population

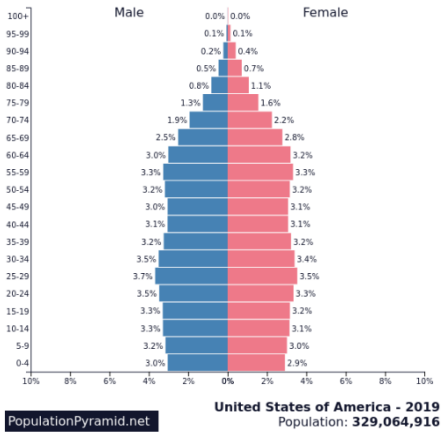
COVID-19 situation:
Why some many deaths?



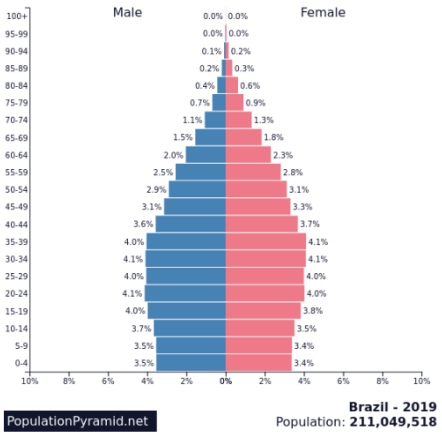
- **Timing**
- **Population distribution**

Population pyramids of the 3 countries with highest number of cases

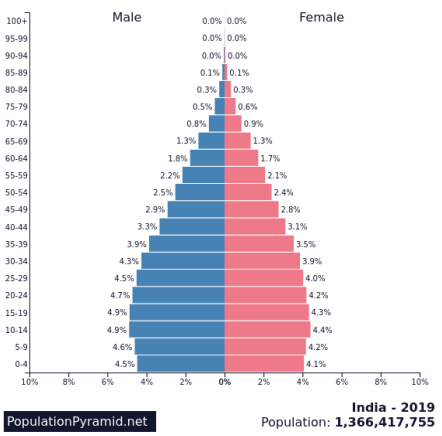
USA



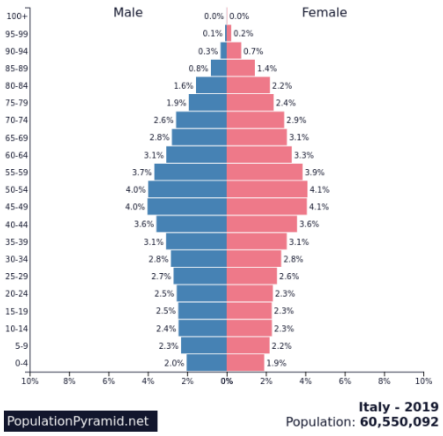
Brazil



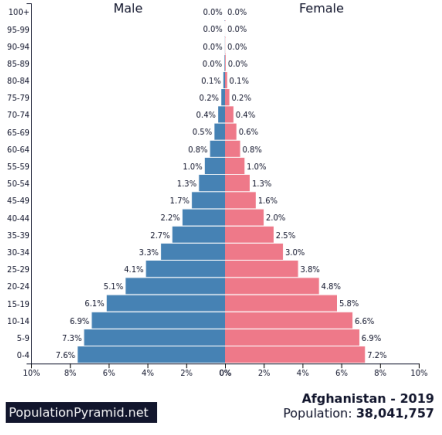
India



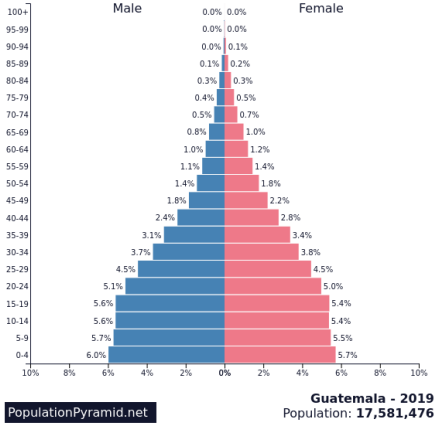
Italy



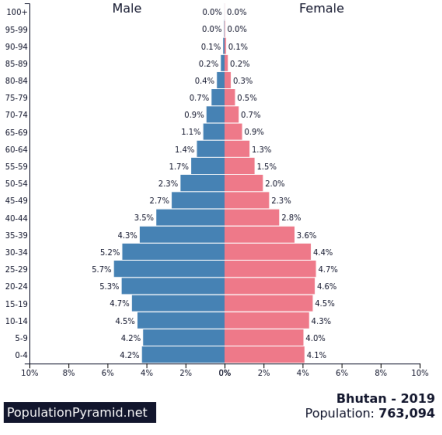
Afghanistan



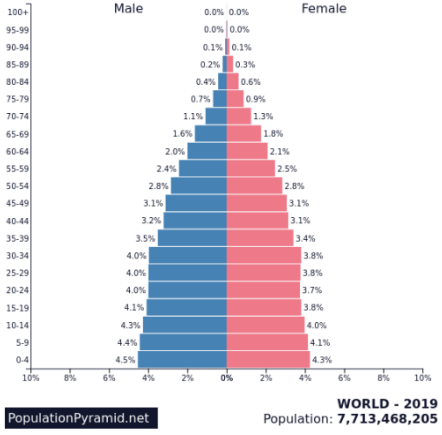
Guatemala



Bhutan

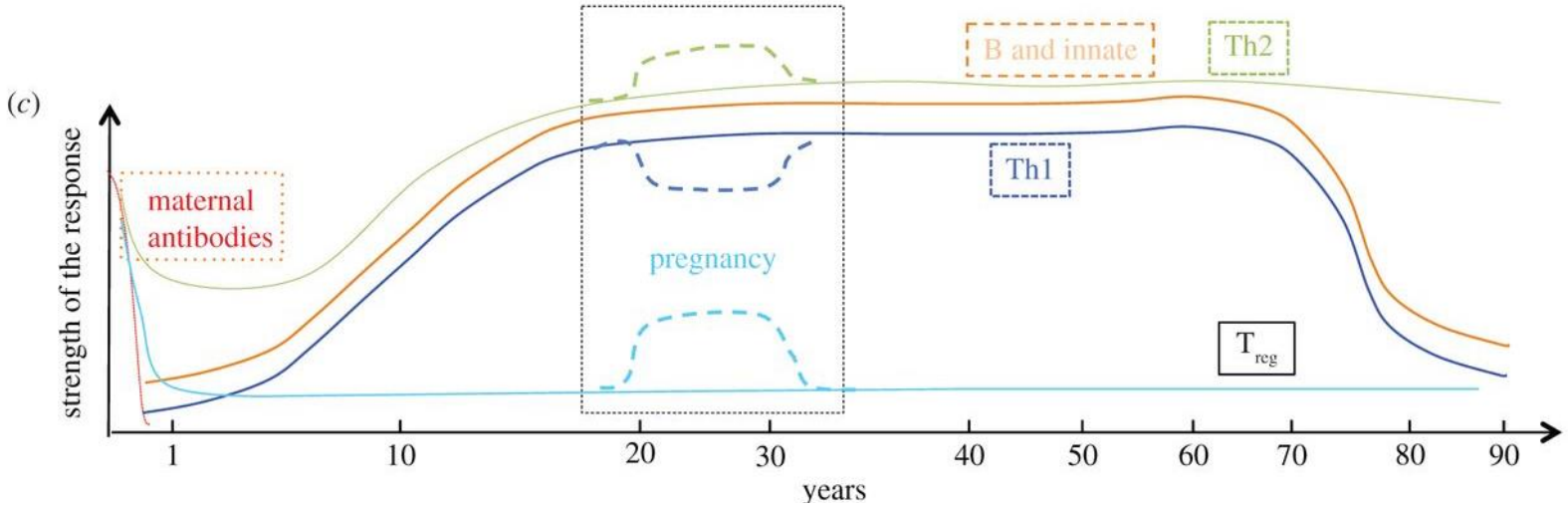


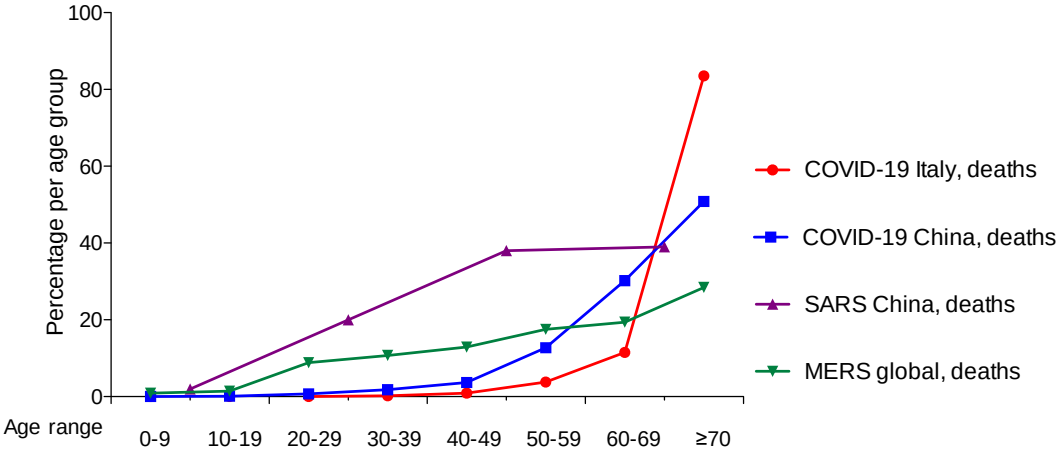
World



COVID-19 situation:
the elderly, a fragile segment of the population

Loss of immune responses with age (in particular vs new infections)





- **Emerging infections particularly severe for old subjects**
- **>80% of deaths in Italy in 70+**

Nicoli et al, GeroScience 2020

COVID-19 situation:
where was the infection acquired

TABELLA 6 - DISTRIBUZIONE DEI LUOGHI DI ESPOSIZIONE DEI CASI DIAGNOSTICATI DAL 25/05/2020 AL 23/06/ 2020 (DATO DISPONIBILE PER 969/8.394 CASI).

Luogo di esposizione	Casi	
	N	%
RSA/Casa di Riposo/Comunità disabili **retirement home**	340	35,1
Ambito familiare **family**	238	24,6
Ospedale/Ambulatorio **hospital**	64	6,6
Lavoro* **workplace**	38	3,9
Nave/Crociera	8	0,8
Comunità religiosa	1	0,1
Altro	280	28,9
Totale	**969**	

* Per Lavoro si intende qualunque luogo diverso dagli altri ambiti riportati

Key interventions/responses

Late Feb

- measures on sporting events, prisons, exams, tourism

Early March

- schools closed (whole country)
- stronger measures on most-affected regions

Mid March

- closure of all commercial activities (whole Italy), with exception of grocery stores and pharmacies

Mid/Late March

- ban on: accessing parks and carrying out recreational activities. Closure of the food and drink administration establishments

Key interventions/responses

Late March	• ban on moving between municipalities
April	• restrictive measures extended until May 3. However, the opening of stationery shops, bookshops and clothing stores for children and babies will be allowed
May	• gradual re-opening of activities and travels
Early June	• travelling between regions is allowed

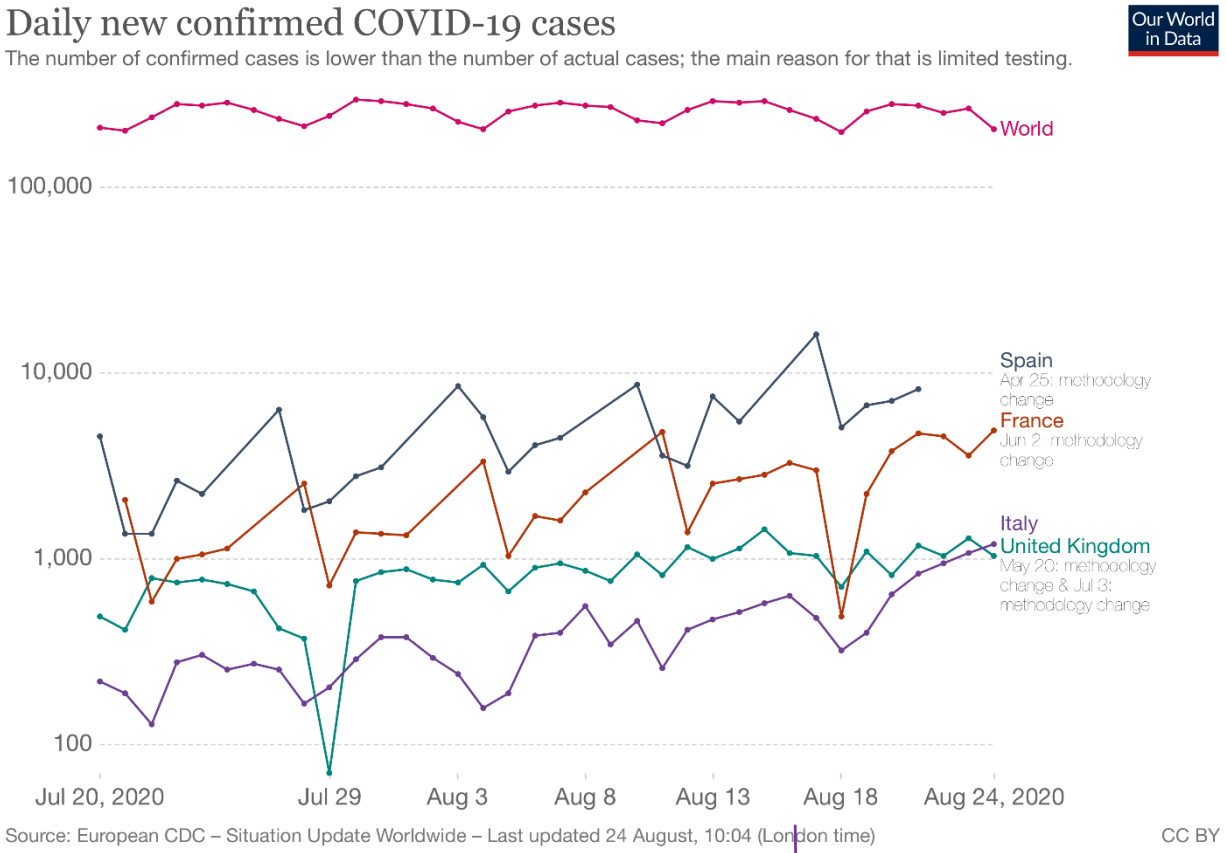
Key interventions/responses

Schools closure + School holidays

Commercial activities closure

Ban on movements

Key interventions/responses



Persons on holiday (IT)

Masks and social distancing in restaurants and close environments

Masks outside in the late afternoon and night

Dancing clubs closed

Lessons Learned (1)

Total number of cases

Post-lockdown hotspots

With current measures, active case findings and previous experience:

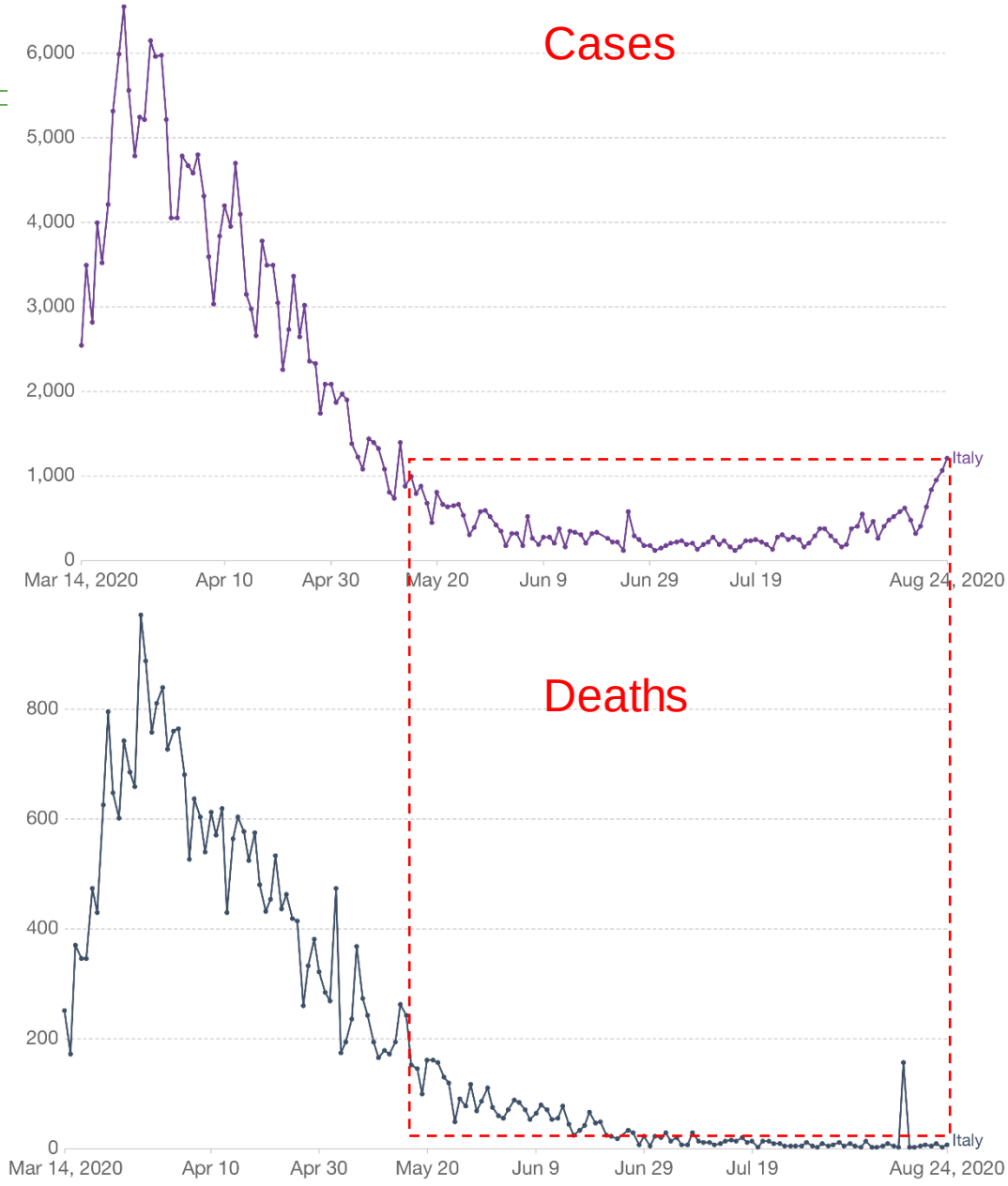
- Slow increase (not exponential as in Feb/May)
- Different geographic distribution (isolation of outbreaks)

Lessons Learned (2)

Example of August 24th: same number of cases as in mid May, far less number of deaths:

- Better organization of diagnostics (more case finding)
- Better organization of hospitals/ICU → better care

Politicians said: no more cuts on health!



Considerations

- High percentages of old citizens→ more severe consequences after COVID-19 pandemics
- The elderly are more at risk of death due to emerging infections, and retirements houses are places of infection spread → special focus on this population when preparing pandemic preparedness plans

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Thank you

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