

ONE HEALTH Knowledge-Café

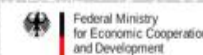
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COVID-19: Situation, Response, Lessons Learned

Bolivia | Germany | Ghana | Nepal

Date: July 31, 2020 | Time 1:30PM GMT | 7:15PM NTP | 3:30PM CET | 6:30AM PST



Carlos Fernando Pinto Navia

Universidad San Francisco Xavier de Chuquisaca, Bolivia



Guenter Froeschl

Division of infectious Disease and Tropical Medicine, University Hospital, LMU, Munich Germany



Gloria Ivy Mensah, Ph.D.

Noguchi Memorial institute for Medical Research, University of Ghana, Ghana



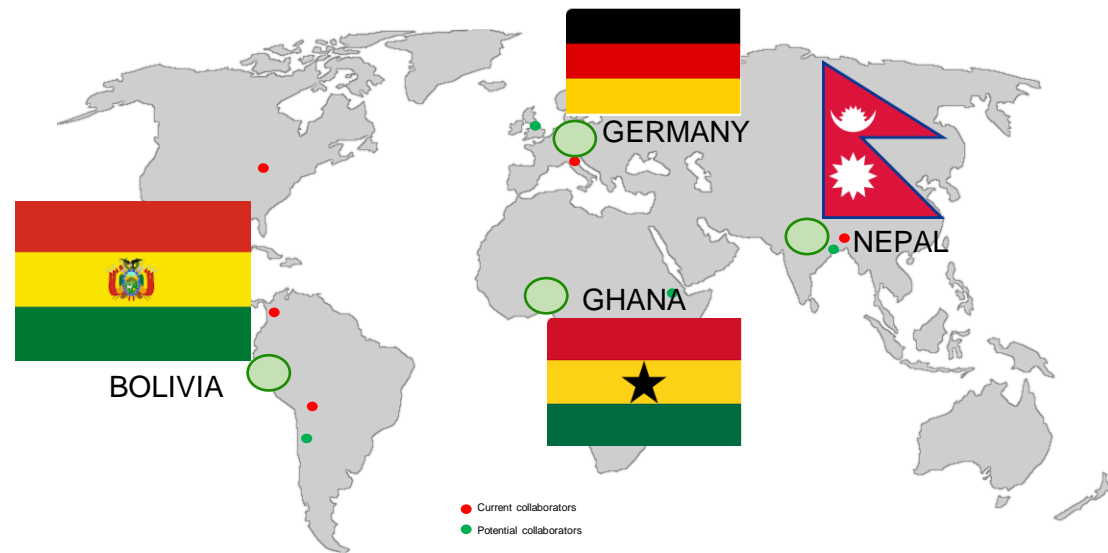
Bhim Prasad Sapkota

Ministry of Health and Population, Nepal
PhD candidate at CIH-LMU





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
<p>Bolivia</p> 	<p>South America 11.5 Million Literacy adult 92% GDP per capita \$ 6,658 1.6 physician per 1,000 population</p>	<p>Carlos Pinto is working at the Center for Graduate Studies and Research (CEPI) - Universidad San Francisco Xavier de Chuquisaca (USFX)</p>
<p>Germany</p> 	<p>Europe 83.3 Million Literacy adult 99% GDP per capita \$ 45, 446 4.2 physician per 1,000 population</p>	<p>Dr Guenter Froeschl is a medical doctor and specialist in infectious diseases and tropical medicine, and a senior lecturer and researcher at LMU, Munich.</p>
<p>Ghana</p> 	<p>Africa 30.2 Million Literacy adult 79% GDP per capita \$ 3,966 0.1 physician per 1,000 population</p>	<p>Dr. Gloria Ivy Mensah is a Research Fellow of the Department of Bacteriology, Noguchi Memorial Institute for Medical Research (NMIMR), University of Ghana.</p>
<p>Nepal</p> 	<p>South Asia 30 million Literacy adult 68% GDP per capita \$2,363 doctors, nurses and midwives 7 per 10,000 population or (0.67 per 1000 population)</p>	<p>Mr. Bhim Sapkota works at the Ministry of Health and Population in Nepal. He is also a current PhD scholar at LMU^{CIH}.</p>

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



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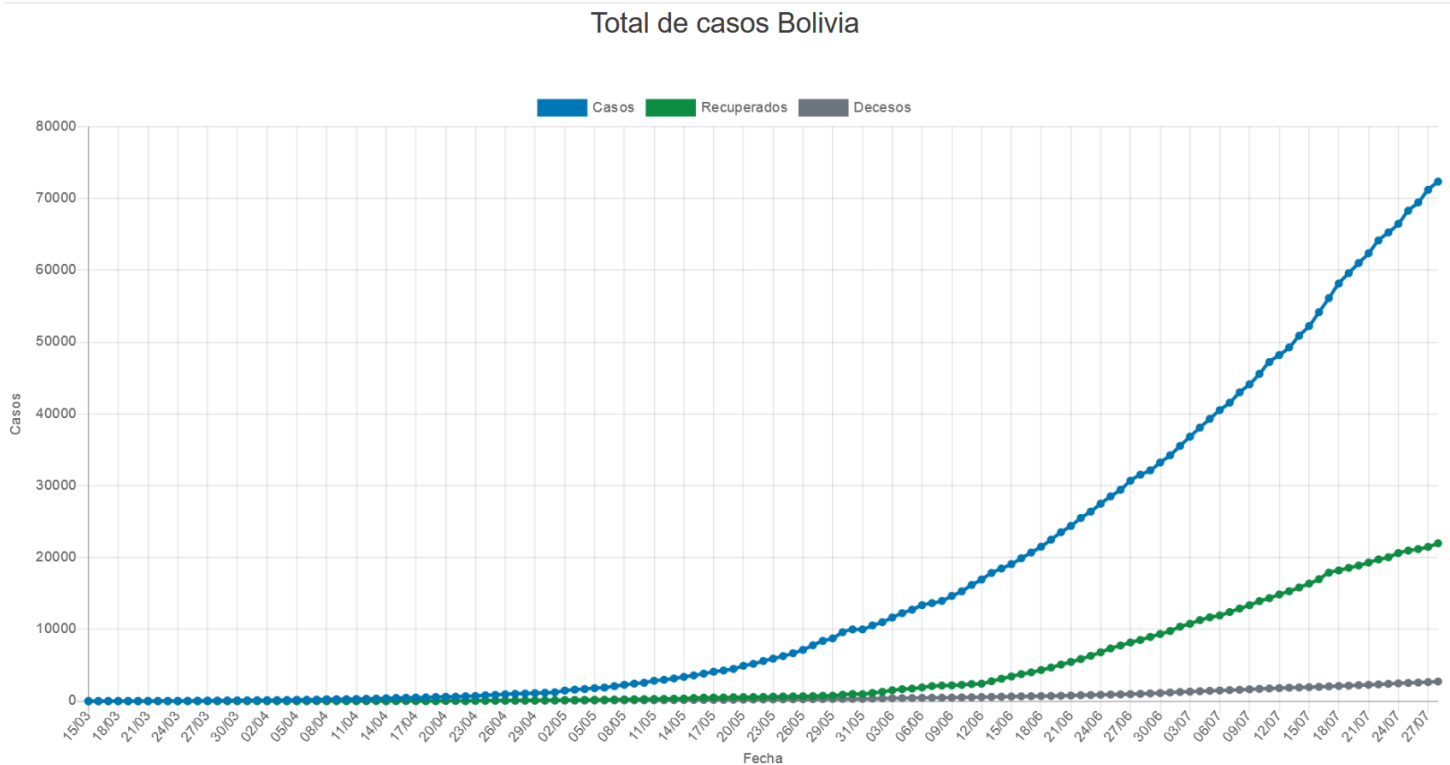
COVID-19: Situation, Response, Lessons Learned in Bolivia

Carlos F. Pinto

Universidad San Francisco Xavier de Chuquisaca
Bolivia

COVID-19 situation

- First case 03/10, migrant women returning from Italy
- 12th country of latin america infected



Total confirmed cases per million people: 6,151.87

Deaths per million people
226.76

Recovery 30,4%

Fatality rate: 3,7%

COVID-19 situation

- Health system collapsed
- Lack of resources and personal protective equipment in health care centers
- Treatment uncertainty for COVID-19
- Lack of clear protocols for deceased persons
- Uncertainty about short and long term effects of quarantine
 - Psychosocial
 - Economic (60-70% informal work before COVID-19 pandemic)
 - Educational (conflicts between parents – teachers - schools)
 - Political (elections postponed to October)

Oruro: It is confirm that 30 deceased by Covid-19 were buried in a mass grave after more than 15 days of abandonment

Oruro: Confirman que 30 fallecidos por Covid-19 fueron enterrados en fosa común tras más de 15 días de abandono

La fosa fue habilitada por la Alcaldía, ante el abandono de los mismos y el colapso de la morgue del Hospital Obrero de la Caja Nacional de Salud. El alcalde informó que se está gestionando la implementación de dos hornos crematorios móviles y un cementerio para los muertos por el virus

Emilio Huáscar Castillo Ilanes 28/7/2020 19:52



Thousands march and announce strike demanding early elections in Bolivia

Miles marchan y anuncian paro en demanda de prontas elecciones en Bolivia

Las protestas fueron numerosas en El Alto y Cochabamba, mientras que el Ejecutivo transitorio señaló que apenas tuvieron repercusión en la vida diaria.



Covid-19: sin plan y con colapso en salud, el país entra a fase crítica

País



Covid-19: without plan and with collapse in health, the country enters a critical phase

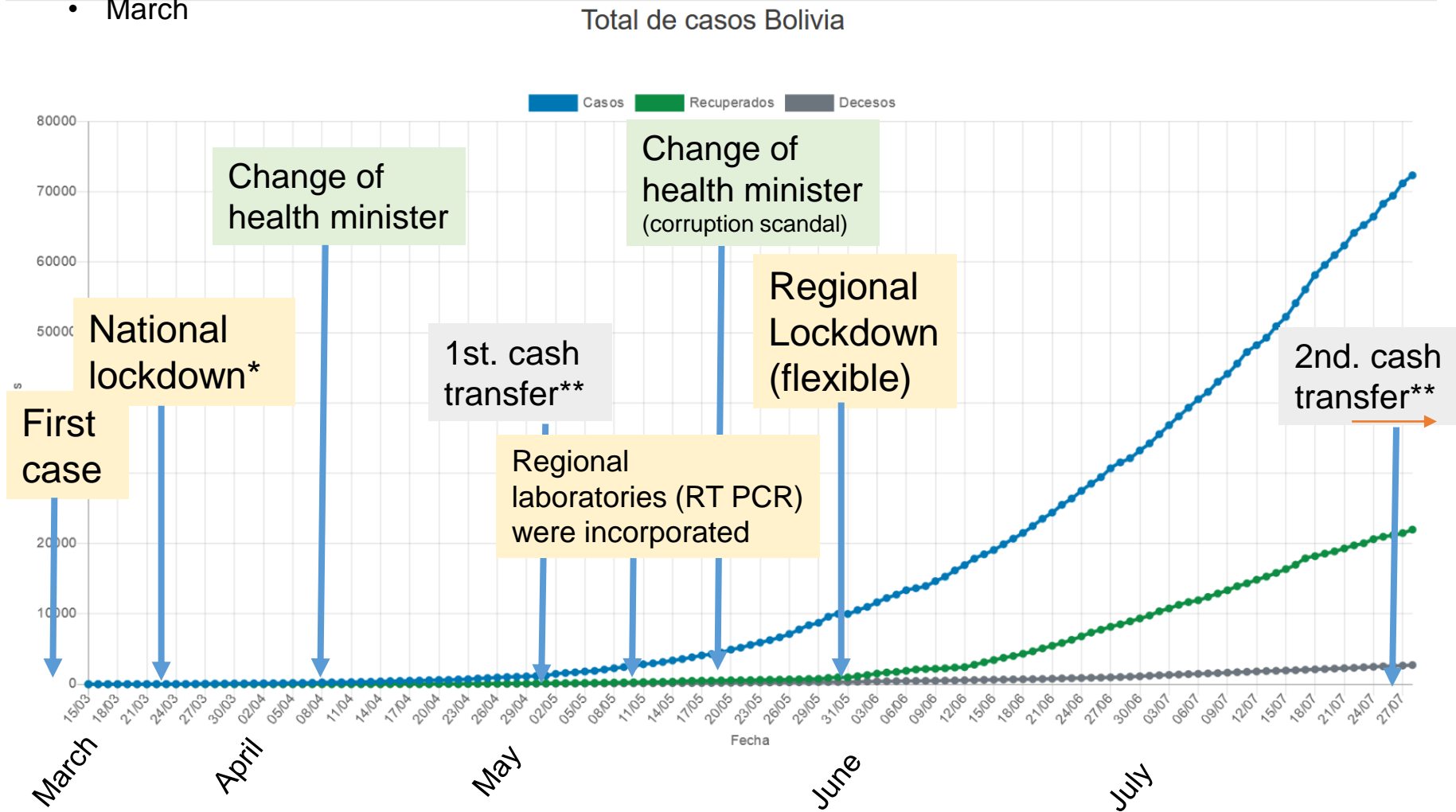
<https://eldeber.com.bo/pais/oruro-confirman-que-30-fallecidos-por-covid-19-fueron-enterrados-en-fosa-comun-tras-mas-de-15-dias-d> 192909

<https://www.dw.com/es/miles-marchan-y-anuncian-paro-en-demanda-de-prontas-elecciones-en-bolivia/a-54359954>

<https://www.lostiempos.com/actualidad/pais/20200618/covid-19-plan-colapso-salud-pais-entra-fase-critica>

Key interventions/responses

- March



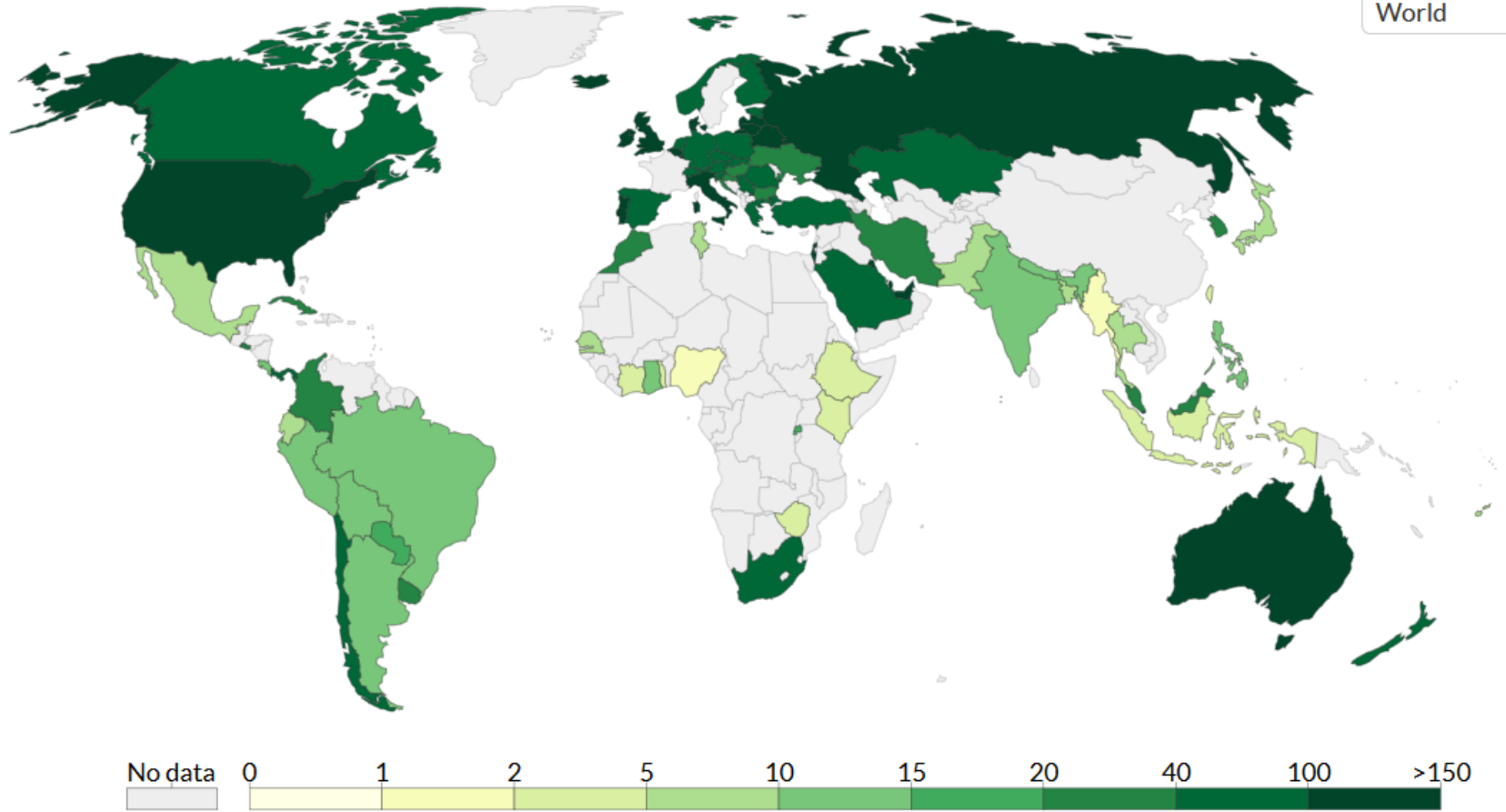
*coordinated with military and police force; ** 72 USD

Total COVID-19 tests per 1,000 people, Jul 26, 2020

The figures shown relate to the closest date for which we have data, with a maximum of 10 days' difference.



World



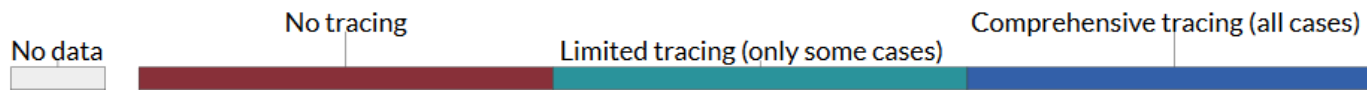
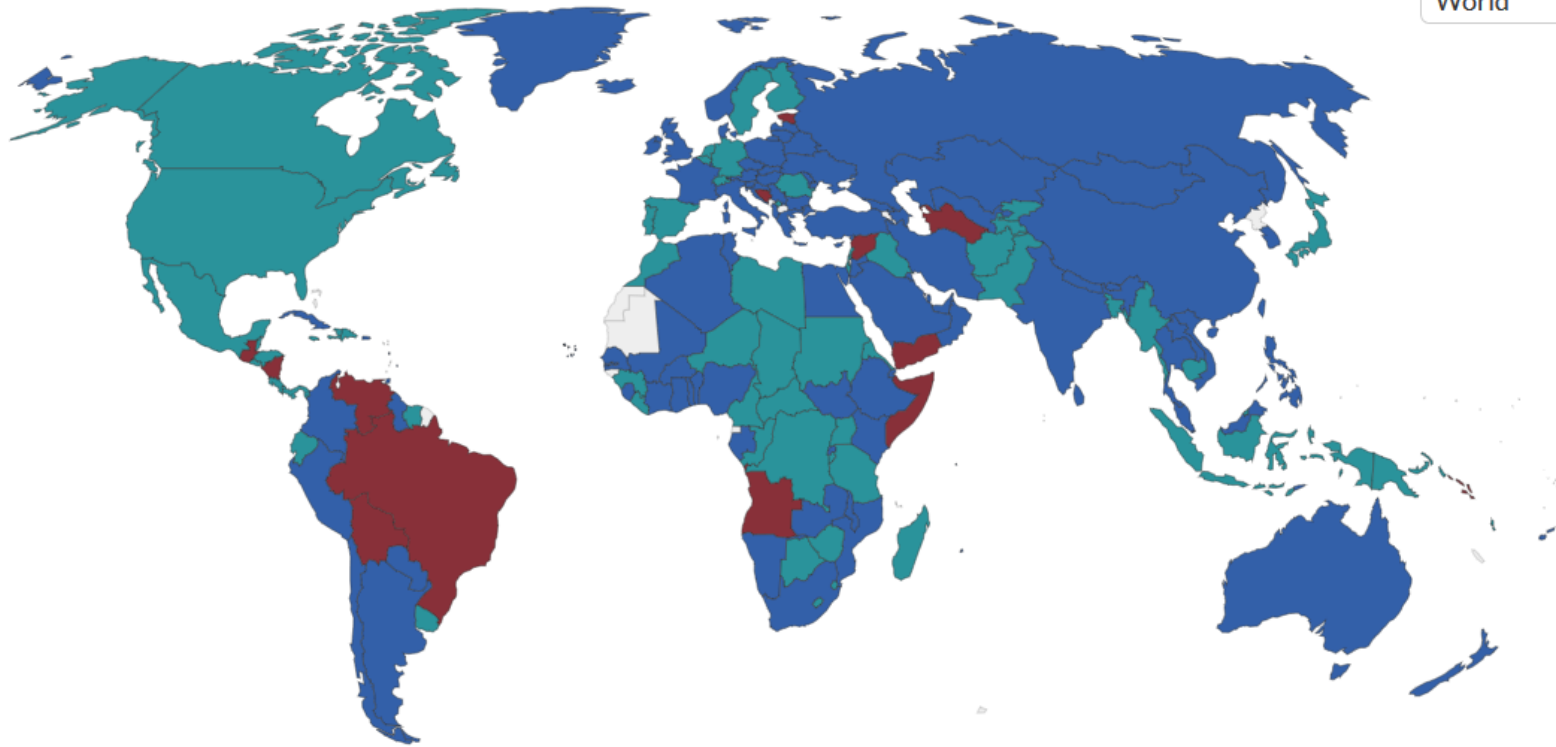
Tests performed: 11.09 per 1,000 – Only symptomatic and key groups
positivity rate: 65%

Which countries do COVID-19 contact tracing?, Jul 28, 2020

'Limited' contact tracing means some, but not all, cases are traced. 'Comprehensive' tracing means all cases are traced.



World



unclear tracing protocols - few resources allocated

Lessons Learned

- Quarantine and biosecurity measures were effective meanwhile were strictly applied
- Regions with a higher rate of coordination between authorities dealt more effectively against COVID
- Early diagnosis and traceability system seem to be key factors to control the incidence of COVID
- Education and communication are important to avoid stigma and despair in the population

Considerations

- Education and awareness of the population is very important!!
- Evidence-based health policies and bioethics need to be strengthened
 - Indiscriminate use of some medications (e.g. Chlorine dioxide, ivermectine used as prevention)
 - Unclear protocols for COVID for care, referral and treatment
 - Randomized clinical trials in vulnerable populations*
- Indigenous communities with limited access to health (now in a worse situation)
- Political conflicts and corruption were accentuated in this period

*https://correodelsur.com/seguridad/20200714_sucre-mas-de-200-reclusos-con-sintomas-de-coronavirus-se-someten-a-tratamiento-con-dioxido-de-cloro.html

Points for Q&A session

- Is decision-making better at the local or national level?
- What is the role of primary care for case detection and management?
- how important is the adequate traceability of positive cases and suspicious cases?
- How to proceed if it can no longer be isolated?



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COVID-19: Situation, Response, Lessons Learned in Munich, Germany

Dr Guenter Froeschl, MD

Division of Infectious Diseases and Tropical Medicine
University Hospital, LMU Munich

Germany

COVID-19 situation

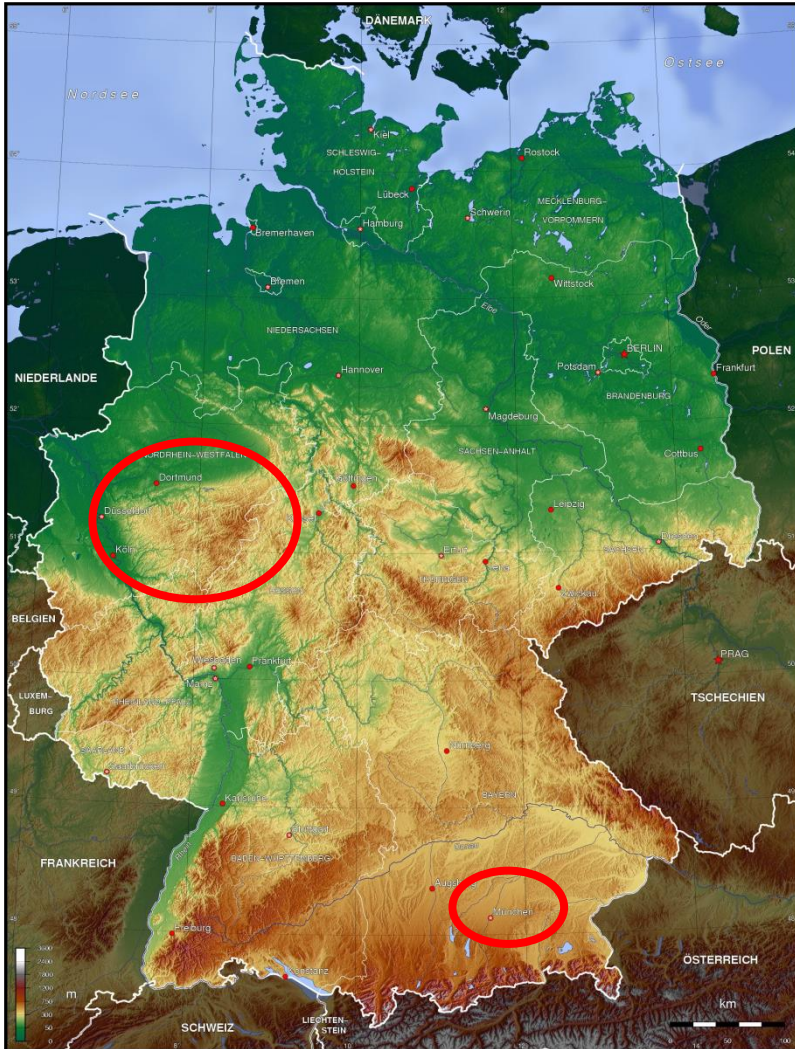
- Germany: 84 million
- Case 1 on 27 January 2020
- As of 22 July 2020: 204,000 cumulative cases
<https://gisanddata.maps.arcgis.com/apps/opsdashboard/index.html#/bda7594740fd40299423467b48e9ecf6>

COVID-19 situation



Source: www.br.de

COVID-19 situation



By Botaurus-stellaris - Own work, CC BY-SA 3.0,
<https://commons.wikimedia.org/w/index.php?curid=1376564>

COVID-19 situation



Key interventions/responses

- Detection
 - First five cases in Germany detected in our facility
 - COVID Testing Unit since 28 January 2020
 - Changing testing strategies and case definitions
 - Containment
 - Control
 - Herd immunity
- Management
 - Hospitalization
 - Quarantine
 - ICU

Key interventions/responses

- Community
 - Information, Communication, Education
 - Radio, television
 - Podcasts
 - Authorities
 - Social distancing
 - Restriction of mobility
 - Protective equipment
 - Stockpiling
- Research
 - Prevalence studies
 - Vaccine studies



Lessons Learned

- Controllable:
 - Commitment
 - PH Systems
 - Preparedness of Health Facilities
 - Flexibility
 - Accountability
 - Global action
- Uncontrollable:
 - Commitment
 - Coincidence
 - Luck
 - Hidden agendas (politics, economy)

Considerations

- We have to expect more of the COVID kind!
- We need to be prepared yet flexible
- We need to communicate
- We need to think globally
- Community involvement

Points for Q&A session

- Things went better in Germany than in neighboring countries also because of mere luck! Italy was not so lucky!

Thank you!



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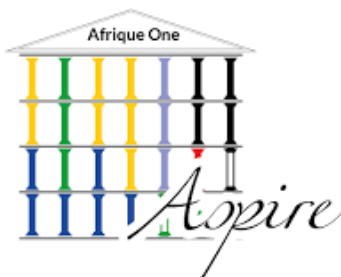
COVID-19: Situation, Response, Lessons Learned in Ghana

Gloria Ivy Mensah Ph.D.

Department of Bacteriology

Noguchi Memorial Institute for Medical Research

University of Ghana



Ghana: A brief Introduction

Population: 30
Million

Now 4th highest
number of cases*
in sub-Saharan
Africa (after South
Africa, Egypt, and
Nigeria)



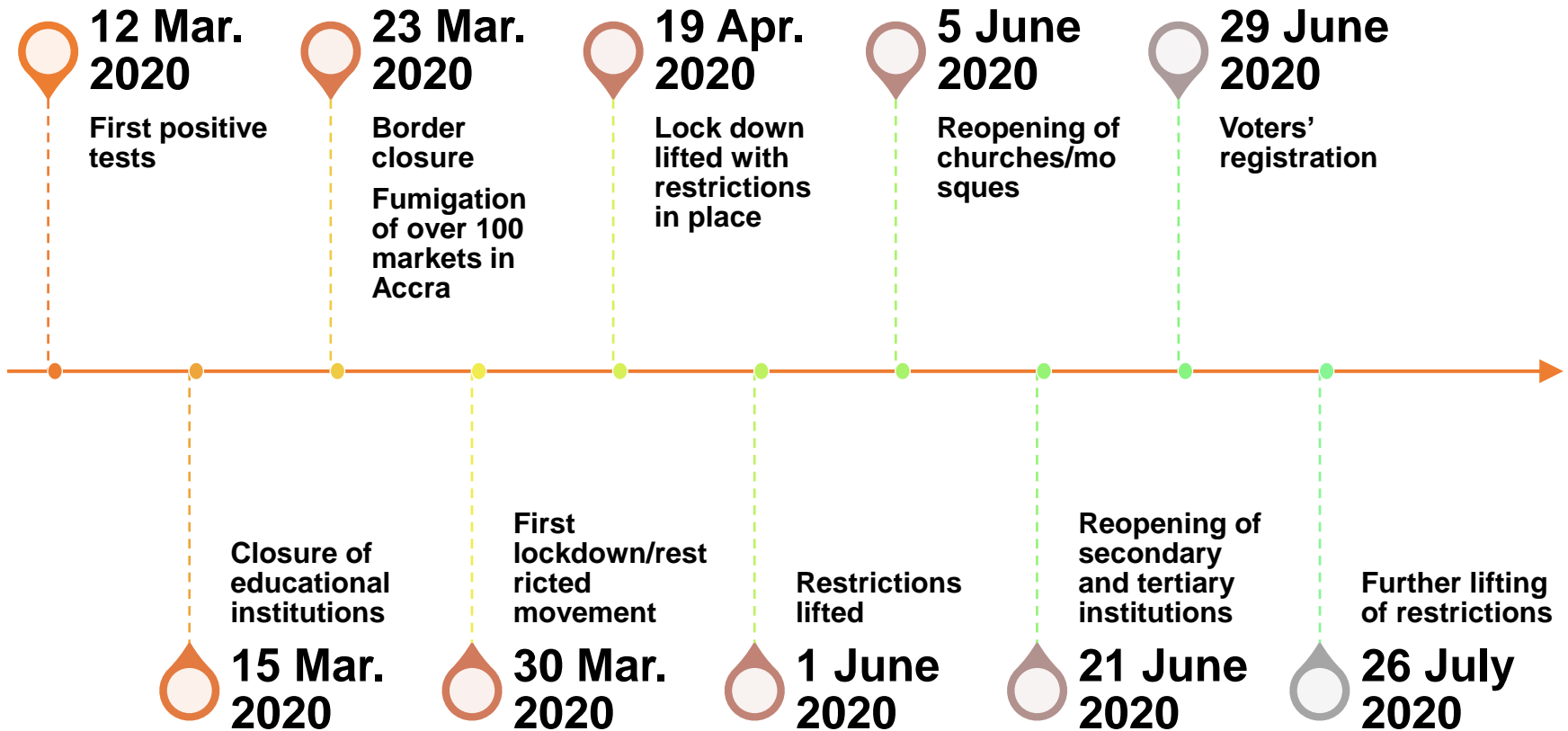
How did it start?: Reaction to first suspected cases



Calming Nerves

- Dedicated Phone numbers
- Isolation wards in major Hospitals
- Designated health facility for positive cases

Key Interventions/Response



Ghana's response strategy

- *Presidential address (13 Times)*
- *Press briefing*
 - 1) *limit and stop the importation of the virus;*
 - 2) *contain the spread of the virus;*
 - 3) *provide adequate care for patients with the virus;*
 - 4) *limit the social and economic impacts of the virus; and*
 - 5) *expand domestic capability and deepen Ghana's self-reliance*
- *Test, Trace, Treat*



“

We know how to bring the economy back to life. What we do not know is how to bring people back to life”

Nana Akufo-Addo
Ghana's president

Incentives



- Tax Exemption for Health workers
- A daily allowance for workers doing contact tracing.
- An additional allowance of 50 percent of monthly basic salary for front-line health workers
- An insurance package for front line workers caring for COVID-19 patients
- Water and electricity subsidy (100 percent for the very poor and 50 percent for all others including businesses)



Testing for COVID-19-Research Institutions at the forefront



Strategies

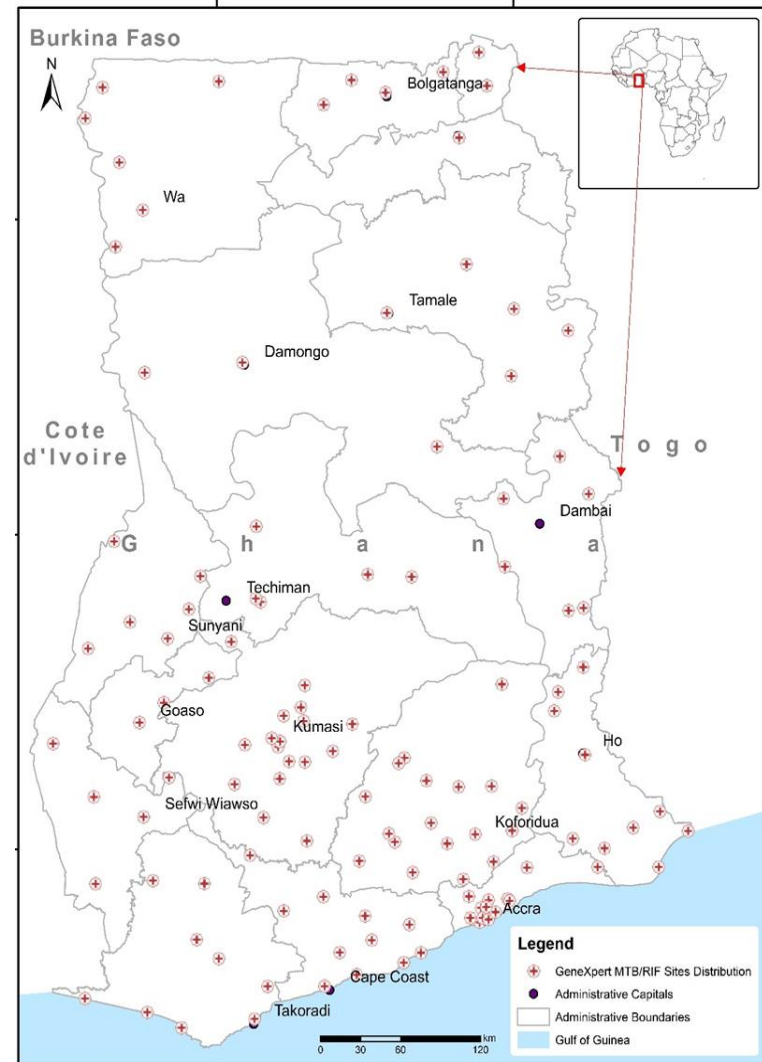
- Pooled testing
- Sputum samples for test
- Drone Delivery of samples for testing
- Mobile Labs



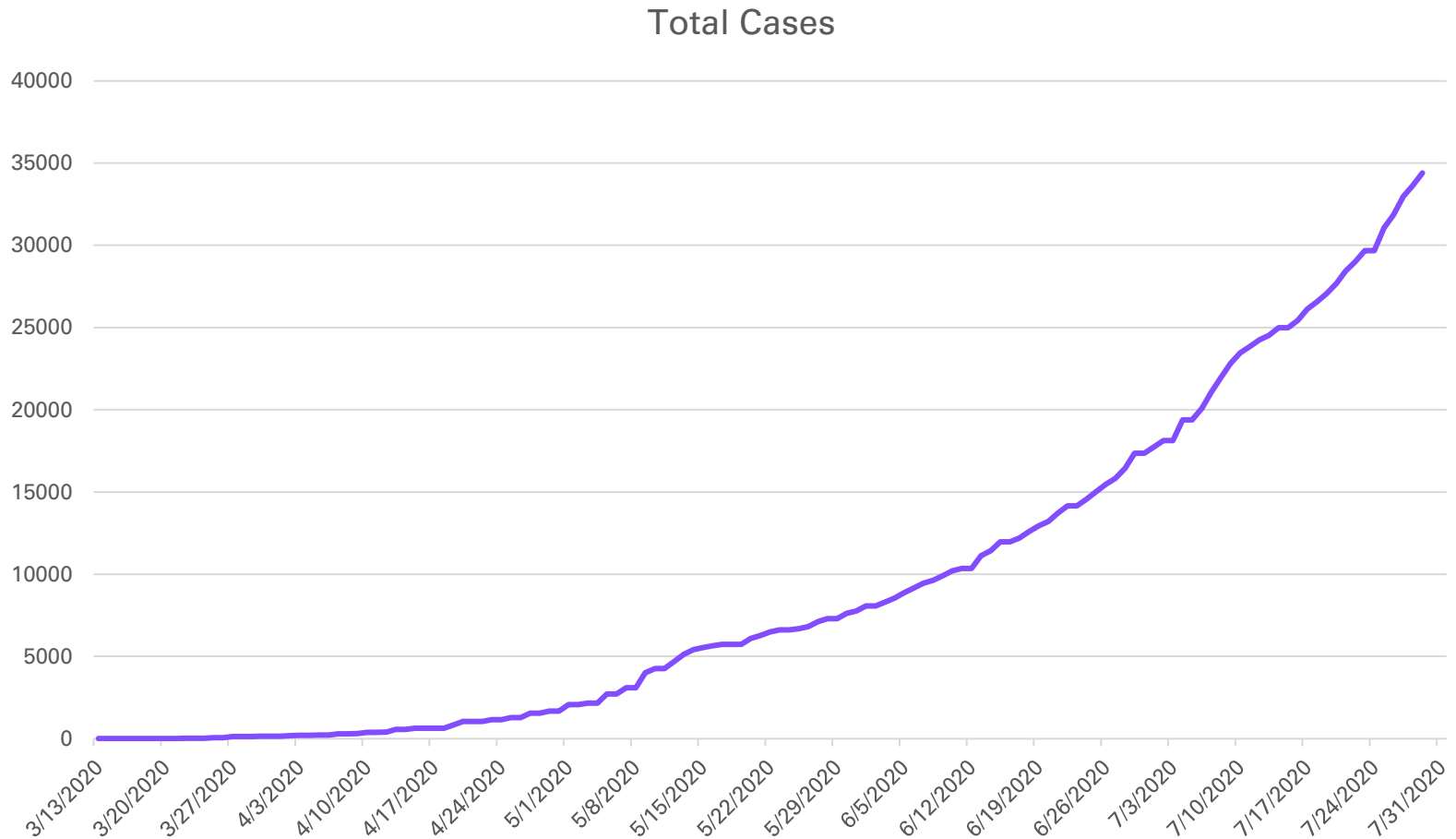
Expanding Testing capacity



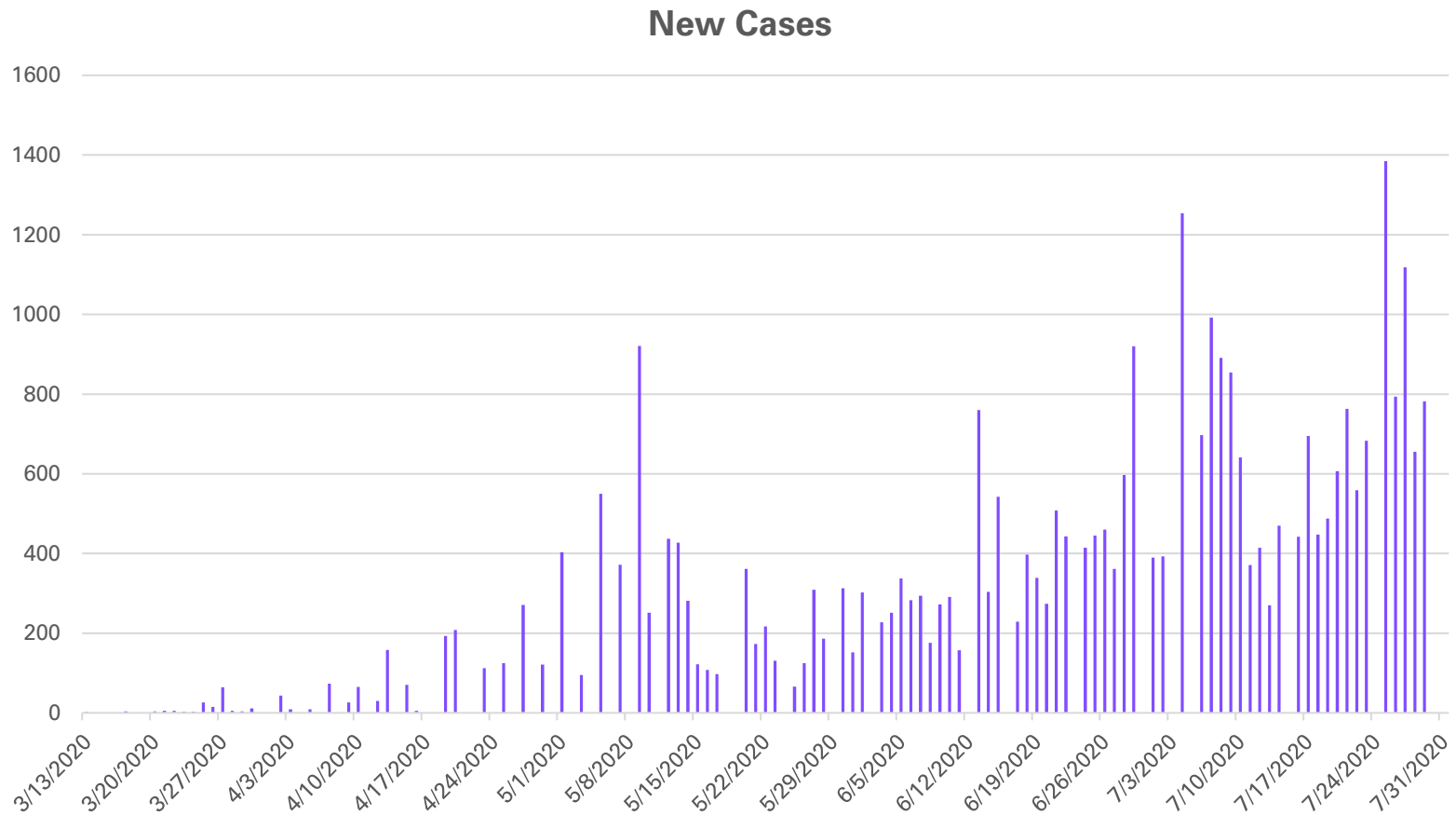
1. Navrongo Reference Lab
2. **Veterinary Service Division (Tamale)**
3. University of Health and Allied Sciences
4. Komfo Anokye Teaching Hospital
5. **Kumasi Centre for Collaborative Research in Tropical Medicine**
6. **Noguchi Memorial Institute for Medical Research**
7. **Veterinary Service Division (Accra)**
8. Korle Bu Teaching Hospital.
9. Council For Scientific and Industrial Research
10. **Takoradi Veterinary Laboratory**



Number of Coronavirus Cases over Time



Number of Coronavirus Cases over Time



COVID-19 Situation Now: Essential Figures

365,281

Number of tests done

34,406

Current number of people who have tested positive

30,621

Number of people who have recovered

168

Number of deaths

Cumulative cases per region



Greater Accra Region	- 18,205
Ashanti Region	- 8,748
Western Region	- 2,576
Central Region	- 1,366
Eastern Region	- 1,304
Volta Region	- 593
Bono East Region	- 483
Bono Region	- 431
Western North Region	- 363
Northern Region	- 309
Upper East Region	- 282
Oti Region	- 192
Ahafo Region	- 145
Upper West Region	- 79
Savannah Region	- 57
North East Region	- 9

Ghana vs Other West African Countries

Ghana	Cases	34,406
	Number of Deaths	168
	Tests Done	365,281
Nigeria	Cases	37,225
	Number of Deaths	801
	Tests Done	206,422
Ivory Coast	Cases	14,312
	Number of Deaths	92
	Tests Done	N/A
Togo	Cases	783
	Number of Deaths	15
	Tests Done	37,404
Burkina Faso	Cases	1,065
	Number of Deaths	53
	Tests Done	N/A

Ghana vs Other Key Countries

Ghana	Cases	34,406
	Number of Deaths	168
	Tests Done	365,281
Germany	Cases	203,556
	Number of Deaths	9,175
	Tests Done	7,418,812
Bolivia	Cases	72,327
	Number of Deaths	2,720
	Tests Done	129,407
Nepal	Cases	19,063
	Number of Deaths	49
	Tests Done	335,082
USA	Cases	4,351,997
	Number of Deaths	149,256
	Tests Done	50,635,683

How is life in Ghana now?



Challenges

- Attitudes
 - Enforcing the protocols
 - Stigma
 - Myths and misinformation about treatment and prevention
- Infection control
 - Infection among Health care workers
 - Availability and distribution of PPE,s
 - Delayed test results
- Relegation of other diseases
- Scientific versus political expediency

Lessons Learned-Government

Pandemic affects all aspects of Life!

- Healthcare delivery
 - Inequities in essential equipment/skilled staff
 - 3 new infectious disease centers
 - 88 new Hospitals to cover all districts
- Support for Research (*budgetary allocation)
- Social Welfare
 - Data on the poor for targeted interventions

Lessons learned- Citizens

Massive response and support from Ghanaians

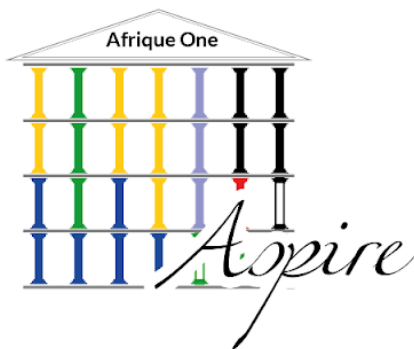
- Individuals, Industries, Religious organizations
 - Donations (Testing, funds)
 - Local production: hand sanitizers, face masks, handwash sets, full body sanitizing equipment
- Embracing Technology in everyday life
 - Educational Institutions
 - Churches/Mosques
 - Corporate Organizations
 - **Funerals/Weddings**
 - Drone Delivery
 - COVID-19 Tracker App
- Science communication



Acknowledgement

Nana Boakye Alahaman
PhD Fellow
Afrique One-ASPIRE

Edward Bensa Agyekum
National Service Person
NMIMR



UNIVERSITY OF GHANA
Noguchi Memorial Institute for Medical Research

PROTECT YOURSELF AGAINST
COVID-19

-  Wear your mask
-  Wash your hands with soap under running water
-  Avoid touching your mouth, eyes & nose
-  Use alcohol based hand sanitizer
-  Keep your distance
-  Consult the Physician when you are not feeling well"

STAY SAFE

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



Bhim Prasad Sapkota

Ministry of Health and Population, Government of Nepal

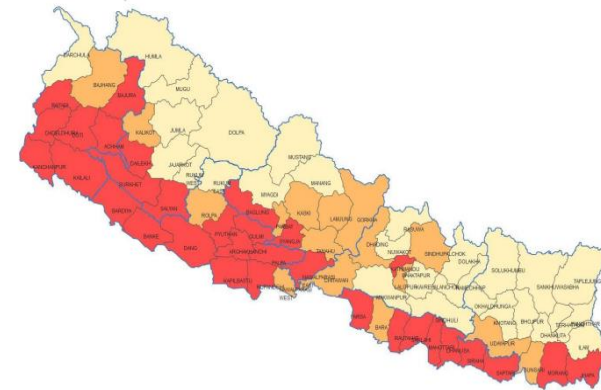
PhD Candidate – International Health, LMU Center for International Health, Germany

Nepal at a Glance

- **Location:** South East Asia, Landlocked
- **Population:** 30 million (cbs.gov.np)
- **Area:** 147,516 Sq. KM

(altitude 59m – 8848 m; Mt. Everest)

- **GDP** (per Capita): \$ 1071.1 [1]
- **HDI:** 0.579 (147th Ranked) [2]
- **Three tier of Governance:** (as per 2015 constitution),
Federal, Province and Local Level
7 Provinces | 77 Districts | 753 Local Level
- **Other :** Agriculture but revenue based economy; diverse culturally, ethnic and languages



1. <https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=NP>

2. <http://hdr.undp.org/en/countries/profiles/NPL>

Nepal at a Glance

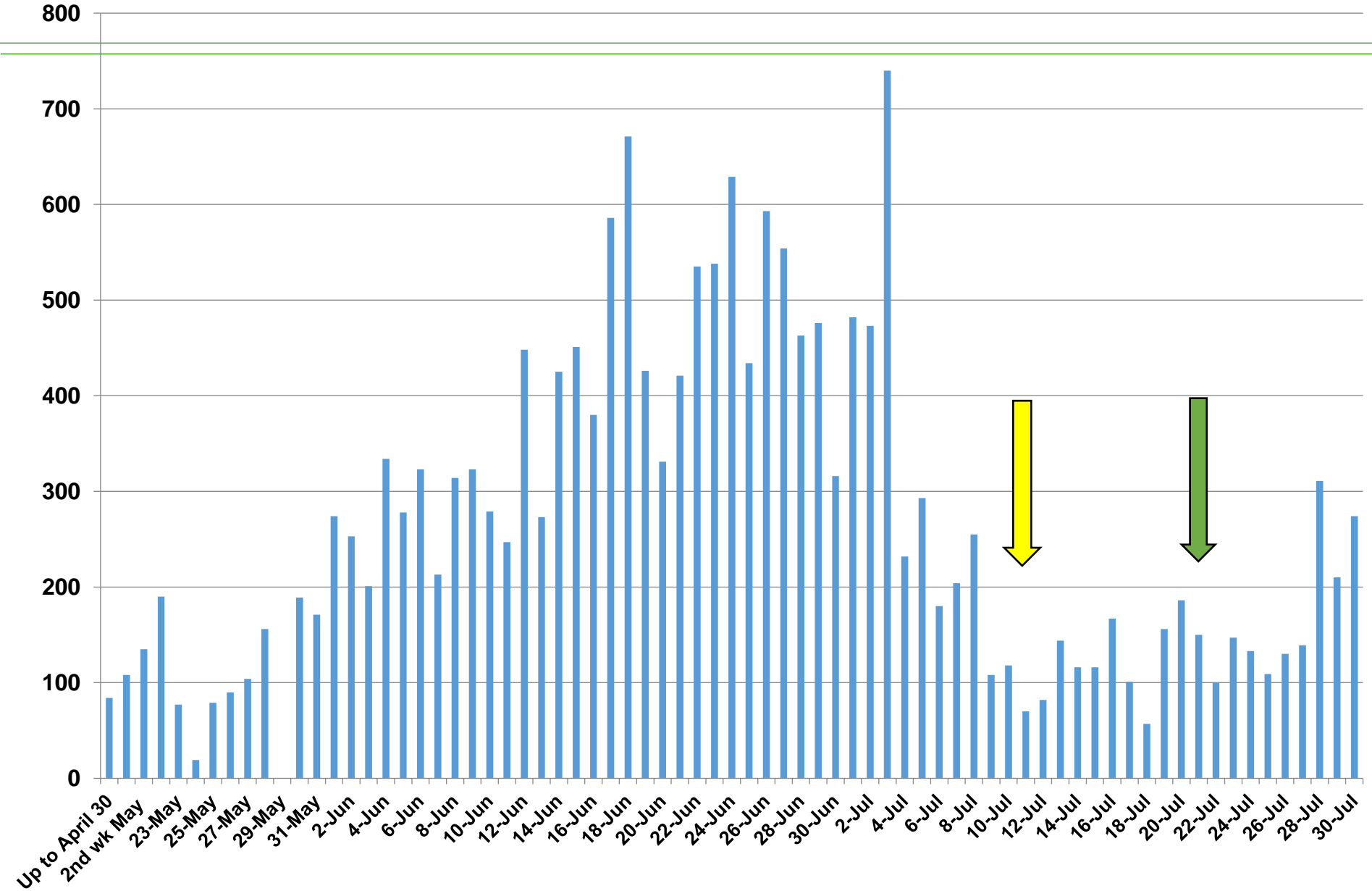
- **Life Expectancy at Birth: 70.5 yrs [3]**
- **Registered HRH: 240,000** ([Registration Records from Council](#))
- **Professionally Active HRH:**
 - Public Sector=27,000
 - Other Sector=50,000
 - HRH Population Ratio=25.67 per 10,000
- **Health System and Financing**
 - **Basic Health Services: Free ***
 - **Health Insurance: Voluntary, being scaled up, Implementation challenges**
- **Hospital Capacity**
 - Hospital Beds:26930, ICU beds: 1595, Ventilators: 840
- **Out of Pocket Expenditure: 60% of total health expenditure**

COVID-19 situation (till 30th July, 2020)

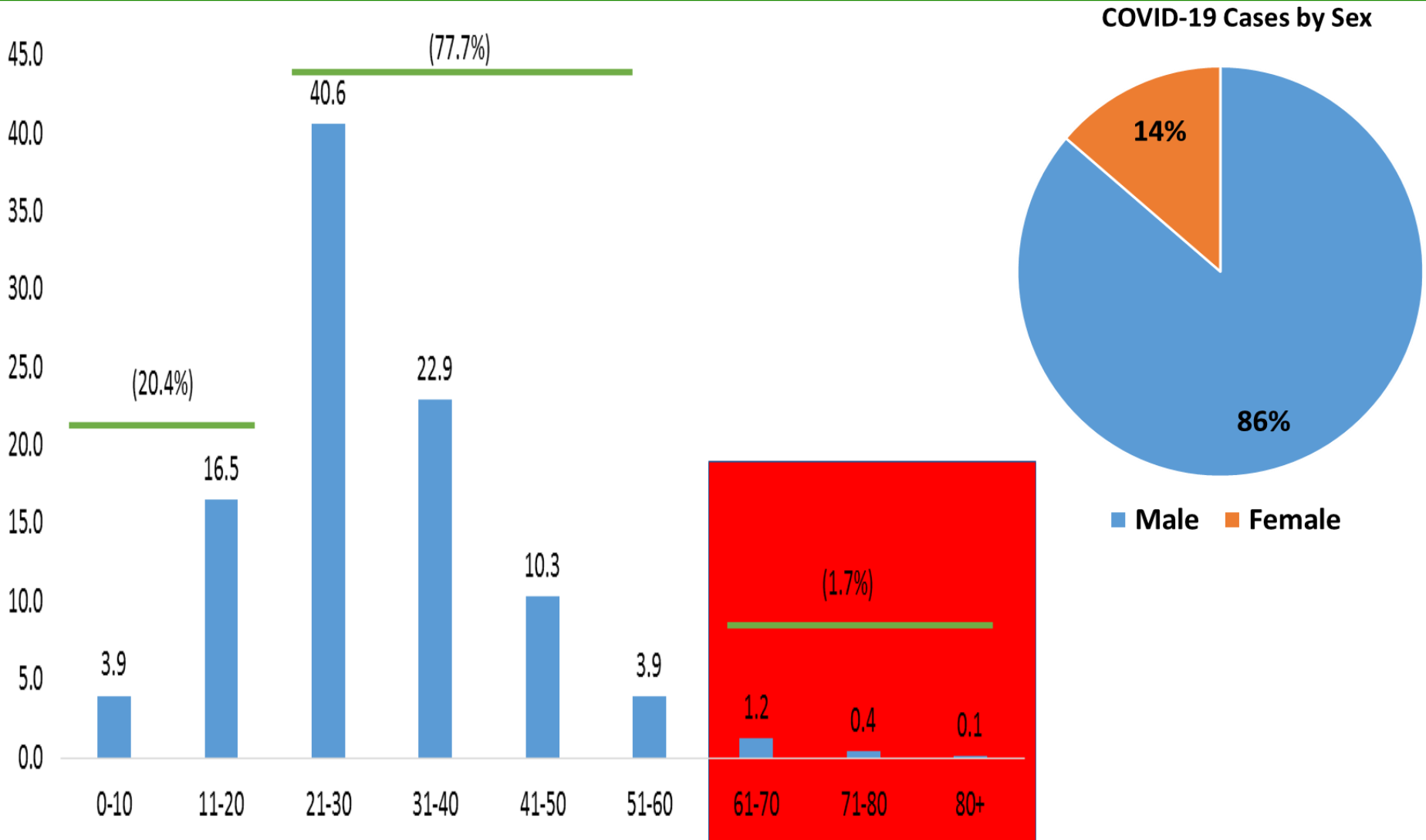
PCR tests (Cumulative)	Positive Cases (Cumulative)	Recovered Cases (Cumulative)	Deaths	Active Cases
364,648	19,547	14,021	52	5,247
12154 per Mi. Popn	651.56 per Mi . Popn	71.72%	1.7 per Mi.Popn	26.84%

- **1st Case:** 23 Jan (China)
- **2nd Case:** 23 March (France)
- 97% of the positive cases have **travel history (abroad)**
- **Positivity rate: 5.36%**
- **Case Fatality Ratio: 0.26 % (Global: 3.9%)**

New Cases (n=19547)

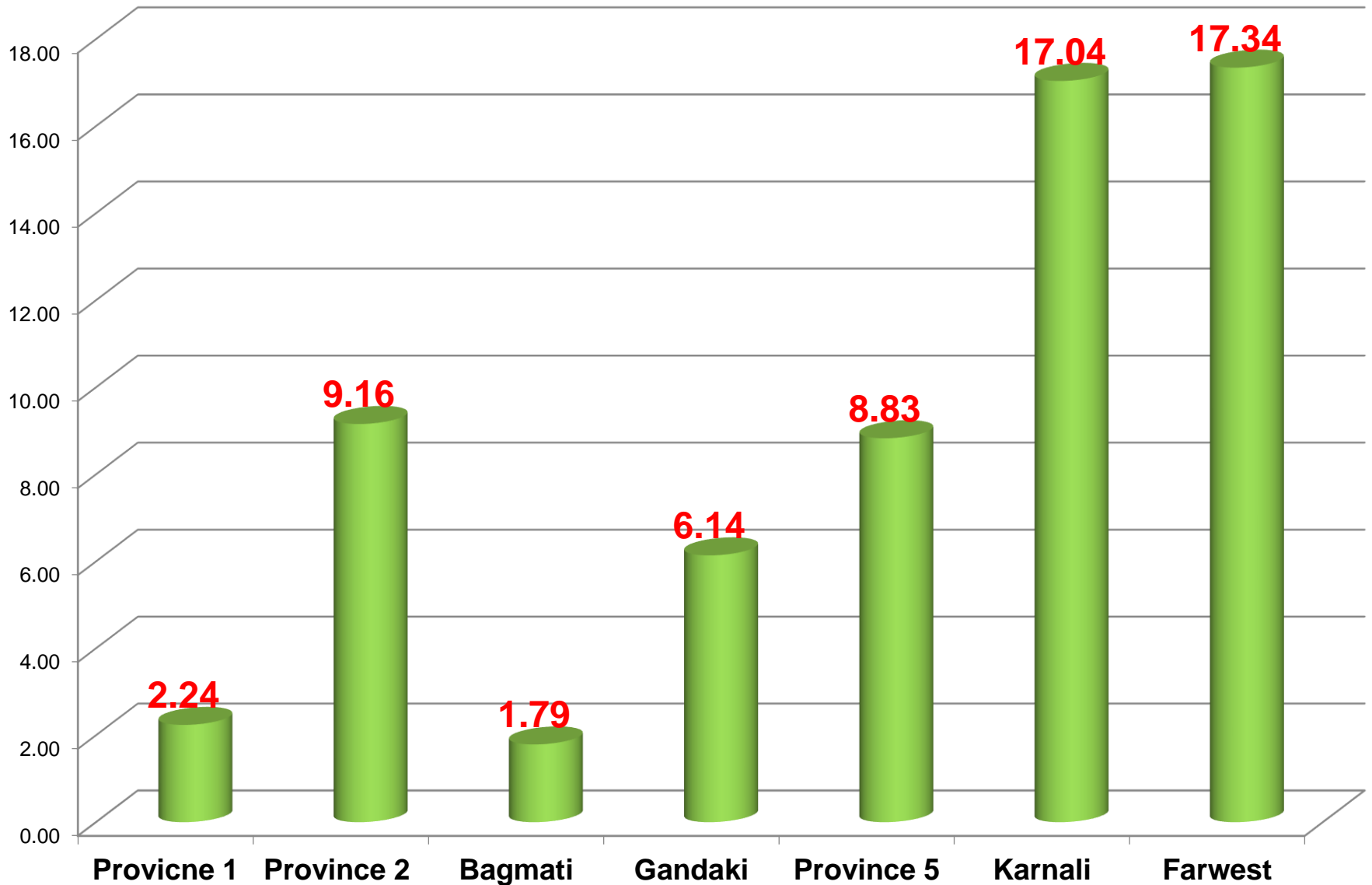


Demographic Distribution (n=19547)

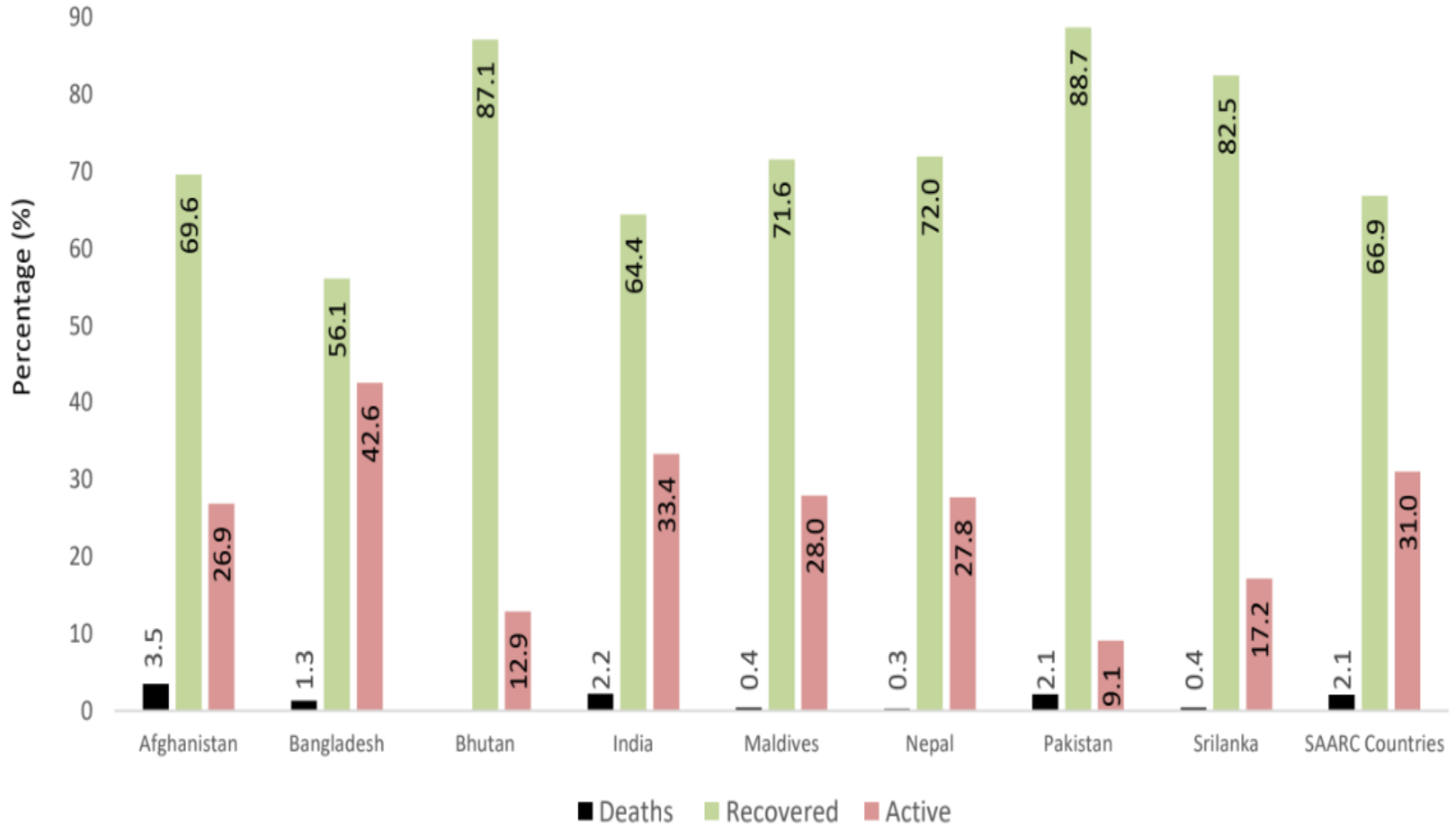


Province wise proportion of COVID Cases

(Per 10,000 population)

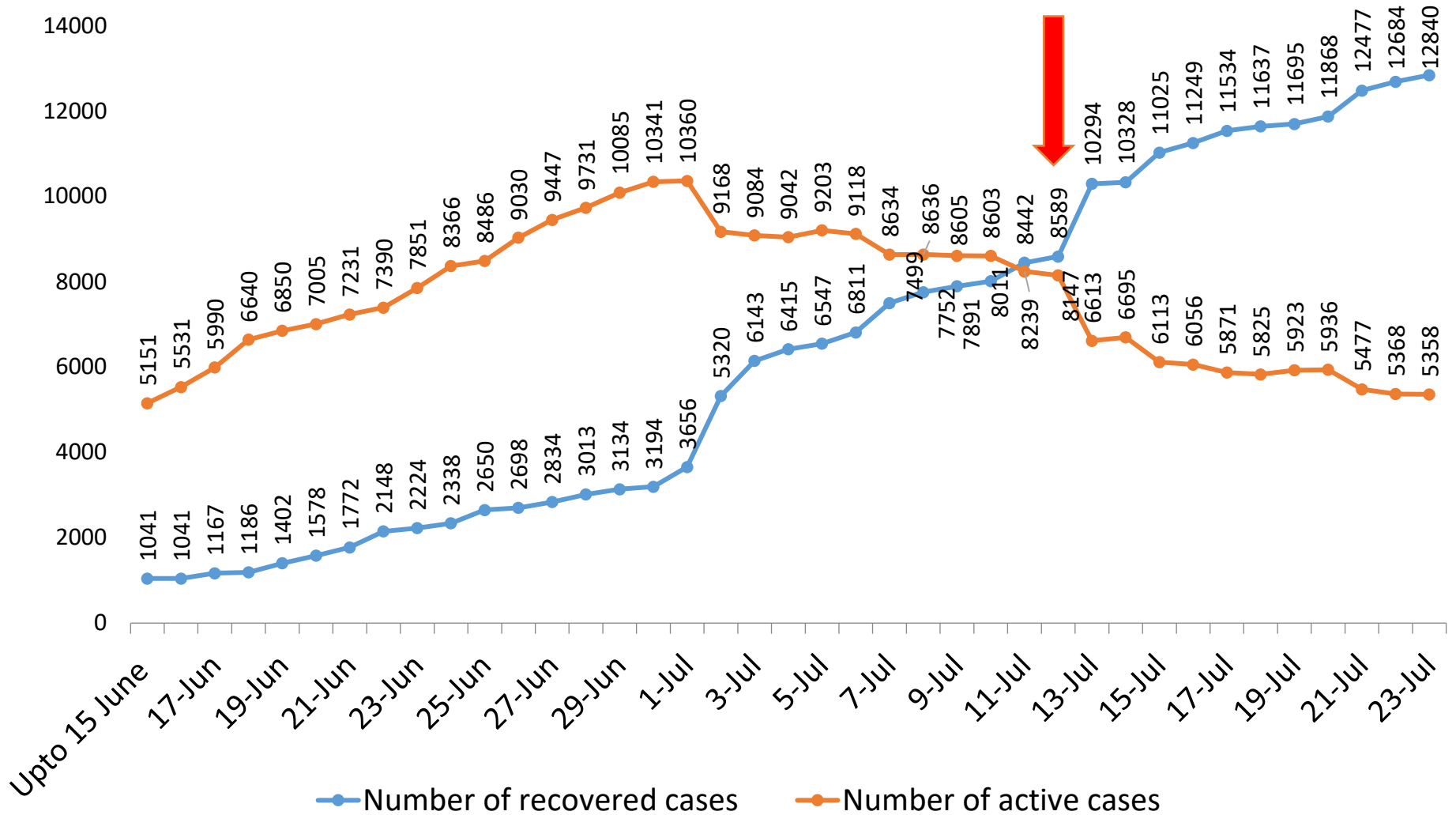


Comparison with SAARC Countries



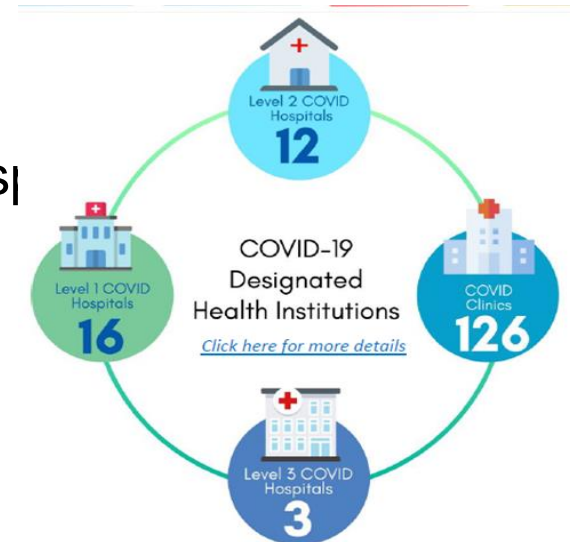
Source: <http://www.covid19-sdmc.org/>

Active and Recovered Cases(Cumulative)

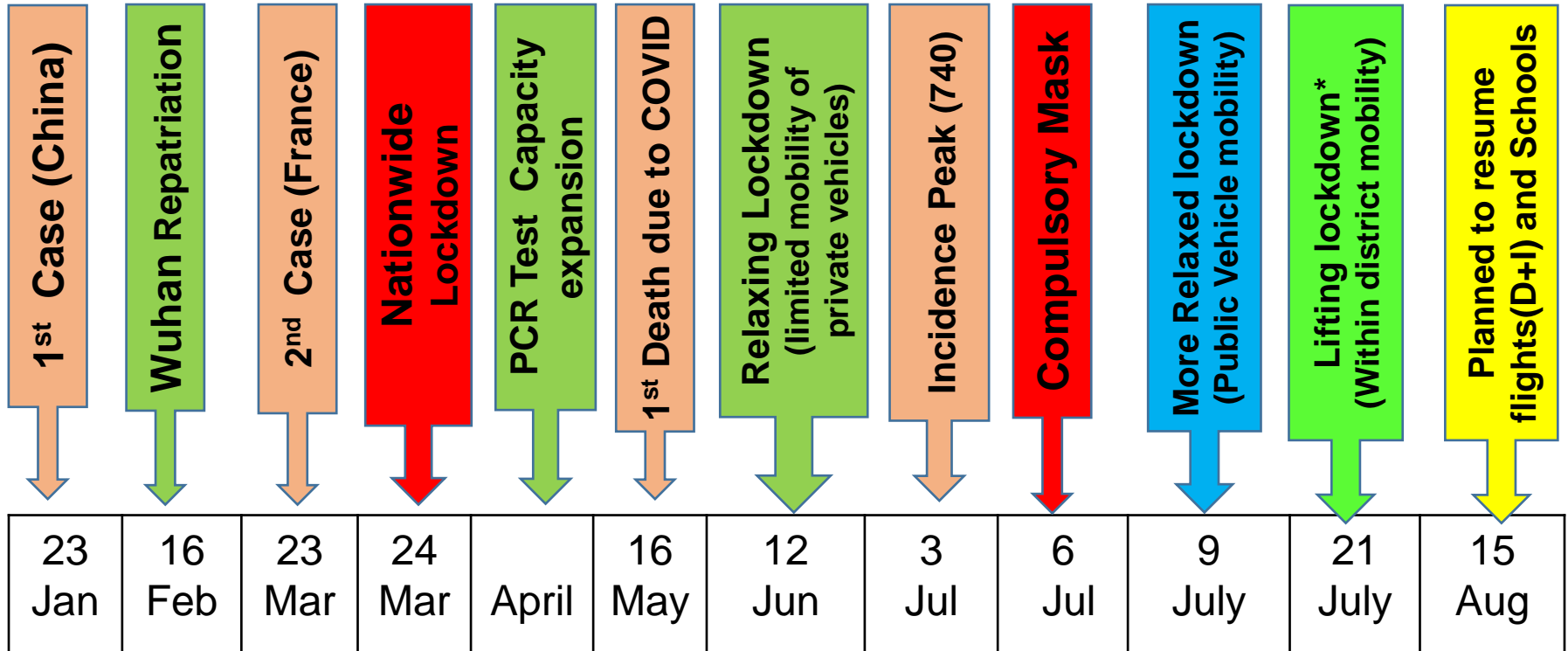


Key interventions/responses

- **Political Commitment:** CCMC, High level Committee led by DPM
- **Focused Health system:** ICS activation at MoHP, HEOC
- **Non Health Measures:** Lock down, Boarder seal, Public events-banned, School closure
- **Quarantine Provision:** Community Quarantine and Home Quarantine
- **Capacity Expansion:** Laboratory expansion (28 lab), HR Training, Hospital capacity expansion (ICU, Ventilators, Oxygen supply), Telemedicine
- **COVID-19 Dedicated Hospitals:** Level 1, 2, 3 Hospi
- **Isolation centers:** Targeted for Asymptomatic Cases
- **Guidelines, Standards and Protocols:**



Activities-Timeline



Information and Communication

Resources on COVID-19 are available at HEOC Website:

<https://heoc.mohp.gov.np/update-on-novel-corona-virus-covid-19/>

Hotline number for health institutions and health workers: 9851255839

COVID-19 Hotline Service	1133 (24/7) 1115 (6 AM to 10 PM) 9851255837, 9851255834 (8 AM to 8 PM)
Web Portal	https://covid19.mohp.gov.np/ https://heoc.mohp.gov.np http://www.edcd.gov.np/
Official Viber Community	Search “MoHP Nepal COVID-19” on Viber to join the community
Social Media	fb.com/mohpnep fb.com/HEOCMoHP fb.com/edcdnepal
Mobile Application	Search “Hamro Swasthya” on Google Play Store and Apple Store

Standards and Guidelines

SN	Standards and Guidelines
1	Directions on grants provision to hospital providing treatment for COVID-19 infection, 2077
2	Directions on operation of COVID-19 Unified Hospital, 2077
3	Interim guideline on delivery of COVID and other health care services in the context of COVID-19 epidemic - 2076
4	Protocol for operating COVID-19 Clinic
5	Infection Prevention and Control (IPC) when COVID-19 is suspected
6	Interim Clinical Guidance for Care of Patients with COVID-19 in Health Care Settings
7	COVID-19 SOP, Case Investigation and Tracing Form
8	Guideline on the use of Personal Protective Equipment (PPE) in the context of COVID-19
9	Brief procedure for the management of the bodies of people who died due to COVID-19 - 2076
10	Guideline to transport COVID-19 patients to hospitals
11	Clinical approach to a patient with suspected COVID-19
12	Introduction to Novel Corona Virus Disease (COVID-19) (Handbook for health workers)
13	Protocol for ILI Clinics (COVID-19 Screening Fever Clinics)
14	Flow Diagram for testing people in quarantine for COVID-19
15	Wondfo SARS-CoV-2 Antibody Procedure
16	Guideline on sample collection from people on COVID-19 quarantine
17	Flow Diagram for testing returnees for COVID-19 (RDT or PCR)
18	Standards for implementing and managing quarantine for COVID-19, 2076
19	Interim Pocket Book of Clinical Management of COVID-19 in Healthcare Setting
20	Safety measures to be followed at the point of entry (import) in the context of COVID-19 pandemic
21	Interim Guideline for the Establishment and Operationalization of Molecular Laboratory for COVID-19 Testing in Nepal
22	A standard protocol on the mobilization of non-military aircraft for COVID-19 management
23	Standard Operating Procedure (SoP) on Cleaning and Decontamination of the ambulance used in treatment and management of COVID-19
24	Directions on management of risk allowance to human resources engaged in treatment of COVID-19 infection -2077

Ongoing Interventions

Health Sector Emergency
Response Plan

COVID-19

Pandemic

Public health and social measures

Hospital-based interventions

Management and oversight



Government of Nepal
Ministry of Health and Population
May 2020

Major Highlights about Rapid Action Plan

- **Costed Plan:** worst and moderate case based scenario
- **Weekly Action Points;** Monitoring by Minister
- **Major interventions**
 - **Transmission Prevention:** POE Screening, Quarantine, CICT Team
 - **Case Management:** Isolation & Hospital Services (ICU, Oxygen, Telemedicine, WASH, HCWM, Training),EMDT
 - **Logistics:** Projection based procurement
 - **Risk Communication and community engagement**

Strengths, Challenges and Directions

Key Strengths

- Expansion of Laboratory Capacity
- Plans, Protocols, Guidelines, Standards
- Designated Hospitals
- Motivated & Dedicated HRH
- Logistics Management

Key Challenges

- Quarantine and Isolation Management
- Mobilization of CICTT and EMDT
- Public Health and Social Measures in lock down lifted situation
- Communicating policy decisions to targeted audiences

Future Directions

- Implementation Rapid Action Plan
- Expansion of Laboratories, Isolation and Quarantine
- Strengthening POE Screening
- CICTT capacity enhancement and mobilization
- Continuation of Routine Health services
- Digitization of Information

Lessons Learned

- **Timely lock down**: effective to flatten the epidemic curve
- **High level political engagement**: Facilitates multisectoral engagement
- **Domestic preparedness** only is not sufficient to manage the pandemic.
- **Neighbors Cooperation** crucial to grip the situation
- **Role of Local level authorities** for Quarantine management and Contact Tracing

Considerations

- Continuation of **routine health services**
- Maintaining **economic activities**
- Coordination among **three tiers** of Government
- **Risk communication** and community engagement
- Role of **host countries** for Foreign Citizens during pandemic rescue

Points for Q&A session

How to **trade off** between PHSM and Economic Activities?

How to **adapt routine life and social functions** with COVID situation? (**Responsible CIVIC Code**)

Health system **reform** ?

Lock down-lifted, Economic activities-resumed; how to **minimize risk** of COVID transmission?

Thank you





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The project is funded by the Center for International Health of the University Hospital Munich (LMU) within the Higher Education Excellence in Development Cooperation (Exceed) program of the German Academic Exchange Service (DAAD) and the Federal Ministry for Economic Cooperation and Development (BMZ) – Germany



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