COVID-19: Situation, Responses, Lessons Learned (Series#3)

Brazil | India | Nicaragua | Tanzania

Date: September 4, 2020 | Time (1:30PM-3:00 PM) GMT | 7:15PM NPT | 3:30PM CET | 6:30AM PST

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Brazil

Dr. Jugal Kishore
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India

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Princeton University
Tanzania
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<sup>CIH</sup> through DAAD/Exceed Program, funded by BMZ
Today’s presentation

Current collaborators
- Brazil
- Tanzania
- India

Potential collaborators
- Nicaragua
## Countries and Speakers

<table>
<thead>
<tr>
<th>Country</th>
<th>Country info</th>
<th>Speaker info</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>South America</td>
<td>211.8 Million</td>
</tr>
<tr>
<td>India</td>
<td>South Asia</td>
<td>1.4 Billion</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>Central America</td>
<td>6.4 Million</td>
</tr>
<tr>
<td>Tanzania</td>
<td>East Africa</td>
<td>54 Million</td>
</tr>
</tbody>
</table>

Sources: [https://data.worldbank.org/](https://data.worldbank.org/); [www.healthdata.org](http://www.healthdata.org); [www.who.int/workforcealliance](http://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 Brazil

Prof. Dr. Creuza Rachel Vicente
Universidade Federal do Espírito Santo
Brazil
Introduction

Brazilian health system
Brazilian Federal Constitution 1988

- Art. 196: “Health is a universal right and duty of the State”
- Art. 198: Unique and decentralized health system
COVID-19 situation

SARS-CoV-2 introduction and dispersion
First confirmed case: Feb 26, 2020

Candido et al., 2020
COVID-19 situation

Cases per 1 million population, Sep 03, 2020
Brazil = 3,950,931 (18,587 per million population)

WHO, 2020
COVID-19 situation

Newly reported cases in last 24 hours, Sep 03, 2020
Brazil = 42,659

WHO, 2020
COVID-19 situation

Confirmed cases per day, Feb 26 to Sep 03, 2020
Recovered = 3,210,405*

*Brasil. Ministério da Saúde, 2020

WHO, 2020
COVID-19 situation

Deaths per 1 million population, Sep 03, 2020
Brazil = 122,596 (576 per million population)
COVID-19 situation

Newly reported deaths in last 24 hours, Sep 03, 2020
Brazil = 1,215
COVID-19 situation

Confirmed deaths per day, Feb 26 to Sep 03, 2020
Fatality rate = 3.1%*

*Brasil. Ministério da Saúde, 2020
COVID-19 situation

Cases and deaths per municipality

Cases, Sep 03, 2020

Deaths, Sep 03, 2020

Brasil. Ministério da Saúde, 2020
COVID-19 situation

Tendency

Cases, Aug 29, 2020

Deaths, Aug 29, 2020

New cases
- Reduction (11)
- Stabilization (7)
- Increase (9)

New deaths
- Reduction (17)
- Stabilization (7)
- Increase (3)

Brasil. Ministério da Saúde, 2020
Key interventions/responses

Timeline

Croda et al., 2020
Key interventions/responses

Timeline

Croda et al., 2020
Key interventions/responses

Protocols and training

MINISTÉRIO DA SAÚDE

CORONAVÍRUS
COVID-19

Plano de Contingência Nacional para Infecção Humana pelo novo Coronavírus COVID-19
Centro de Operações de Emergências em Saúde Pública | COE-COVID-19

Brasília - DF - Fevereiro de 2020

CORONAVÍRUS
COVID-19

PROTOCOLO DE MANEJO CLÍNICO DO CORONAVÍRUS (COVID-19) NA ATENÇÃO PRIMÁRIA À SAÚDE

Versão 6

Brasília - DF
Março de 2020
Secretaria de Atenção Primária à Saúde (SAPS)

GUÍA DE VIGILÂNCIA EPIDEMIOLÓGICA
EMERGÊNCIA DE SAÚDE PÚBLICA DE IMPORTÂNCIA NACIONAL PELA DOENÇA PELO CORONAVÍRUS 2019

Vigilância de Síndromes Respiratórias Agudas COVID-19

05 de agosto de 2020

Brasília - DF - 2020

Brasil. Ministério da Saúde, 2020
Key interventions/responses

“O Brasil Conta Comigo”
Ordinance 639, March 31, 2020
- Training health professionals
- Registration of health professionals
Key interventions/responses

Field hospitals

Key interventions/responses

Molecular tests performed

Fonte: Gerenciador de Ambiente Laboratorial (GAL), 2020

Brasil. Ministério da Saúde, 2020
Key interventions/responses

Lockdown
Supreme Court: ADI 6,341 - March 24, 2020
- Number of cities with lockdown

Alves et al., 2020
Lessons Learned

Ministry of Health

Apr 06, 2020

Bolsonaro fires popular health minister after dispute over coronavirus response

- Luiz Henrique Mandetta defended physical distancing
- Far-right president has downplayed impact of coronavirus

May 15, 2020

Brazil loses second health minister in less than a month as Covid-19 deaths rise

Nelson Teich's resignation was announced in message from health ministry after Bolsonaro sacked Luiz Mandetta in April

- Coronavirus - latest updates
- See all our coronavirus coverage

The Guardian, 2020
Lessons Learned

Ministry of Health

Interim Minister
Lessons Learned

Communication

Brasil. Ministério da Saúde, 2020 (Facebook)
Lessons Learned

Communication

Coronavirus: Brazil resumes publishing Covid-19 data after court ruling

9 June

Coronavirus pandemic

Brazil has recorded the second-highest number of coronavirus cases in the world

BBC, 2020

Ministério da Saúde (Facebook) - "Atualização - O Ministério da Saúde divulga diariamente as informações sobre a #Covid19 no Brasil. Os dados desta terça-feira (01/09) estão atualizados. Acesse o Localiza SUS e confira a situação nacional e de todos os estados: https://localizasus.saude.gov.br #PraCegoVer... Ver mais"

Confira as informações atualizadas da Covid-19 no Brasil em 01/09/2020

Acesse: localizasus.saude.gov.br

Brasil. Ministério da Saúde, 2020 (Facebook)
Lessons Learned

Vulnerable population

Risk of mortality in 11,321 hospitalized patients

Baqui et al., 2020
Lessons Learned

Vulnerable population

Brazil's favelas forced to fight coronavirus alone

Brazil's densely populated favela communities have been largely abandoned by the state in the fight against coronavirus. Residents are now organizing their own responses to contain the pandemic.
Lessons Learned

Vulnerable population
Lessons Learned

Vulnerable population
Indigenous people
Sep 03, 2020
- Confirmed cases: 29,609
- Deaths: 779

Brazil's court rules government must protect tribes from coronavirus

AFFECTED TRIBES: 156

Reuters, 2020

Socioambiental, 2020
Considerations

Necessity to reinforce IHR capacities
- Health service provision (47%)
- Points of entry (60%)

Sistema Único de Saúde
- Finance (restrictions of PEC 246/16)

Intersectoral actions
- Approach inequities and social determinants of health
References

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

Dr. Jugal Kishore
MBBS, MD (Com Med AIIMS), PGCert. H&FWM,
PGDEE, MSc (Sustainable Dev), ACME, PhD (Psychiatry),
FAMS, FIMSA, FIPHA, FIAPSM, FIPMAAMS, FISCD, FIASS, FIAAH

Director Professor & Head
Department of Community Medicine
Vardhman Mahavir Medical College & Safdarjung Hospital
New Delhi, India
### COVID-19 situation

Coronavirus Cases: 24,612,360  
Deaths: 835,312  
Recovered: 17,080,960  
ACTIVE CASES 6,696,088  
Currently Infected Patients 6,634,690 (99%) in Mild Condition  
61,398 (1%) Serious or Critical  
CLOSED CASES 17,916,272  
Cases which had an outcome: 17,080,960 (95%)  
Recovered / Discharged 835,312 (5%) Deaths  

<table>
<thead>
<tr>
<th>#</th>
<th>Country, Other</th>
<th>Total Cases</th>
<th>New Cases</th>
<th>Total Deaths</th>
<th>New Deaths</th>
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<tbody>
<tr>
<td>1</td>
<td>USA</td>
<td>6,046,634</td>
<td>+46,286</td>
<td>184,796</td>
<td>+1,143</td>
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<tr>
<td>2</td>
<td>Brazil</td>
<td>3,764,493</td>
<td>+42,489</td>
<td>118,726</td>
<td>+970</td>
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<tr>
<td>3</td>
<td>India</td>
<td>3,384,575</td>
<td>+76,826</td>
<td>61,694</td>
<td>+1,065</td>
</tr>
</tbody>
</table>

Possible outliers: 0 - 27 days
Newly Infected vs. Newly Recovered in India

New Cases vs. New Recoveries

(Number of newly infected vs. number of recovered and discharged patients each day)
Preventive and Control Strategies

- Activation of Epidemic Disease Act/Public Health Act
- International entry
- Surveillance/ Outbreak investigations/ Contact tracing
- Risk communication
- Community Involvement
- International comparison of strategies
- Triage system
- Isolation
- **Quality of care**/ Infection control/Biomedical waste management
- Handling Dead bodies
- **Mental Health/Counseling/Stress management/Dealing with stigma**
Key interventions/responses

1. Sustainable development
2. Change in Political Leadership
3. Scientific aquamen of the people should raise
4. Democratic system should be strengthen and Human values should be cherished
Lessons Learned

1. Infectious disease doesn't respect any border, race, religion, economic status and caste.

2. Investment on Health is highly beneficial at the family, community, national and International level.

3. Basic principals on Sanitation and Hygiene always work.

4. Use of Technology

5. Change of Lifestyle
Considerations

Development should be based on

People Action

State Action

International Action

Localized

Regionalized

Globalized
Sustainable Development

= Economic Development should be sustained

- More industries
- More buildings
- More cars
- More home appliances
- More personal gadgets
- More tourism, etc…

Dr. Aurora Aragón
Independent consultant
Nicaragua
COVID-19 situation - Context

Sin señales de recuperación
Las perspectivas de crecimiento presentadas por el Banco Mundial ubican a Nicaragua como el país de la región con el peor desempeño económico durante los próximos dos años.

% DE CRECIMIENTO DEL PIB POR AÑO

<table>
<thead>
<tr>
<th>País</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belice</td>
<td>1.2</td>
<td>1.5</td>
<td>1.9</td>
<td>2.6</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>4.2</td>
<td>3.2</td>
<td>2.7</td>
<td>2.6</td>
</tr>
<tr>
<td>El Salvador</td>
<td>2.6</td>
<td>2.3</td>
<td>2.8</td>
<td>2.5</td>
</tr>
<tr>
<td>Guatemala</td>
<td>3.1</td>
<td>2.8</td>
<td>2.6</td>
<td>2.7</td>
</tr>
<tr>
<td>Honduras</td>
<td>3.8</td>
<td>4.8</td>
<td>3.6</td>
<td>3.8</td>
</tr>
<tr>
<td>Panamá</td>
<td>4.7</td>
<td>4.9</td>
<td>5.0</td>
<td>5.4</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>-3.8</td>
<td>0.5</td>
<td>4.5</td>
<td>5.4</td>
</tr>
</tbody>
</table>

Fuente: Banco Mundial (BM)
COVID-19 situation - 2020, Two parallel worlds

• Government Reckless response to COVID-19
COVID-19 situation - Two parallel worlds

Acumulado casos sospechosos por Observatorio y casos confirmados por MINSA

- Observatorio
- MINSA

Estimaciones del régimen
Se calcula que 75% (24,375) de los casos pueden haber sido leves o moderados.

Los fallecidos son el 80% de los pacientes que requieren cuidados intensivos, por lo que se calcula que 1,016 ingresarán a UCI.

Para atender a los pacientes graves se requieren:
- 451 camas de hospitalización (estancia media de 10 días)
- 79 camas de cuidados intensivos (estancia media de 14 días)

MUERTES NO SE PRONOSTICAN
Alejandro Lagos, especialista en Salud Pública, declaró que si el régimen está preocupado por la salud de los nicaragüenses, debería de prever por la barrera de contención del coronavirus en las comunidades, barrios y municipios del país. En este de la epidemia no se puede hacer pronóstico (de muertes), esto no se puede pronosticar, eso es un grave error y una irresponsabilidad más en la que juga el gobierno de Daniel Ortega. Lógicamente va a haber mortalidad y esos que inventaron los 800, mil o dos mil (muertos) ya a tratar de ajustar la cifra para que no sepan que no se pronostican las muertes.
Gobierno de Daniel Ortega ha ocultado más de 6200 casos de covid-19 en Nicaragua
Mientras el Ministerio de Salud afirmaba públicamente que a principios de mayo había 25 casos de covid-19 en Nicaragua, las pruebas realizadas confirmaban 2253 casos más. Al 24 de julio de 2020, el Minsa había ocultado 6243 casos.

Fuente: Análisis de datos de pruebas del covid-19 en Nicaragua, por el doctor Álvaro Ramírez.
Key interventions/responses

**Government**
From the beginning to today
- No restrictions
- Masks forbidden among health personnel
- Promotion of mass activities
- Governmental institutions, public schools and public universities were forced to stay open
- Primary Health Care personnel visited houses at communities (without protection) asking if there was any sick person and providing recommendations
- Government media misinformed the population not to be afraid of the virus, that with influenza vaccines were protected, or that our population was strong to resist the viral infection insinuating that only rich people is affected
- Lab tests (rt-pcr) were not available for hospitals and private services but Ministry of Health
- Death certificates of symptomatic covid cases were officially declared as “community pneumonia” unrelated to covid-19
- Until now, Government institutions has not stopped their work, those people that got ill have been permitted to stay at home without being tested or officially diagnosed.

**Citizenship/Private companies, Organizations**
- Creation of Multidisciplinary scientific committee (education, information through fb, twitter, youtube)
- Nicaraguan Medical Union
- Citizenship Observatory covid-19
- Catholic church and civil organizations (collecting money or donations to provide PPE to health personnel)
- Solidarity chains (in neighborhoods or online ex: journalists)
- Covid-19 line for inquiries
- Call for voluntary quarantine if it was possible
- Distribution of cleaning kits and masks in popular markets and disadvantaged communities
- As the disease progressed, and news of several death due to covid-19 were spread along communities, parents, voluntarily decided not to send their children to schools, elderly people stayed at home,
- In parallel, private clinics, and labs were crowded with people looking for clinical diagnosis, and medical prescriptions and pharmacies were crowded with people buying medicines with and without prescription
Key interventions/responses

Nicaragua: Doctors Fired for Covid-19

Medical Associations in Nicaragua Call for a 4-week “Voluntary Quarantine”

Reportan 104 sanitarios y 44 maestros muertos por COVID-19 en Nicaragua

Cases Unreported Amid Government Mismanagement
Lessons Learned

• As time went by, and with government officials seriously ill or dead from COVID-19, a growing number of officials began to use protection in public

• With hospitals crowded with severely ill patients, and reduced health personnel (some ill, some died), means of protection has been allowed

• Mass activities have been reduced stimulated by local leaders decision or by not participation of population, but not by the high level

• The large informal sector, those underemployed never stopped working, but now is more frequent to see them wearing masks and carrying alcohol with them

• Supermarkets, government institutions, public restaurants and services are now measuring temperature and provide alcohol to clean the hands of customers.
Considerations

• Nowadays, as the pandemic goes, population has become to be relaxed..

• Mass activities continue to be stimulated by the government

• Due to severe criticisms, at the end of May, the government presented their report arguing that their strategy responds to the need to keep the balance of the economic impact with the pandemic impact… Although not officially informed, pro-government media and government officials, have argued that Nicaragua decided for herd immunity comparing their decision with Sweden…

• Underreporting and under-registration of cases and deaths do not allow to understand the real impact of the pandemic in Nicaragua

• It is believed that we have seen only the tip of the iceberg
Points for Q&A session

• Include any question that you may want to highlight in the Q&A session
COVID-19: Situation, Response, Lessons Learned in Dar es Salaam, Tanzania

Chambi Chachage
Princeton University
Tanzania: Demographics - I

Population Distribution and Average Annual Intercensal Growth Rate by Region, Tanzania

<table>
<thead>
<tr>
<th>Region</th>
<th>Population (number)</th>
<th>2000 Census</th>
<th>2012 Census</th>
<th>2019 Projections*</th>
<th>Annual Growth Rate (projected)</th>
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</thead>
<tbody>
<tr>
<td>Tanzania</td>
<td>34,443,603</td>
<td>44,928,923</td>
<td>55,890,747</td>
<td></td>
<td>3.1</td>
</tr>
</tbody>
</table>

## Tanzania: Demographics - II

### Summary of Selected Demographic Indicators; Tanzania, 2019

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Tanzania</th>
<th>Mainland</th>
<th>Zanzibar</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Fertility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child-Woman Ratio</td>
<td>0.7</td>
<td>0.7</td>
<td>0.6</td>
</tr>
<tr>
<td>*Mortality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Life Expectancy at Birth</td>
<td>65.5</td>
<td>65.4</td>
<td>67.6</td>
</tr>
<tr>
<td>Life Expectancy at Birth: Male</td>
<td>63.2</td>
<td>63.1</td>
<td>65.2</td>
</tr>
<tr>
<td>Life Expectancy at Birth: Female</td>
<td>67.8</td>
<td>67.7</td>
<td>70.0</td>
</tr>
<tr>
<td>*Vital Rates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Growth Rate (Percentage)</td>
<td>3.1</td>
<td>3.1</td>
<td>2.9</td>
</tr>
<tr>
<td>*Annual Births and Deaths</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Births</td>
<td>2,101,519</td>
<td>2,052,361</td>
<td>49,158</td>
</tr>
<tr>
<td>Deaths</td>
<td>364,920</td>
<td>357,484</td>
<td>7,436</td>
</tr>
<tr>
<td>*Population</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percent Females 15-49</td>
<td>48.2</td>
<td>48.2</td>
<td>49.6</td>
</tr>
<tr>
<td>Sex Ratio</td>
<td>95.9</td>
<td>95.9</td>
<td>94.8</td>
</tr>
<tr>
<td>Dependency Ratio</td>
<td>0.9</td>
<td>0.9</td>
<td>0.8</td>
</tr>
<tr>
<td>Median Age</td>
<td>18</td>
<td>18</td>
<td>19</td>
</tr>
</tbody>
</table>

*Source: National Bureau of Statistics; National Population Projections*

*Note: * Projected figures based on 2012 Population and Housing Census

COVID-19: First Phase (March-May 2020)

**Source:** Tanzania’s National Bureau of Statistics (NBS).
COVID-19: First Phase (March-May 2020)

Source: Tanzania’s Ministry of Health, Community Development, Gender, Elders and Children (MoHCDEC).
COVID-19: First Phase (March-May 2020)

Source: Tanzania’s Ministry of Health, Community Development, Gender, Elders and Children (MoHCDEC)
COVID-19: First Phase (March-May 2020)

Source: Tanzania’s Ministry of Health, Community Development, Gender, Elders and Children (MoHCDEC).
COVID-19: The Second Phase (June 2020-...)

A Problem of Denial: Why Tanzania Could Lose the War Against COVID-19

President Magufuli’s response to the current coronavirus crisis has been far from exemplary. Some of his actions, like urging pubs to throw post-coronavirus parties and firing those who question his bizarre remedies for COVID-19, could actually put the lives of thousands of Tanzanians at risk.

Published 3 months ago on May 29, 2020
By Mwanafa Salim

COVID-19 is casting Magufuli in the worst light, in an election year

Magufuli is facing a crucial test as leader. His response to the coronavirus pandemic is under scrutiny, and his policies are being criticized for potentially putting lives at risk.

The Curious Case of Covid 19 in Tanzania: The Magufuli Approach

The Elephant is in conversation with Dr Chambi Chagage, a Tanzanian professor of African Studies at Princeton University.
Pursuing herd immunity in Tanzania with data on lockdown

Published on June 10, 2020

Aidan Eyakuze
Board Member at Open Government Partnership

Sweden is being vilified for pursuing herd immunity against Covid-19 at the relatively high cost of lives. The UK tried it for a while until the rising number of deaths – both real and projected – forced the government to introduce a lockdown.

*We seem to be pursuing a strategy of herd immunity. And we are doing it in data darkness.*

Tanzania’s approach has been different. Rather than putting people on lockdown, we have put data on lockdown. People are more or less free, even encouraged to roam, while observing largely voluntary protective behaviours: mask-wearing, hand washing and social distancing. Data, meanwhile, is under tighter control than ever before.
COVID-19: The Second Phase (June 2020-…)

The one million dollar question – how does @AfricaCDC gets (or is it estimates) its #data on #tests done in #Tanzania (in May 3 it was 652 and in June 10 it was 2,680)?
President Magufuli declares Tanzania free from Covid-19

By Alex Malanga @ChiefMalanga
amalanga@tz.nationmedia.com
Andrew Mwanguhya 🇹🇿 🍀 @TheLoveDre · Aug 30

I have a question; a question millions others must also be grappling with but without answers.

For how long is the world going to ignore #Tanzania? For how long are we going pretend these guys are JUST hiding cases? In RED, last week. 60k plus. In yellow-green, today. 60k plus
COVID-19: The Second Phase (June 2020-...)

Daniel Maeda @MaedaBiotech · 11h
Replied to @MaedaBiotech
1) The #SARSCoV2 most likely entered #Africa way before Feb 2020, probably October 2019. Unfortunately archiving of clinical #nasopharyngeal swabs is challenging, so we might not know for sure...

Daniel Maeda @MaedaBiotech · 11h
2) Most Africans like so many in other parts of the world have had infections with non-#COVID19 #coronaviridae during their lifetime so if the cross reacting #Tcell stories are to be believe then lots of people already had them and might have offered some sort of protection

Daniel Maeda @MaedaBiotech · 11h
3) What might be unique for most African countries is the significant interaction with potential hosts/reservoirs of novel coronaviridae in urban-wildlife interface areas. Adding yet another layer of inoculum etc from early ages and with repeated exposure might have memory cells

Daniel Maeda @MaedaBiotech · 11h
4) #Africa is a really young continent with a tried and tested immune system. Expecting morbidity and mortality rates of Italy, Spain etc to be replicated in Africa would be to discount this as a factor completely. Something data from the whole world isn't doing.

Daniel Maeda @MaedaBiotech · 11h
5) The DHS did a presentation at the White House some months back about influence of UV, humidity, temperature etc if that data is to be believed then it might explain why most African countries which are in the tropics have had a different trajectory, UV exposure is quite high.
## Key interventions/responses

### Government/Public Sector:
- Testing + Contact Tracing/Surveillance
- Mandatory Quarantine – in Hotels then Hostel
- Designating Hospitals e.g. Amana + Mloganzila
- Adding potential areas e.g. Saba Saba Grounds
- Public Awareness Campaigns
- Deploying Community Health Workers (CHW)
- Mobilizing Funds/Fundraising
- Closing Schools, Colleges, and Universities
- Manufacturing + Providing Personal Protective Equipment (PPE)
- Regulating public transport e.g. “level seat rule”
- Launching “Afya Call Center” [Afya means Health]

### Companies/Private Sector:
- Contributing to the government’s National Relief Fund
- Manufacturing + Providing masks
- Manufacturing + Providing sanitizers & decontaminators
- Manufacturing + Providing Personal Protective Equipment (PPE)
- Public Awareness Campaigns
- Providing online education e.g. ShuleDirect and Mtabe
- Providing water for washing hands

### Citizens/Civic Organizations
- Social/Physical distancing
- Washing hands with soap and running water
- Making and using traditional remedies
- Public Awareness Campaigns
- Mobilizing Funds + Resources e.g. Diaspora Council of Tanzanians in America (DICOTA)
- Contributing to the government’s National Relief Fund
- Producing skits to teach prevention e.g. Chama cha Wanawake wa Tasnia ya Filamu Tanzania (CWTF).
- Producing songs to teach prevention e.g. Rayvanny
- Advocacy e.g. against religious gatherings
- Appeals e.g. against night burials and restrictions

### Medical/Health Workers:
- Testing + Contact Tracing
- Counselling + Treating
- Public Awareness Campaigns
- Mobilizing Funds + Resources e.g. Medical Association of Tanzania (MAT)
- Manufacturing + Providing sanitizers
- Manufacturing + Providing Personal Protective Equipment (PPE) e.g. Muhimbili National Hospital (MNH)
- Lobbying + Advocacy e.g. MAT
- Concocting herbal medicine e.g. COVIDOL.
- Training of Community Health Workers (CHW)
- Researching and providing policy recommendations
Key interventions/responses

WaterAid Tanzania, in collaboration with @UniofDar have installed new handwashing facilities at BRT stations across the city. Washing your hands with soap for 20 seconds is one of the key ways to prevent the spread of COVID-19. Clean hands save lives!

#JikingeWakingeWengine

12:35 PM - Jun 1, 2020 - Twitter for Android

WaterAid Tanzania
@WaterAidTZ

We are installing new handwashing facilities across Dar es Salaam so that citizens can practice washing their hands with soap, helping to prevent the spread of COVID-19. These contactless stations were designed with @UniofDar. Jikinge, wakinge wengine.

#milkonosafitanzasiasalama

11:20 AM - May 26, 2020 - Twitter for Android

WaterAid Tanzania
@WaterAidTZ

Last week, we launched new handwashing facilities with @UniofDar, at Ubungo Bus Terminal & Kimara, Gerezani & Kivukoni bus stations! This will support citizens to practice handwashing with soap - one of the most effective ways protect yourself & others from illnesses.

7:22 AM - Jun 16, 2020 - Twitter for Android

WaterAid Tanzania
@WaterAidTZ

Last week, we launched new handwashing facilities with @UniofDar, at Ubungo Bus Terminal & Kimara, Gerezani & Kivukoni bus stations! This will support citizens to practice handwashing with soap - one of the most effective ways protect yourself & others from illnesses.

7:24 AM - Jun 16, 2020 - Twitter for Android
“This study supports the use of cotton cloth (at least double layer) face coverings in public settings where other social distancing measures are difficult to maintain to prevent the spread of infection from the wearer” – Authors of the Article, all based at Muhimbili University of Health and Allied Sciences (MUHAS)

Source: https://www.researchsquare.com/article/rs-28705/v1
“On the other hand, body temperature screening (fever) is the major test performed at points of entry, i.e., airports, in the returning travelers in most of the countries with limited resources. However, the recent report on asymptomatic contact transmission of COVID-19 and travelers who passed the symptoms-based screening and tested positive for COVID-19 using reverse transcription polymerase chain reaction (RT-PCR) challenges this approach as body temperature screening may miss travelers incubating the disease or travelers concealing fever during travel. On this note, travel restrictions to and from high risk areas and/or 14 days quarantine of travelers coming from high risk areas are recommended to prevent possible importation of COVID-19. Currently, RT-PCR is a reliable test in detecting both symptomatic and asymptomatic COVID-19”—Authors, all based at the School of Public Health and Social Sciences, Muhimbili University of Health and Allied Sciences (MUHAS)

Key interventions/responses

PPE OUTPUT UP BY 400 PERCENT

PRODUCTION of Personal Protective Equipment (PPE), for health workers who are taking care of Covid-19 patients has increased by 400 percent in one month since the Muhimbili National Hospital embarked on production of the protective gears.

Source: Daily News, a government newspaper.
Key interventions/responses

On 17 July 2020, we made a contribution to Muhimbili National Hospital’s personal protective equipment (PPE) factory in Dar es Salaam, which manufactures PPE for the hospital use. PPE remains essential for the frontline healthcare workers who are combating the Covid-19 pandemic.
COVID-19: This Tanzanian recycling plant is retooling to make face masks

This Tanzanian business has started making face masks during COVID-19

Image: REUTERS/Stringer

In collaboration with
Reuters

04 Jun 2020

Reuters Staff

This article was updated on 19 August 2020.

- A recycling plant in Tanzania has started making and selling plastic face masks during the COVID-19 pandemic.
- The plant used to process and export waste paper to customers in China and India.
- Zaidi Recyclers has made thousands of shields so far and they are being used in hospitals around the country.
Key interventions/responses

We undertook crowd sourcing of 3D printers across Tanzania...about 12 printers were solicited...at the time of writing, this collaboration had led to designing, fabricating, and distribution of over 2000 units of various PPEs to support Tanzanian front line health workers in various public and private hospitals” - https://www.tz.undp.org/content/tanzania/en/home/blog/PPE3DprintingtofightCOVID19inTanzania.html
Key interventions/responses
Key interventions/responses
Key interventions/responses
Lessons Learned

- **Leaders** can be role models for better or for worse
- **People** can take +ve action or become complacent
- **Culture** can be a +ve or -ve tool during pandemics
- **Religion** can help or undermine containment efforts
- **Information** can be empowering or disempowering
- **Social Media** can be a supportive or anxious space
- **Health** can be a public-private or a personal matter
Considerations

• Action(s) taken during the first, proactive phase may have helped Tanzania weather COVID-19.

• Lack of public data on COVID-19 in the current second, complacent phase inhibits projections.

• Both phases continue to inspire some plausible hypotheses, but they remain that – speculative.
Thank You

Webinar Recording will be available via:

www.cih.lmu.de