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IS NOW

SCIENCE FOR ACHIEVING  
SUSTAINABLE DEVELOPMENT



GLOBAL SUSTAINABLE  
DEVELOPMENT REPORT

2019

# *Resilience of the 2030 Agenda in the Pandemic: lessons for SIDS & countries in special situations*

DAVID SMITH, CO-AUTHOR, UN GLOBAL  
SUSTAINABLE DEVELOPMENT REPORT 2019 &  
COORDINATOR, INSTITUTE FOR SUSTAINABLE  
DEVELOPMENT, THE UNIVERSITY OF THE WEST  
INDIES

# Pandemics WHO

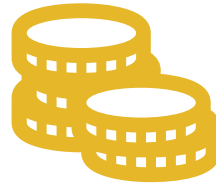
- ▶ Chikungunya V
- ▶ Cholera B
- ▶ Crimean-Congo haemorrhagic fever V
- ▶ Ebola virus disease V
- ▶ Hendra virus infection V
- ▶ Influenza (pandemic, seasonal, zoonotic) V
- ▶ Lassa fever V
- ▶ Marburg virus disease V
- ▶ Meningitis B F V
- ▶ MERS-CoV V
- ▶ Monkeypox V
- ▶ Nipah virus infection V
- ▶ Novel coronavirus (2019-nCoV) V
- ▶ **Plague** B
- ▶ Rift Valley fever V
- ▶ SARS V
- ▶ **Smallpox** V
- ▶ Tularaemia B
- ▶ Yellow fever V
- ▶ Zika virus disease V
- ▶ ?

# COVID-19 Impacts & Mitigation



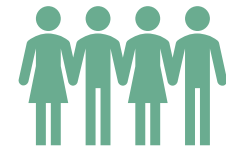
## Health

7.2 million cases  
407,000 deaths  
3.3 million recovered



## Economic

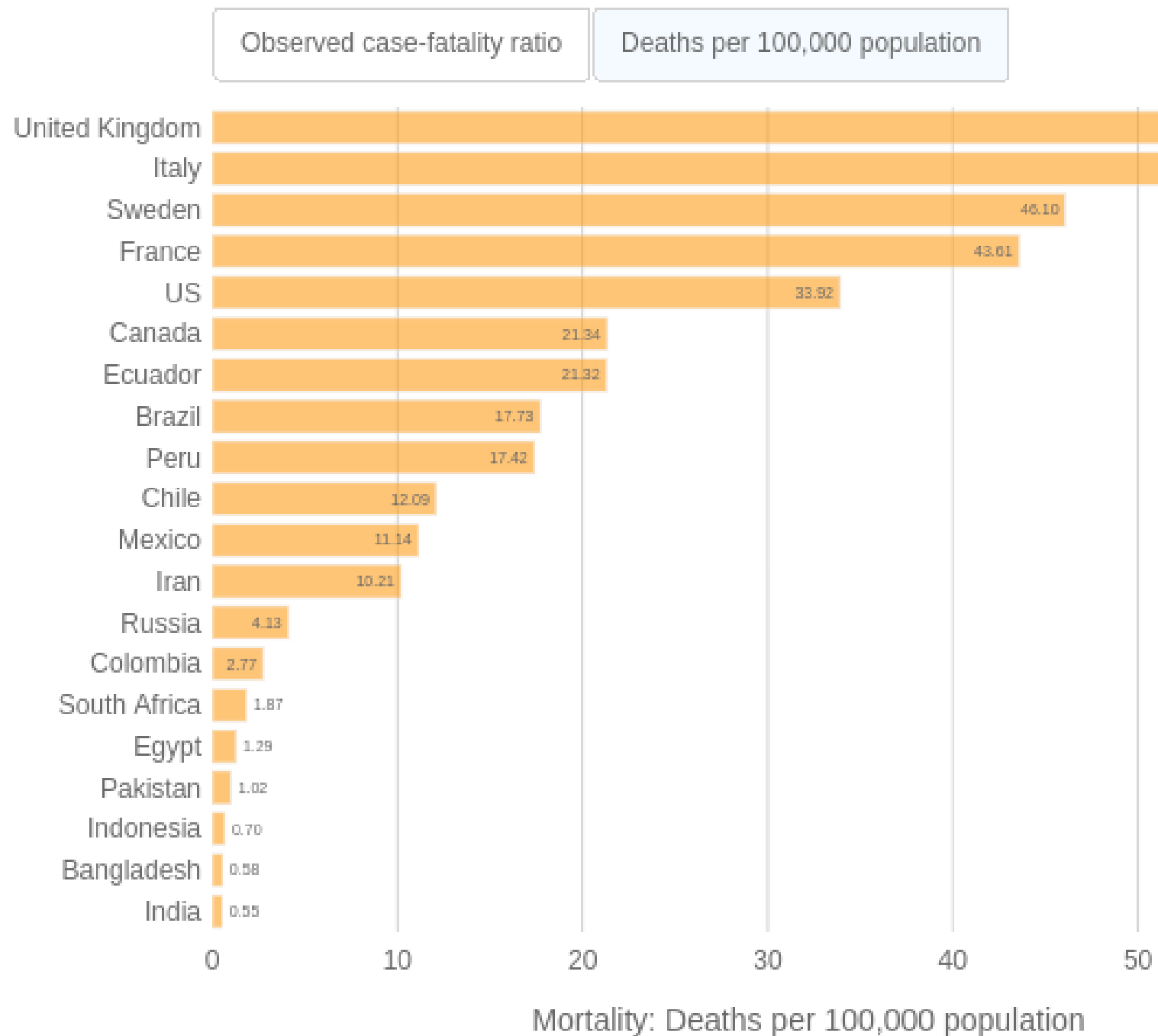
Global reduction of about  
5.2% of GDP in 2020  
2.5% in developing economies



## Social

Not Population Size or GDP  
Science-based Government  
action, Public awareness &  
action

- ▶ **Turkey 5.7**
- ▶ Sao Tome & Principe 5.7
- ▶ Dominican Republic 5.1
- ▶ Puerto Rico 4.2
- ▶ **Russia 4.1**
- ▶ Barbados 2.4
- ▶ Cuba 0.7
- ▶ Singapore 0.4
- ▶ Jamaica 0.3
- ▶ **China 0.3**
- ▶ Senegal 0.3



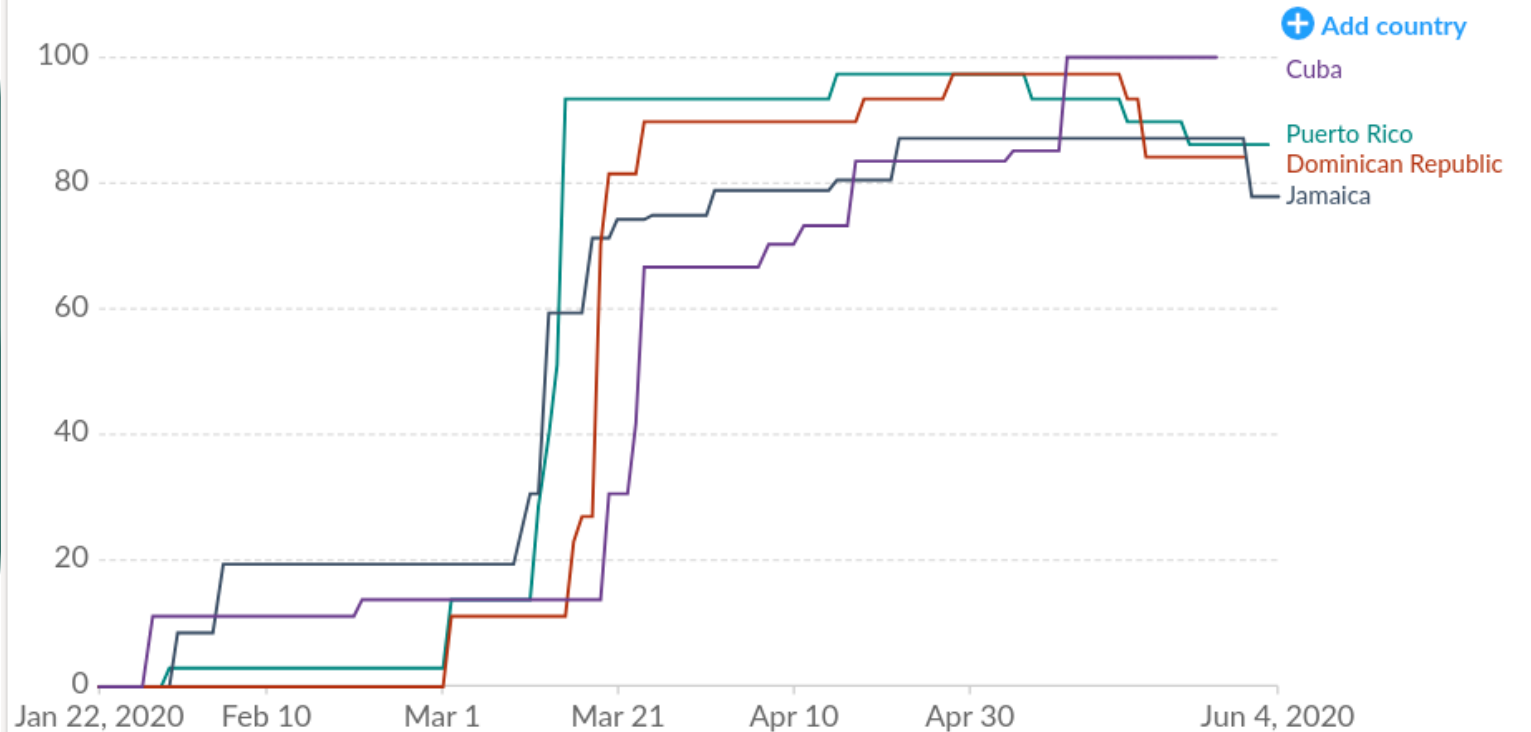
# How did Caribbean SIDS manage COVID?

- ▶ They took similar measures
- ▶ Some at around the same time
- ▶ Puerto Rico DID NOT close its airports

## COVID-19: Government Response Stringency Index, Jan 22, 2020 to Jun 4, 2020

Our World  
in Data

The Government Response Stringency Index is a composite measure based on nine response indicators including school closures, workplace closures, and travel bans, rescaled to a value from 0 to 100 (100 = strictest response).



Source: Hale, Webster, Petherick, Phillips, and Kira (2020). Oxford COVID-19 Government Response Tracker – Last Updated 5th June.  
Note: This index simply records the number and strictness of government policies, and should not be interpreted as 'scoring' the appropriateness or effectiveness of a country's response.  
OurWorldInData.org/coronavirus • CC BY

▶ Jan 21, 2020 ▶Jun 4, 2020

CHART

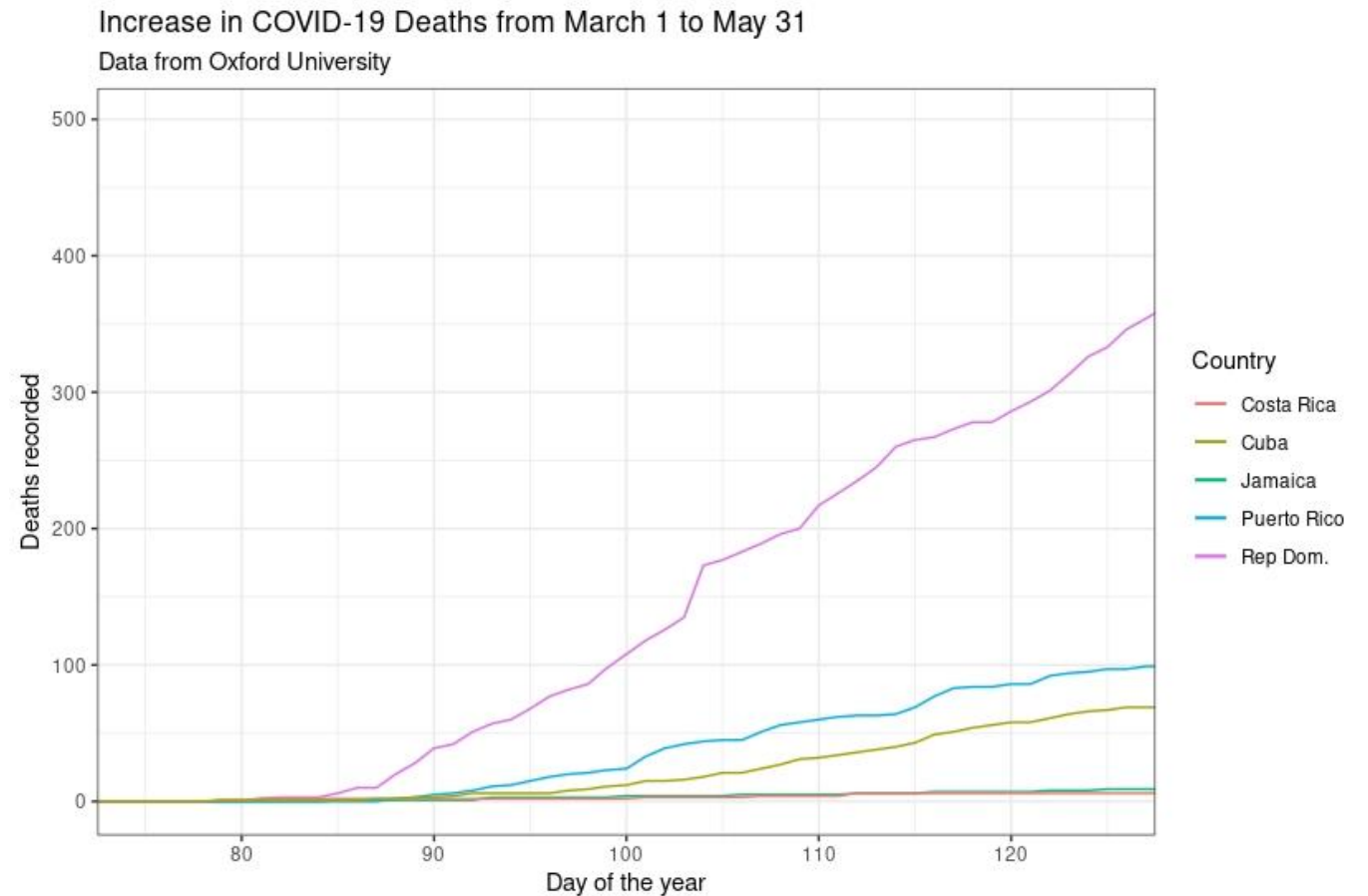
MAP

DATA

SOURCES

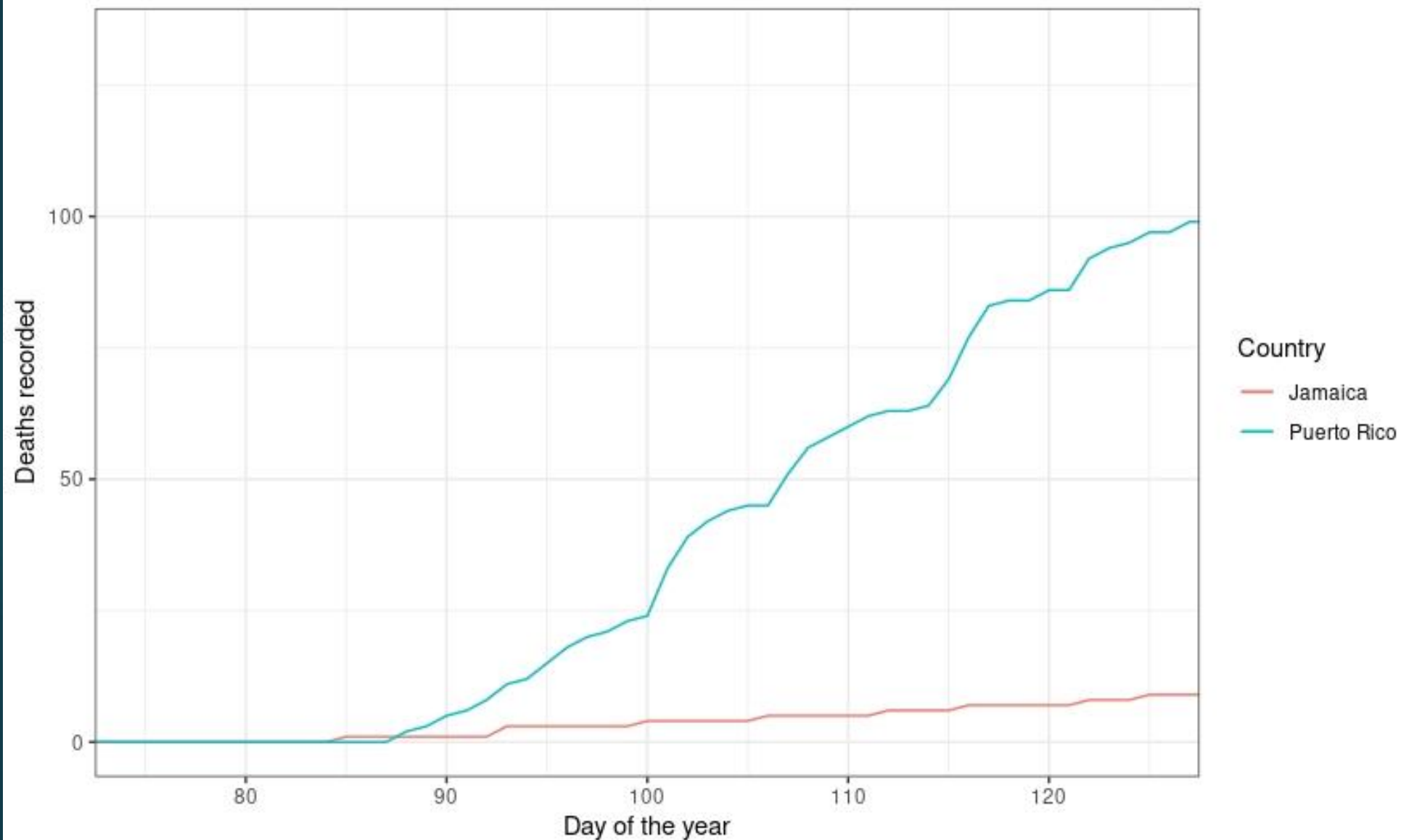


- ▶ Deaths are not related to population size
- ▶ Not necessarily related to GDP per capita between nations (though may be related to income within)
- ▶ Government intervention and people's actions are more important



## Increase in COVID-19 Deaths from March 1 to May 31

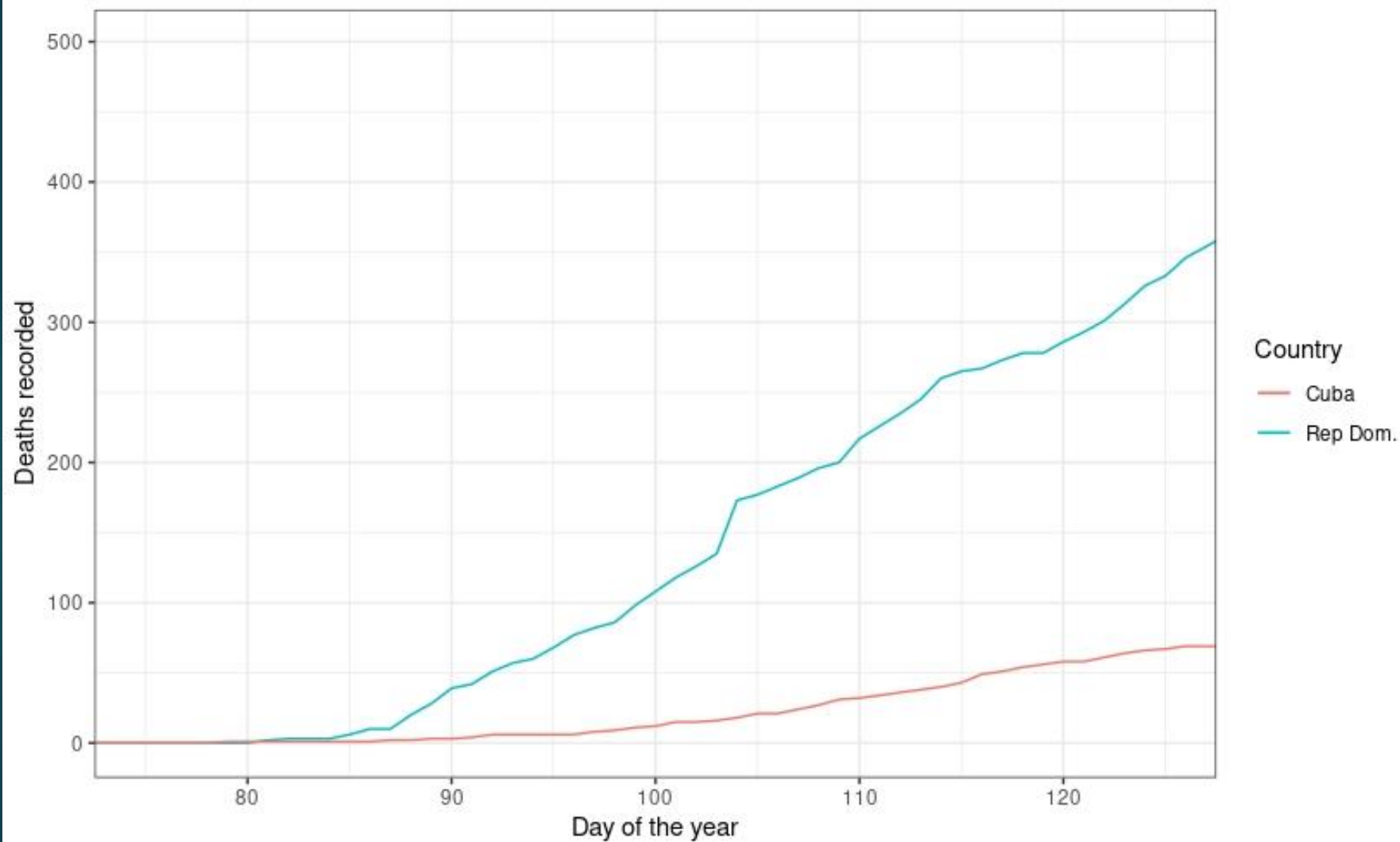
Data from Oxford University & Johns Hopkins



Jamaica and Puerto Rico have similar sized populations.

## Increase in COVID-19 Deaths from March 1 to May 31

Data from Oxford University & Johns Hopkins



Cuba and the Dominican Republic have similar sized populations.



# Vulnerability to travelers & tourism

- ▶ Infections came from OECD urban centers with tourists or people visiting relatives
- ▶ E.g. Italy, Canada, London & New York,
- ▶ There was community transmission in all those places *prior* to the infection in the Caribbean. But this was not known at the time.



# What worked, & what didn't

## The better performers (Cuba and Jamaica)

- Started public information campaigns a month before the poorer performers

## Spikes in cases

- Parties & Boat cruises (as well as cruise shipping)
- People who refused to be quarantined
- Poor business practices (e.g call centre in Jamaica)

## Responses

- Quarantines of villages
- Curfews & restrictions on gathering, commerce etc.
- **Closed Borders and airports**



# What next?

- ▶ Tourism-based economies (most SIDS) will soon re-open to tourism & new infections:
  - ▶ Tourists are from countries with much higher infection rates e.g. USA, UK, Italy.
  - ▶ The sector will need to operate in new ways to protect their employees, clientele and brand
  - ▶ Avoid or ban cruise shipping until ways to make it safe can be found?



# What next?



Set up appropriate border protocols



Improve data collection  
& monitoring

Test visitors

Test workers in the tourism sector

Test people living in areas where  
tourism takes place

monitor new infections.



Implement restrictions as needed



Be prepared to re-close borders as necessary  
& with short notice

# Wicked problems

	High agreement on values among stakeholders	Low agreement on values among stakeholders
High level of Scientific knowledge	Simple Problems	Complicated problems: build stakeholder agreements on values
<b>Gaps in knowledge, research lacking, disagreements</b>	Complex systems: experts work to improve knowledge	<b>Wicked Problems: multi &amp; trans disciplinary – problem taming</b>

# COVID a wicked problem? In some places.....

## The virus is new so there are gaps in knowledge

- we don't know if a vaccine will provide lasting immunity,
- we don't know how much immunity is caused by previous infections

## Stakeholders vary widely on values:

- Are jobs/the economy more important than the premature death of some older people or people from minority groups?
- Some leaders feel the pandemic's importance is exaggerated
- People who are currently out of work need a source of income
- Who should provide social safety nets?

# Risk reduction

- ▶ Taming wicked problems requires multi and transdisciplinary approaches and non-traditional approaches to problem solving.
- ▶ Not Science vs. economics, but economics based on natural science and an understanding of the natural systems that allow for human wellbeing,
  - ▶ Its vital to implement policy and practice based on good science
  - ▶ Investigate the linkages maximize benefits minimize tradeoffs, science-led policy actions.
- ▶ Does going back to normal make sense? Not if there was something wrong with normal.

# Risk Reduction



## **Improve the accessibility to internet for**

Education  
Skills training  
Provision of government services  
Public education about hazards and disaster risk reduction



## **This would include increased phone & internet coverage**

Schools, Public libraries and government supported outlets  
Internet shops and cafes  
Improved phone services, cash etc.



## **Home access through low cost computers and FOSS**



# Lessons learned

- ▶ COVID has exposed pre-existing weaknesses and inequalities in our social and economic systems.
- ▶ We should address those and not seek to restart them as we go back to business
- ▶ Resist the urge to go back to business as usual. (Build the economy back better)
- ▶ Lead with science-based policies
- ▶ Address the needs of the vulnerable
- ▶ Educate, and find ways to diversify economies
- ▶ Prepare for the next cyclone or drought with COVID-19