United Nations
Economic Commission for Africa

COVID-19: Lockdown Exit Strategies for Africa

Economic Commission for Africa

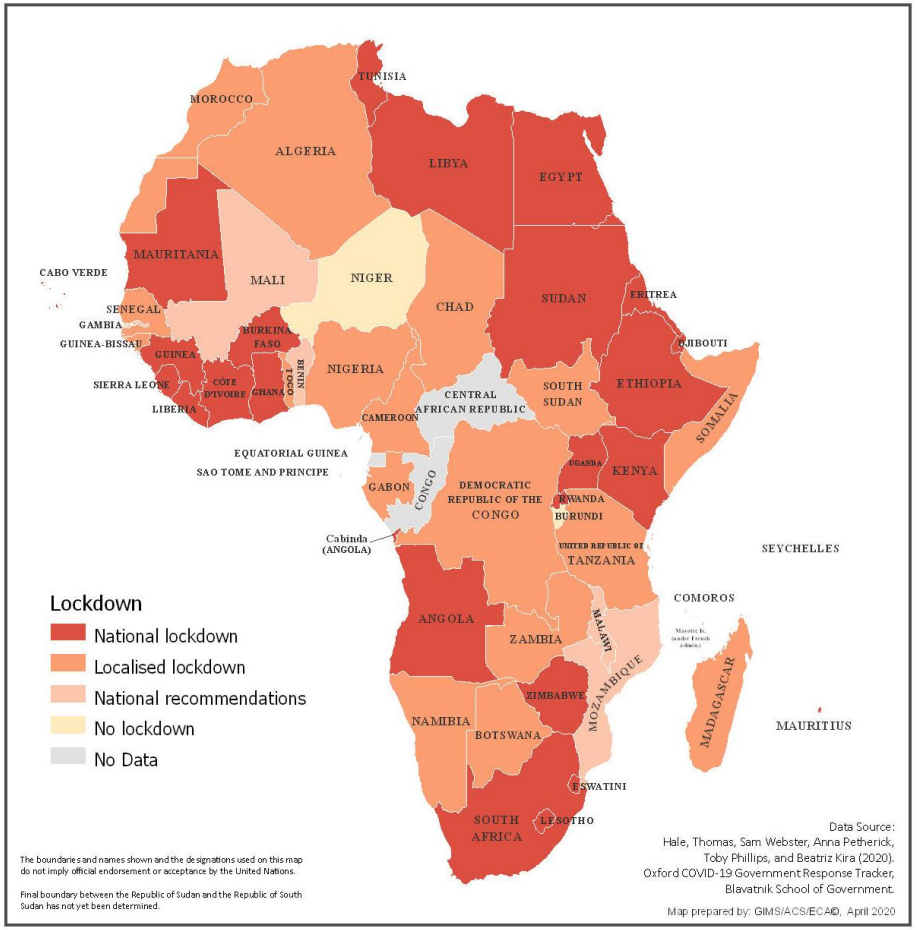
ideas for a prosperous Africa

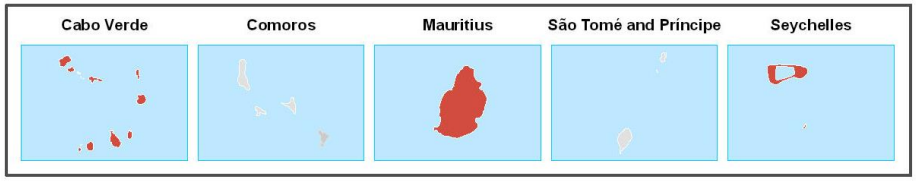
4 May, 2020
Addis Ababa, Ethiopia

What is the economic cost of lockdowns?

- **ECA estimate**: one-month full lockdown across Africa would cost the continent about 2.5% of its annual GDP ($65 billion)
- *In addition* to wider external shock of lower commodity prices and investment flows
- Assumes continuation of essential services and fairly normal government expenditure, but sharp drop to private consumption, investment and labour supply
- **OECD estimate**: 2% decline in GDP per month in OECD countries
- **UK OBR estimate:** 2.9% decline in UK GDP per month of lockdown
- **France INSEE estimate**: 3% decline in French GDP per month

Lockdowns across Africa, 29 April



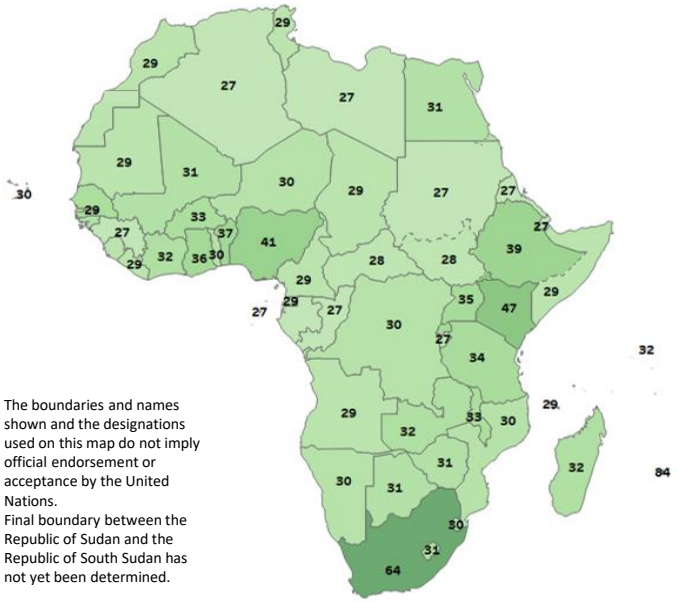


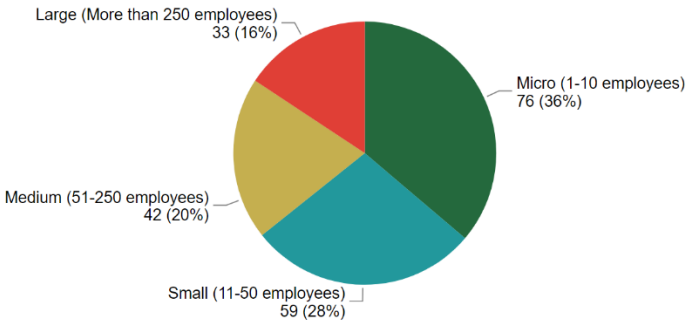
Firm-level data shows businesses are struggling

Top challenges (from highest to lowest) reported by companies in Africa

1. Drop in demand for products/services
2. Lack of operational cash flow
3. Reduction of opportunities to meet new customers
4. Business is closed
5. Issues with changing business strategies and offering alternative products/services
6. Decline in workers' production/productivity from working at home
7. Many workers cannot return to work
8. Challenges in logistics and shipping of products
9. Difficulties in obtaining supplies of raw materials essential for production

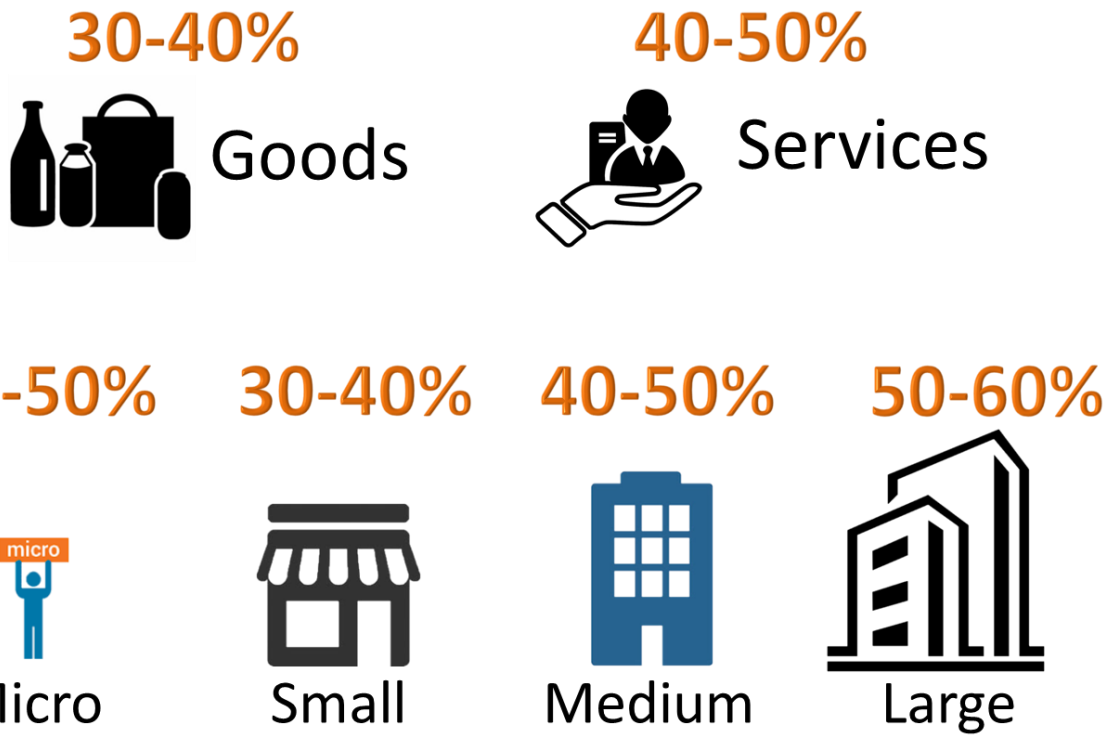
Survey coverage





Source: ECA & IEC. 2020. Insights on African businesses' reaction and outlook to COVID-19's. IEC: Mauritius & ECA: Addis Ababa. 30 April
Notes: Each respondent represents a company that operates in at least one and up to 54 African countries, data was collected on 210 firms from 14 to 20 April

African firms report operating at very low capacity utilization rates



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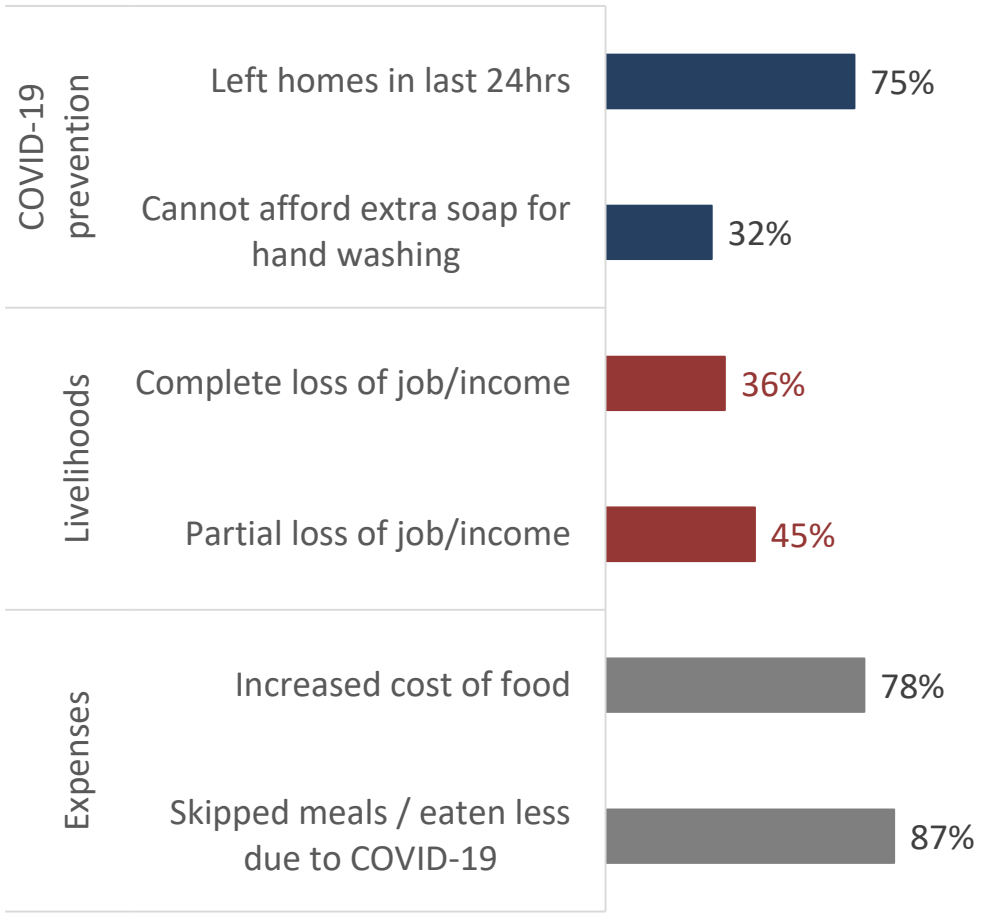
Notes: Each respondent represents a company that operates in at least one and up to 54 African countries, data was collected on 210 firms from 14 to 20 April

- On average, businesses in Africa report to be operating at only 43 percent between 14 and 20 April, though with larger firms reporting to operate at a slightly better capacity
- The manufacturing, health/entertainment/utilities and transport/trade sub-sectors report to be operating at the lowest capacities

Lockdowns are especially difficult for slum dwellers

- 56% of Africa's urban population (excl. North Africa) live in slums
- Emerging survey data from about 2,000 residents living under lockdown in 5 slums in Nairobi indicate that:
  - Over 75% have left their homes an average of 3 times in 24hrs, despite lockdown
  - Though 95% have access to public handwashing stations, 32% could not afford extra soap for hand washing
  - 81% have suffered complete *or* partial loss of job/income
  - 70% report skipping meals / eating less due to COVID-19

Lockdown survey data for 5 Nairobi slums, 22 April



Source: Nairobi informal settlements: COVID-19 knowledge, attitudes, practices and needs—Round 2," COVID-19 Research & Evaluations presentation. Nairobi: Population Council, 2020

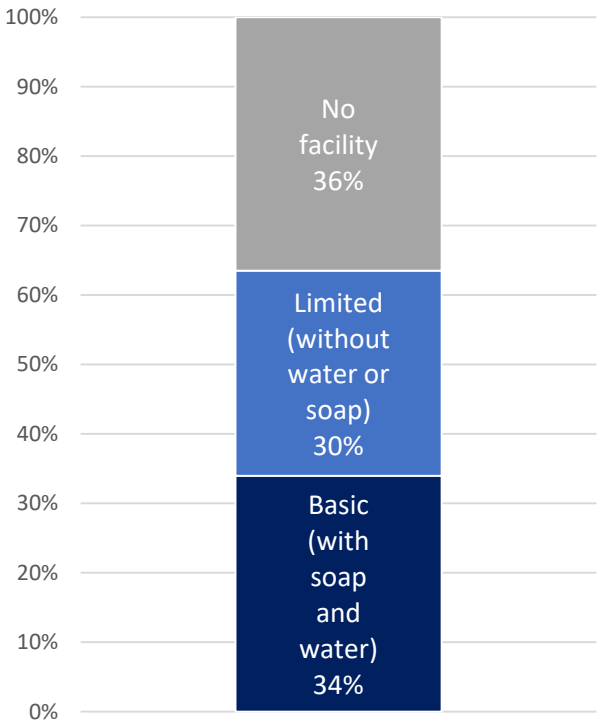
Lockdowns pose challenges for food security

Food access	▪ Reduced work for daily wage laborers limits their ability to buy food (70% of Nairobi slum residents skipping food) ▪ 56 million African children are missing school meals due to school closures (WFP)
Distribution	▪ Restrictions on movement, reduced working hours and night curfews are affecting logistics ▪ Kobo360 logistics firm in Nigeria, Kenya, Togo, Ghana and Uganda reports 30% of its fleet not operating as result
Production	▪ Food insecurity in mid/late 2020 if access to seeds and agricultural inputs becomes constrained now ▪ Lockdowns hinder farm inspections by banks, for credit
Exacerbating challenges	▪ Lockdowns slowing efforts to tackle East Africa locusts ▪ Food imports at risk by rice export restrictions (Viet Nam, Myanmar) wheat export quota (Russia)

Sources: World Economic Forum. 2020. COVID-19 is exacerbating food shortages in Africa; Famine Early Warning System Network. 2020. East Africa Food Security Outlook.

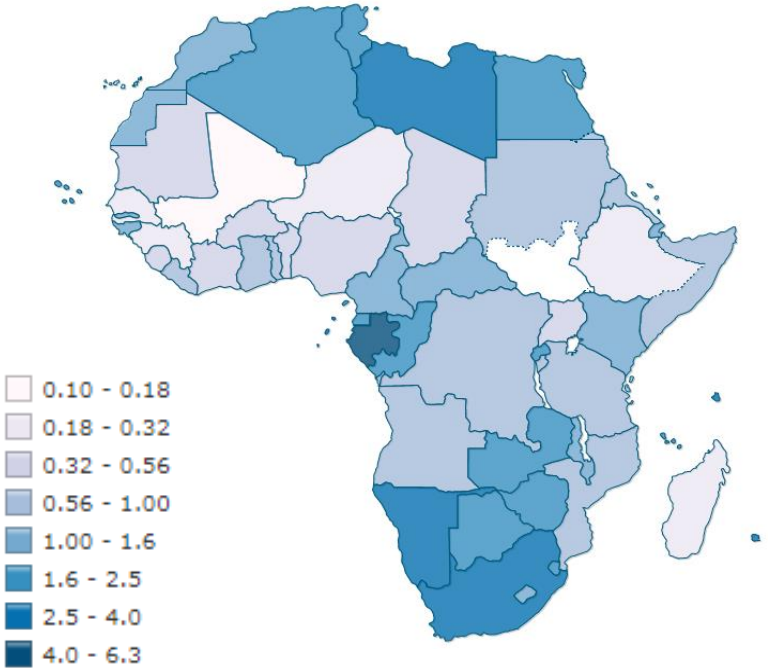
Yet without lockdowns, Africa is vulnerable to the virus spread

African access to household handwashing facilities is low



Source: Based on WASH data from WHO/UNICEF, 2017

With 1.8 average hospital beds per 1,000 people, hospital beds capacity across Africa is weak

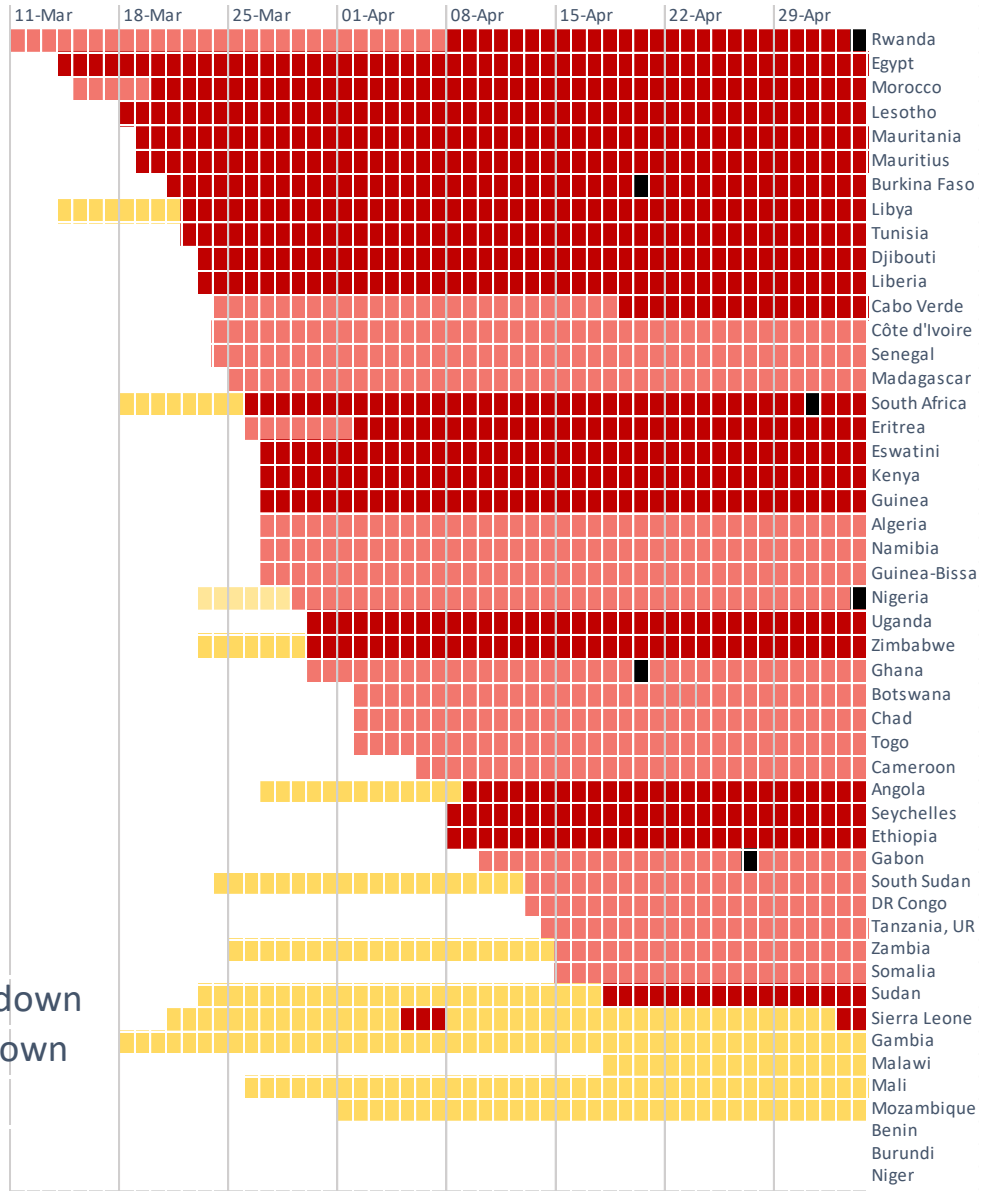


Source: Index Mundi, 2020 (www.indexmundi.com)

- Only 34% of Africans have access to household handwashing facilities with soap and water
- Africa has on average 1.8 hospital beds per 1,000 people compared to 5.98 in France

How many lockdowns are in place in Africa?

- Localised or national lockdowns were in place in at least 42 African countries as of 30 April
- 38 of these lockdowns have already been in place for at least 21 days
- Figure shows those in place for longest (while identifying those which are targeted or national)



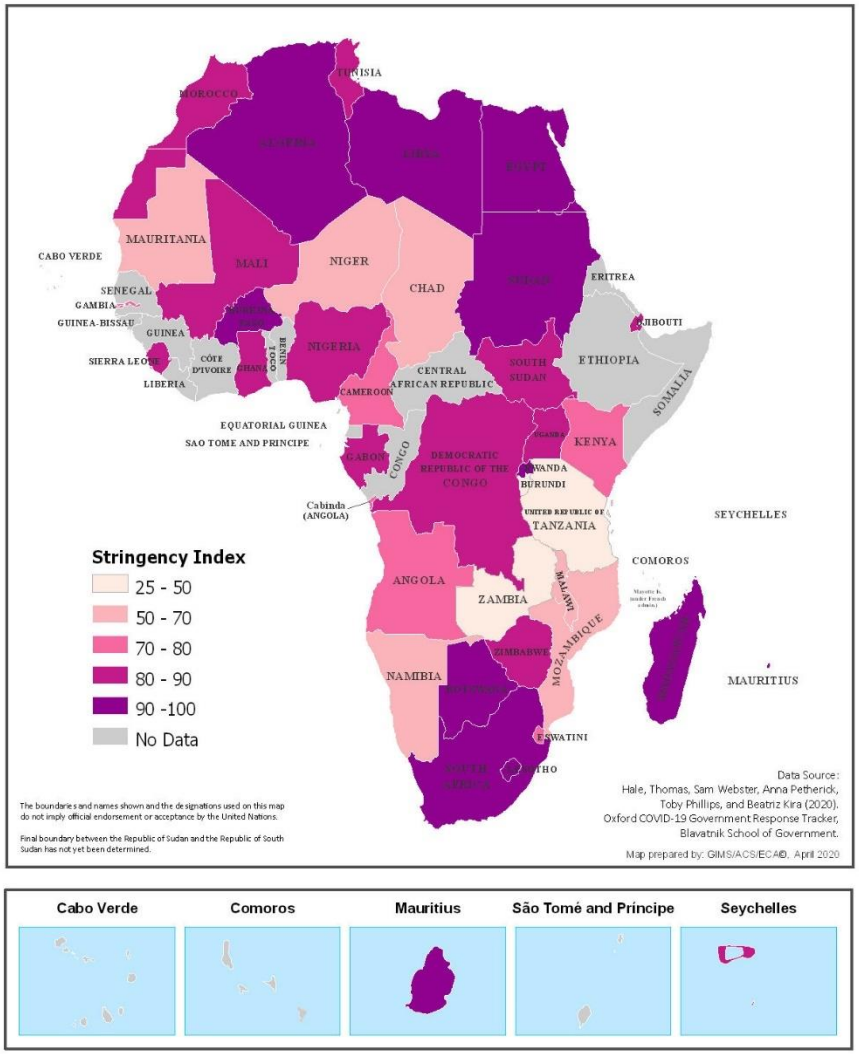
Localised recommendations
National recommendations
Lockdown easing begins
Localised lockdown
National lockdown

Source: Based on data collected by ECA Sub-Regional Officials and from Hale, Thomas, Sam Webster, Anna Petherick, Toby Phillips, and Beatriz Kira (2020). Oxford COVID-19 Government Response Tracker, Blavatnik School of Government

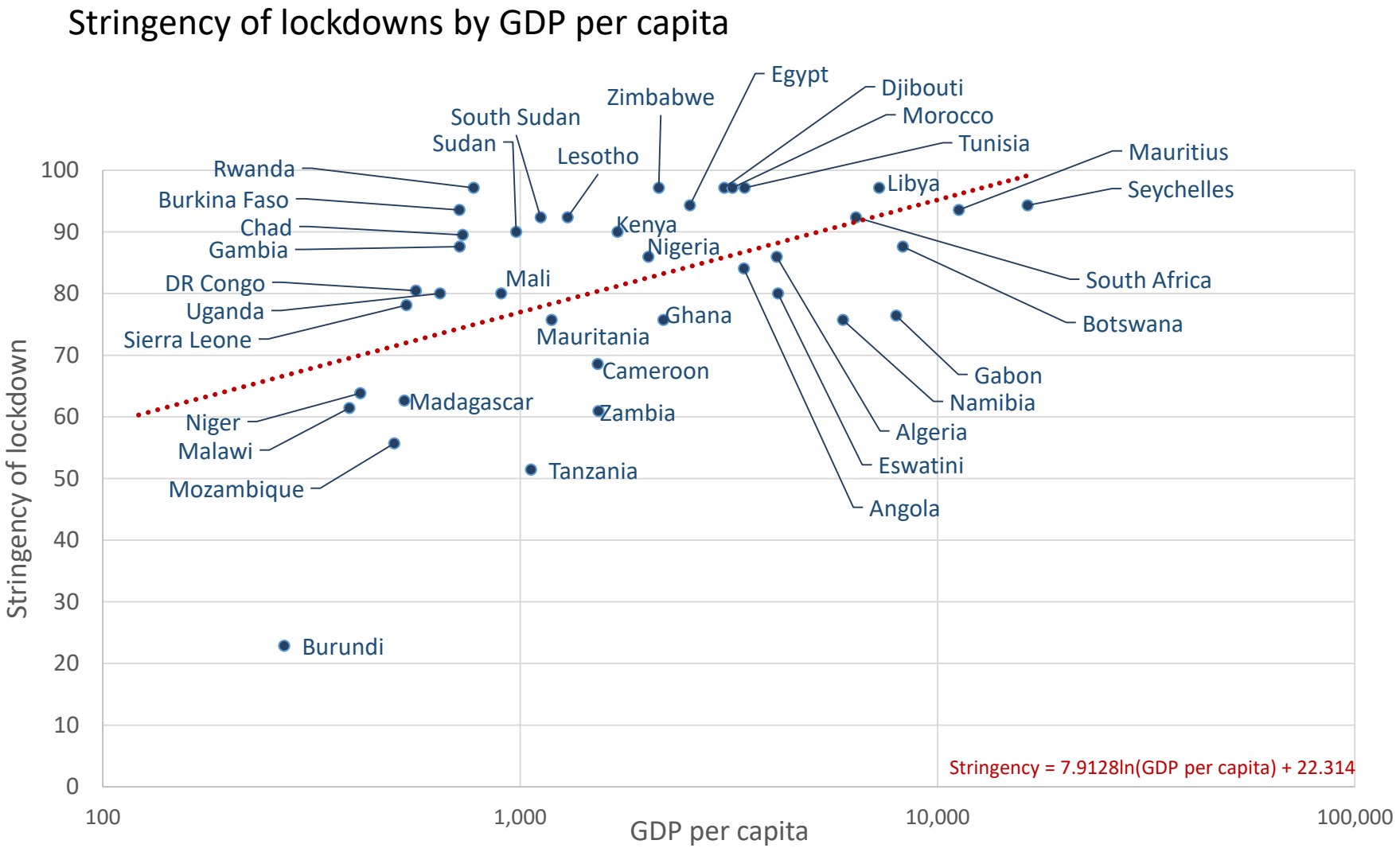
Each lockdown is different

- Stringency of lockdown measures varies by country
- Oxford COVID-19 Government Response Tracker **Stringency Index**: based on information on 7 indicators of government COVID-19 responses:
  - school closures
  - workplace closure
  - cancellation of public events
  - public transport closures
  - public information campaign
  - restrictions on domestic/internal movement
  - restrictions on international travel

Stringency of lockdowns, 29 April



Wealthier African countries tend to impose more stringent lockdowns



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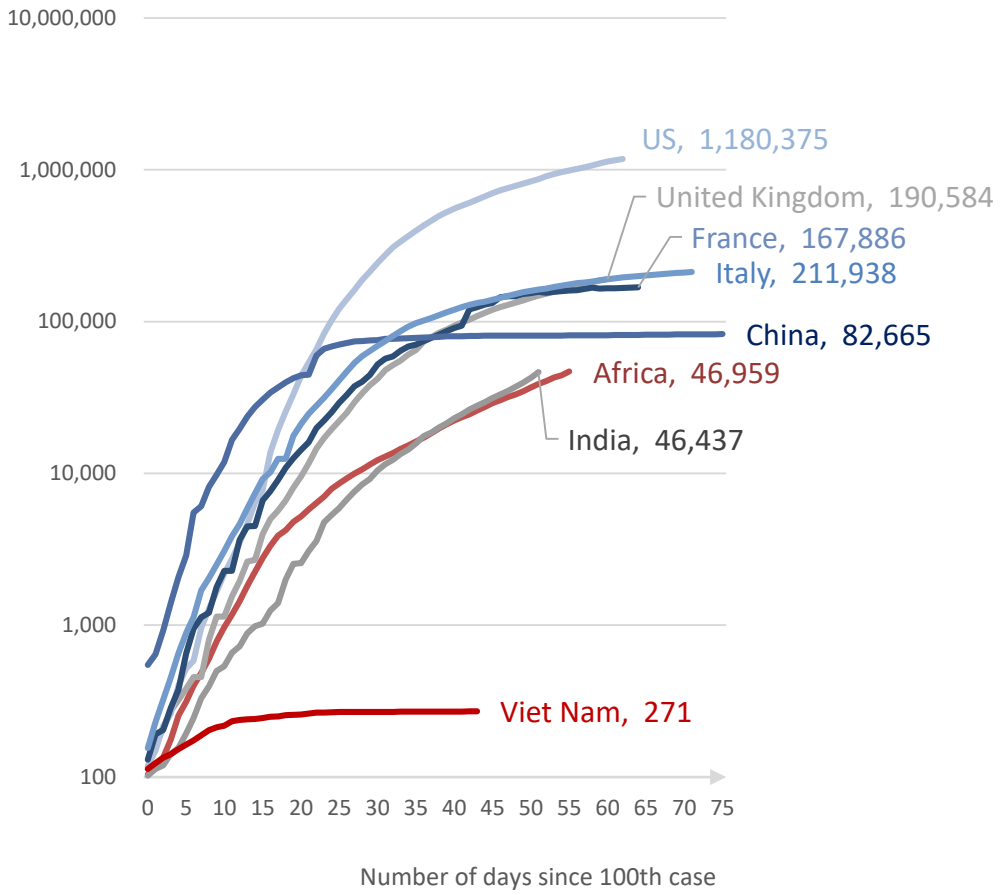
Case Study Viet Nam: containing COVID-19 with limited resources

- Has 95m population and similar income to Zimbabwe / Ghana
- **Precision lockdowns**: focused and targeted on towns, villages, streets or hotels where cases were identified (also nationwide when necessary)
- **Extensive public education campaign**: TV cartons, social media, posters. Police fines for misinformation.
- **Swift and decisive action**: National Steering Committee for COVID-19 in place by end of January. Since then, Viet Nam has procured 450,000 hazmat suits, 300 bed hospital and enough surgical masks and ventilators for exports.

Infection trajectories: Viet Nam's impressive 271 cases and zero deaths, as of 5 April



Source: Based on data from Johns Hopkins University and Africa CDC, 5th April 2020

Seven lockdown exit options being trialed / proposed around the world

1 Improve testing	
Rapidly scale-up testing to give greater clarity to the geographic extent and growth of COVID-19.	Zero regret (Iceland is leading example)
2 Lockdown until preventative or curative medicines are developed	
Retain reasonably heavy suppression measures until preventative or curative medicines are developed and distributed. Vaccines could take 12 to 18 months.	Low regret
3 Contact tracing and mass testing	
Identify those who have the disease and everyone they have come into contact with, then isolate, test and monitor those people. Effectiveness could be supplemented with advanced surveillance technology, such as TraceTogether (Singapore). Through this, Taiwan has avoided needing to lockdown.	Low regret (Viet Nam, China, Taiwan, South Korea, Iceland, Australia, New Zealand, Singapore)
4 Immunity permits	
Antibody tests to identify and grant permits to those with immunity to return to work.	Low regret (Chile)
5 Gradual segmented reopening	
Gradually open up certain geographic regions or business sectors, or restrict lockdowns to certain hours (curfews) or high-risk demographics (shielding).	Medium regret
6 Adaptive triggering	
Ease lockdown once infections decline, re-impose when they begin to rise above ICU capacity, repeat. Can be combined with gradual segmented reopening.	High regret (Imperial College London Response Team suggestion)
7 Mitigation	
Gradually allow the infection to spread across the population.	Very high regret (Sweden, abandoned in UK)

Case Study: Gradual segmented reopening strategy of Rwanda

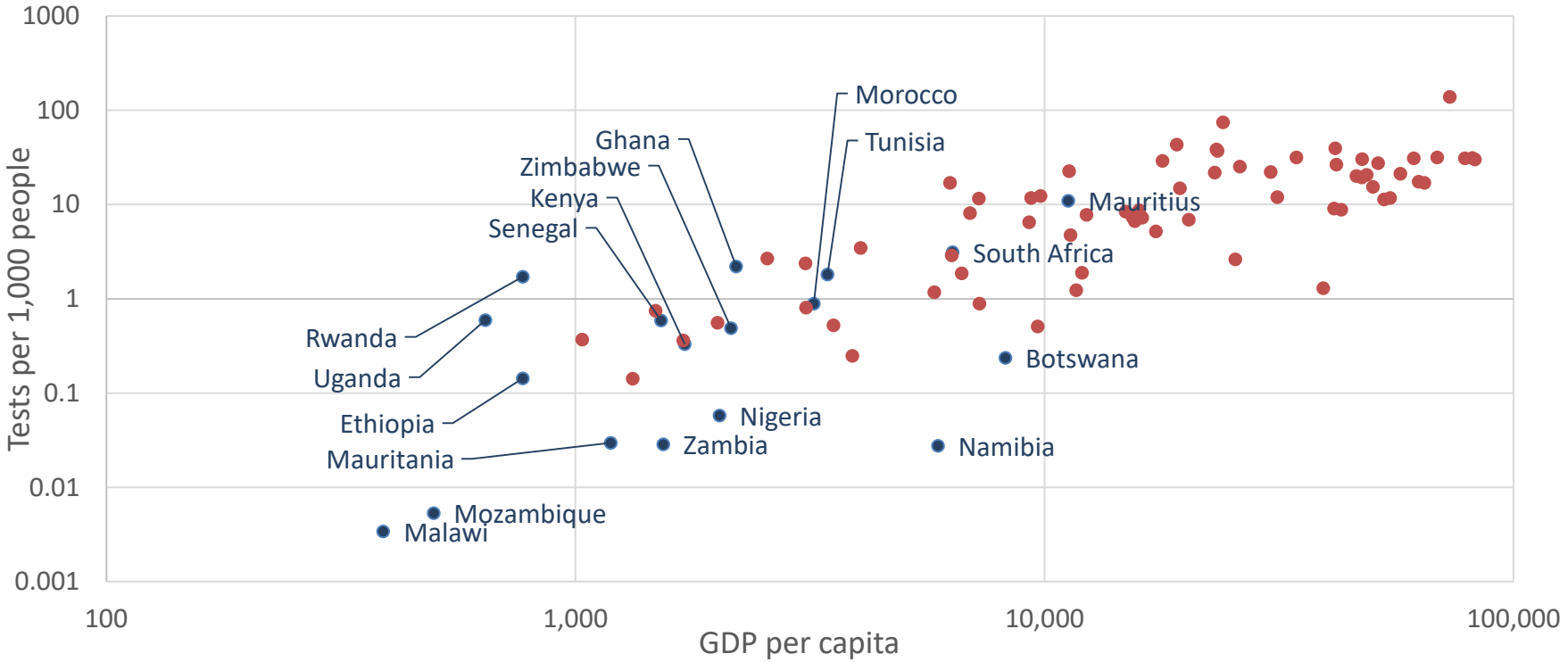
- Gradual and segmented easing of lockdown announced for 4 May after 1,000 tests conducted daily on average for >10 days and total cases remaining under 300
- **Timing**: movements are still to be prohibited from 8pm to 5am. Hotels and restaurants are to close by 7pm
- **Workers**: essential workers to resume work, others to continue working from home
- **Economic activity**: schools, places of worship, sports facilities, bars are to remain closed and markets to operate at les than 50% capacity
- **Geography**: transport between provinces and Kigali is to remain prohibited

Rwanda: Less than 1% of over 1,000 daily tests shown positive for COVID-19 on average over last 10 days

Source: Based on data collated by Our World in Data, 4 April 2020; 5 day rolling average

Testing is crucial, but afforded by wealthier countries

Tests per 1,000 people by GDP per capita

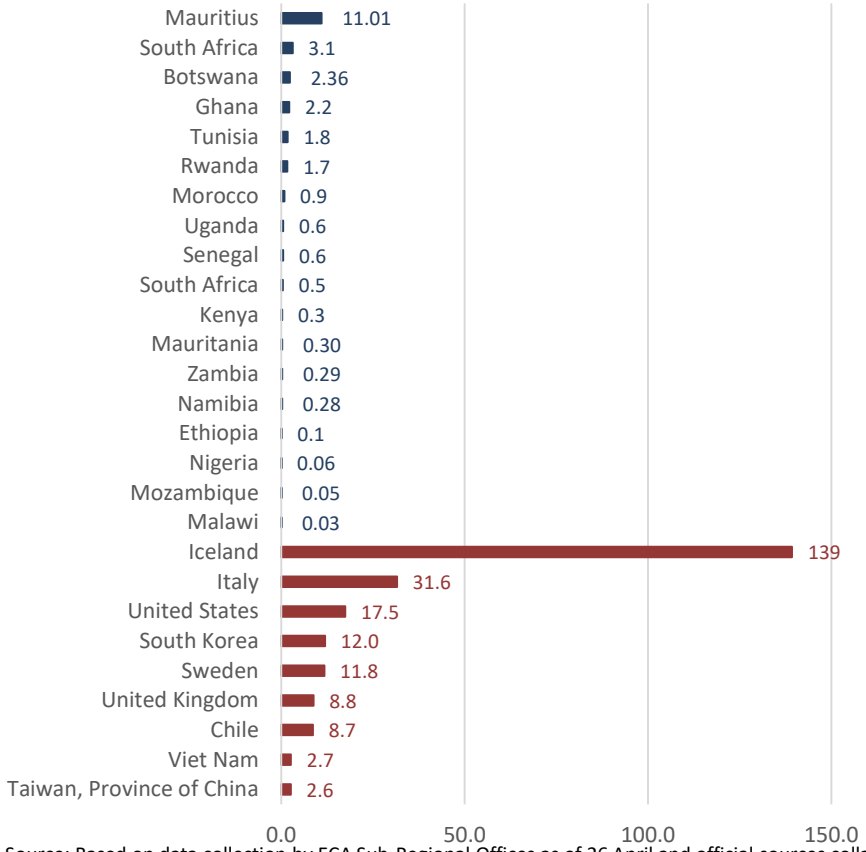


Sources: Based on a) World Development Indicators. 2018; b) testing data collected by ECA Sub-Regional Offices, as of 26 April; and c) public testing data collated by Our World in Data, 30 April 2020,

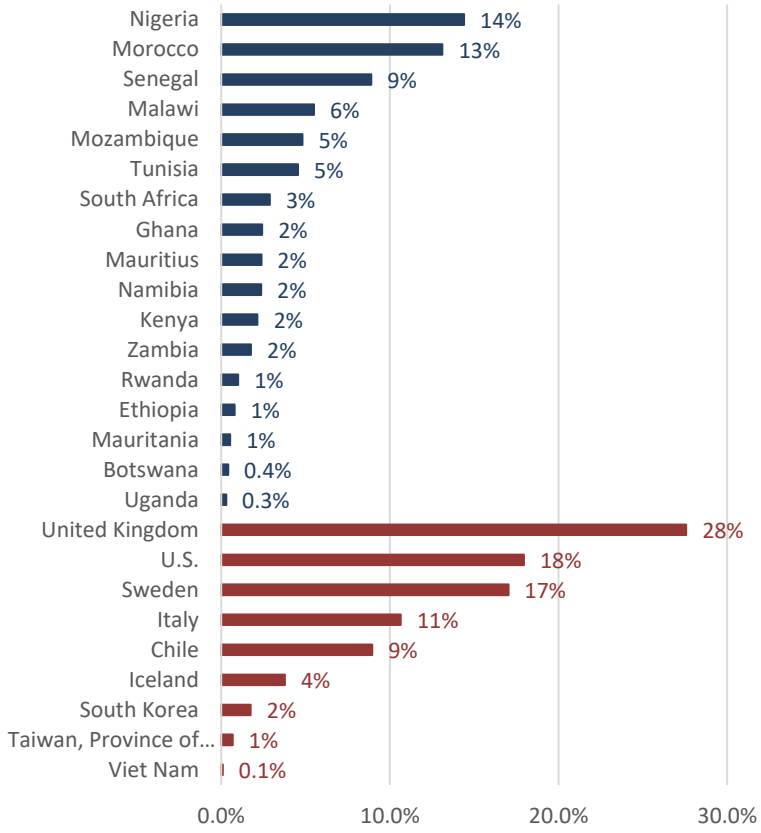
- No decision maker knows the true spread of COVID-19, so exit strategies bear risks
- Tests helps see better what those risks are and minimize lives lost
- Unfortunately, countries' ability to test is strongly related to income level

Tests per 1,000 people is low in Africa

Tests per 1,000 people by 30 April



Share of tests showing positive for COVID-19



Source: Based on data collection by ECA Sub-Regional Offices as of 26 April and official sources collated by Our World in Data, 30 April 2020, available: https://ourworldindata.org/covid-testing

- However, as cases of Viet Nam and Taiwan show, even if the share of tests per 1,000 people is low a country may still have the virus relatively under control if the share of tests showing positive for COVID-19 is also low

Case Study: Ramping up testing capacities in Africa

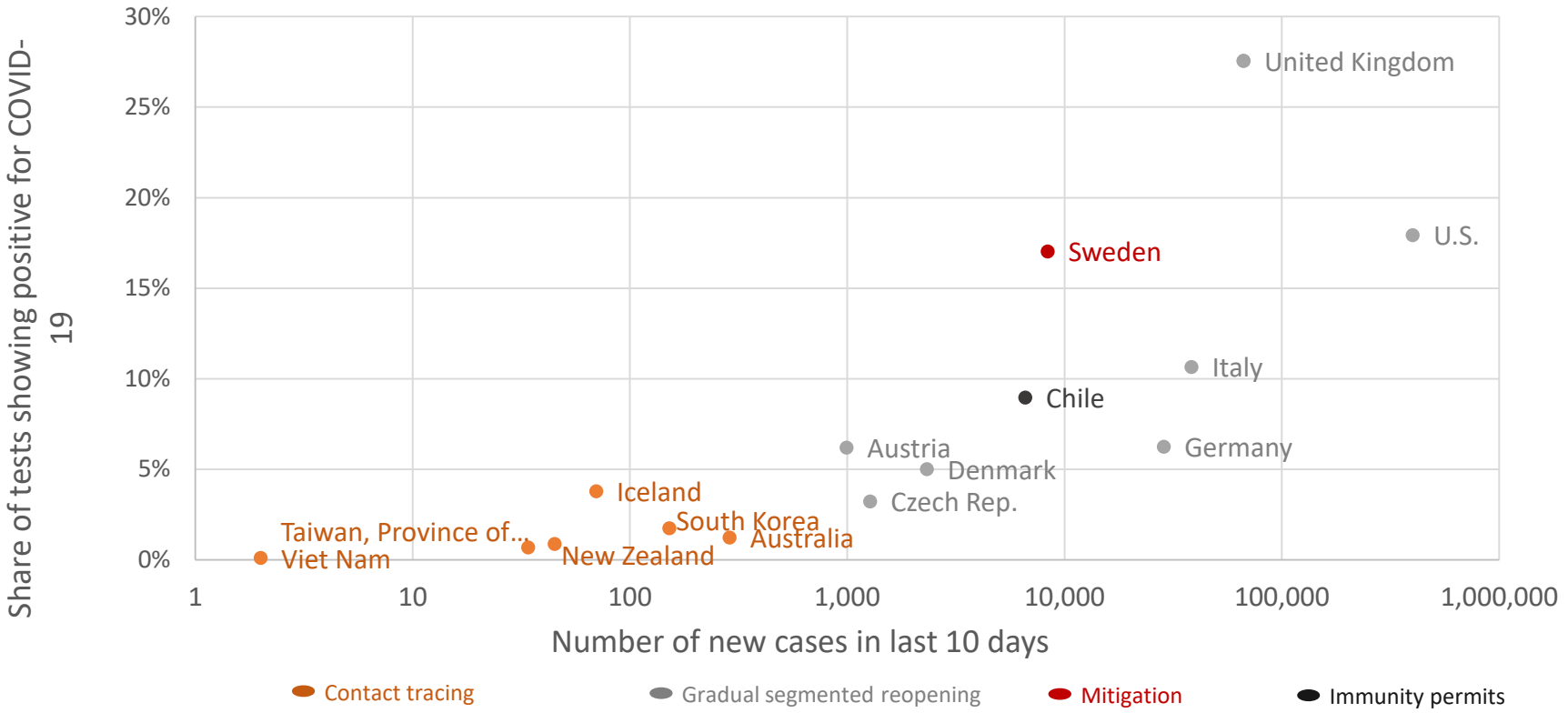
As countries around the world struggle to increase their own testing, reliance on imports presents issues and local production becomes important.

- **Ghana**: A diagnostics company and the Kwame Nkrumah University of Science and Technology have partnered to develop a simple to use COVID-19 test kit that gives results in 15 to 20 minutes. The kit is now awaiting approval from the Ghana Food and Drugs Authority.
- **Senegal**: Manufacturers are prototyping a COVID-19 testing kit that will reportedly cost less than $1, in a collaborative programme involving British and French researchers.
- **Uganda**: Researchers at Makerere University have developed a swab tube dipstick COVID-19 test that can reportedly give results within minutes at the cost of just of $1.
- **Kenya**: The Kenya Medical Research Institute has started manufacturing a simple swab-based COVID-19 rapid test kit.
- **South Africa**: Tech entrepreneurs of Cape Bio have reportedly created at test kit that can provide results in 65 minutes.

Countries, such as Ghana, have taken innovative approaches such as “pooled” testing

Lockdown exit strategies depend on how exposed a country is to virus

Share of tests showing positive for COVID-19 against number of new cases in last 10 days

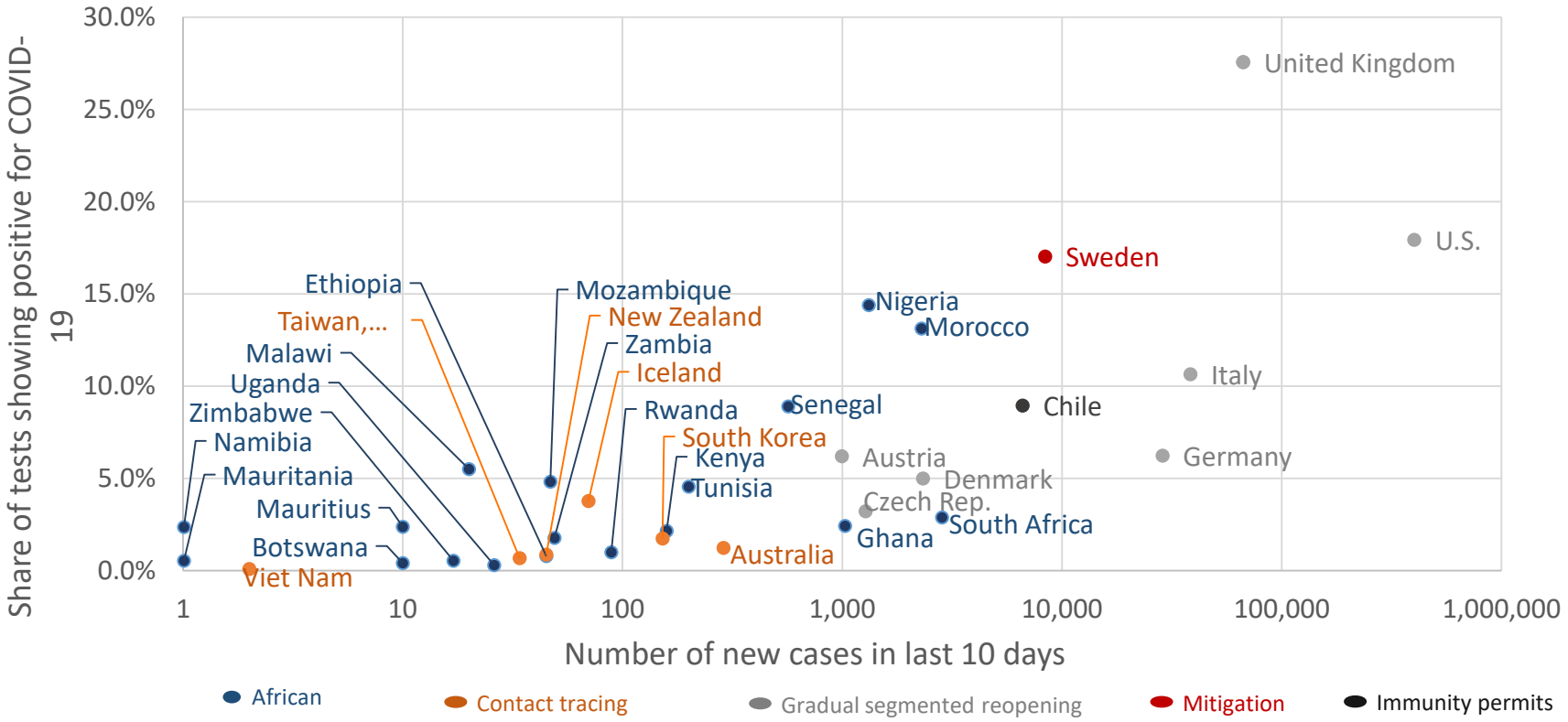


Source: Based on data collection by ECA Sub-Regional Offices as of 26 April and official sources collated by Our World in Data, 30 April 2020, available: https://ourworldindata.org/covid-testing

- Once containment of the virus has failed, governments around the world have been more likely to abandon the "contact tracing" exit strategy and resort to the "gradual segmented reopening" or other strategies (*though each is not mutually exclusive*)

What does this say about lockdown exit strategy options for Africa?

Share of tests showing positive for COVID-19 against number of new cases in last 10 days

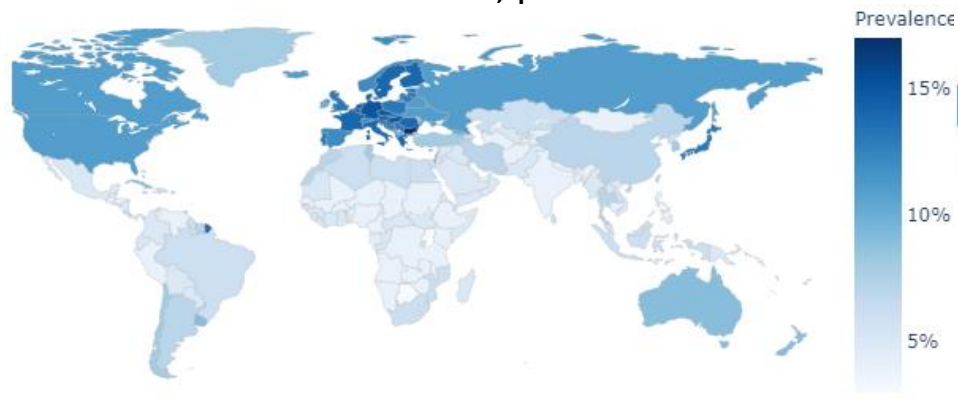


Source: Based on data collection by ECA Sub-Regional Offices as of 26 April and official sources collated by Our World in Data, 30 April 2020, available: https://ourworldindata.org/covid-testing

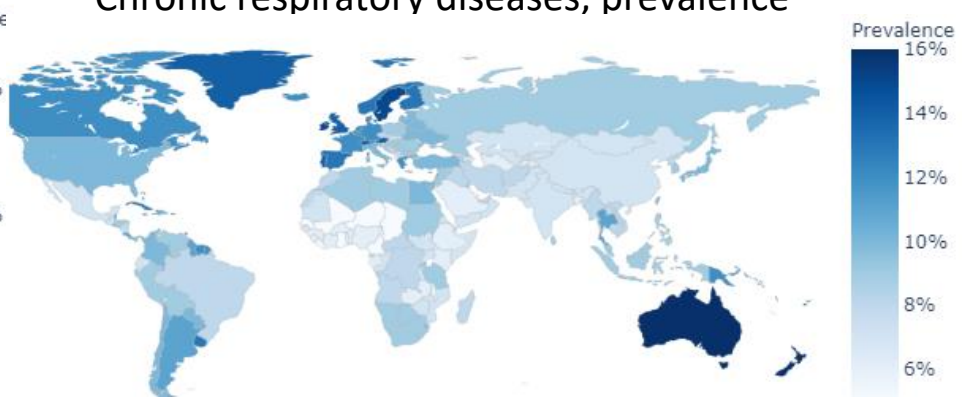
- Comparing the situation in Africa, countries like Namibia, Mauritania, Mauritius and Botswana with many tests showing few new cases could look to contact tracing exit strategy
- Countries like Nigeria and Morocco may need to look towards gradual segmented reopening strategies or possibly even further suppression measures first

Health vulnerabilities could make premature exiting of lockdowns riskier

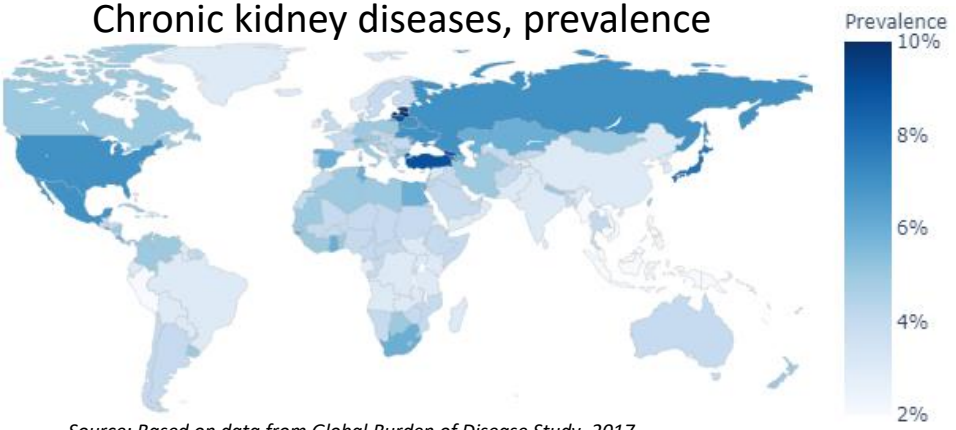
Cardiovascular diseases, prevalence



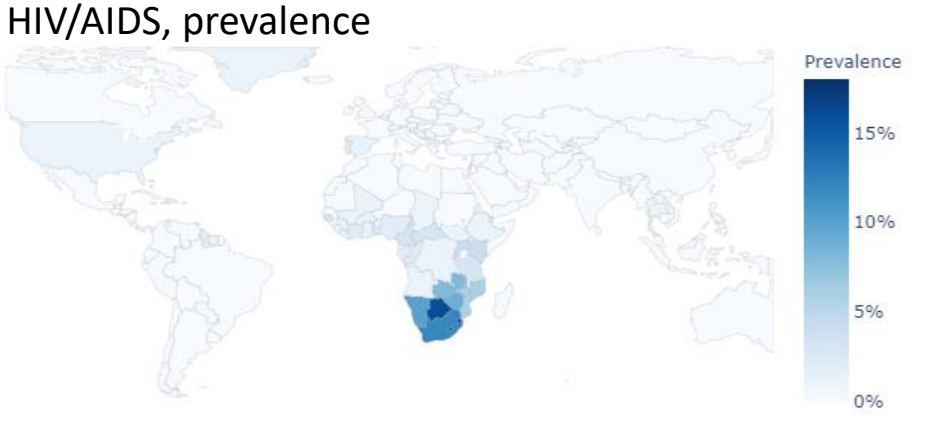
Chronic respiratory diseases, prevalence



Chronic kidney diseases, prevalence



HIV/AIDS, prevalence



Source: Based on data from Global Burden of Disease Study, 2017

Note: The boundaries and names shown and the designations used on these maps do not imply official endorsement or acceptance by the United Nations. Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined

- Africa has a favourable demographic profile (60% of the population below 25 years)
- But high prevalence HIV/AIDS in southern regions, chronic respiratory and kidney diseases in certain countries, and tuberculosis and malnutrition

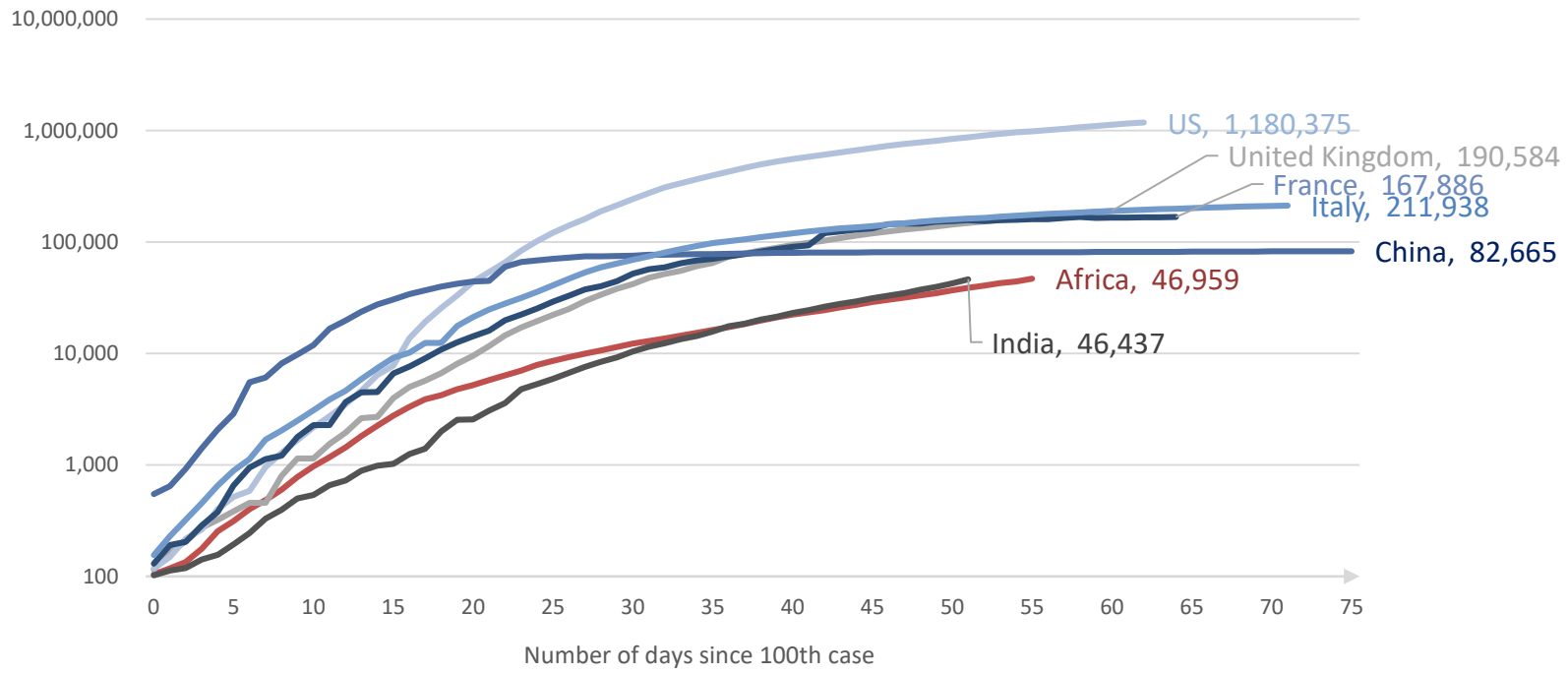
Case Study: Fatality rates for COVID-19 in Africa

- Estimated case fatality rates for COVID-19 vary widely due to large differences in testing, reporting and attribution across countries.
- As more data is collected, African countries can better ascertain the severity of population vulnerabilities, like tuberculosis or malnutrition, on COVID-19 mortality.
- Of the countries with at least 1,000 COVID-19 cases, African countries are represented among both the highest and the lowest case fatality rates.
- The North African countries of **Algeria** and **Egypt** have estimated case fatality rates of 11.5 per cent and 7.2 per cent, respectively, putting them among the top 12 countries in terms of fatality rates. These are also the two African countries with the highest prevalence of respiratory disease, a known comorbidity.
- **Morocco**, **Nigeria** and **Cameroon** have case fatality rates around 3%, while **South Africa**, **Cote d'Ivoire**, **Ghana**, **Guinea**, and **Djibouti** all have fatality rates below 2 per cent.
- What is needed is **Active Learning**: putting in the resources and time needed to actively collect the data on this critical issue. More African countries need to collect and publish detailed testing and case data.

Source: Based on data from Centre for Evidence-Based Medicine. 2020. Global Covid-19 Case Fatality Rates, 30 April 2020

Timing is everything: scheduling a lockdown exit strategy

Days since 100th case: Africa's infection trajectory vs comparators, 5 May



Source: Based on data from Johns Hopkins University and Africa CDC, 30 April

- African countries have the advantage of being behind other countries in their infection trajectories: can use this time to learn from others as they trial different exit strategies
- Africa less about 'flattening the curve' (as healthcare capacity too low) but rather creating "extra time" to put in place systems to test, suppress the virus and treat its victims, and plan well-designed and carefully communicated exit strategies into a new normal

Case Study: South Africa's three system risk-adjusted approach

Proposals being developed for South Africa to manage COVID-19 over the next 6-8 months while transitioning out of a strict lockdown period

- **System 1 Four measure alert system.** The stringency of lockdown measures would vary from minimum restrictions to full lockdown depending on:
  i. rate at which the proportion of the population tested is increasing
  ii. rate at which the proportion of positive tests is increasing
  iii. rate of increase in fixed and makeshift hospital beds
  iv. rate at which the proportion of hospital beds is being utilized for COVID-19
- **System 2 Identifies and sequences possible priority economic areas** which will require easing post the lockdown period in accordance with their:
  i. risk of transmission,
  ii. expected impact on the sector should the lockdown continue
  iii. value of the sector to the broader economy
  iv. the promotion of community wellbeing and the livelihoods of the most vulnerable.
- **System 3 Enhances public health and social-distancing arrangements** through, for instance, encouraging workers who can to work from home, allowing workers above the age of 60 and those with comorbidities to work from home or remain on leave, and workplace protocols on disease surveillance.

Key messages

Excruciating trade offs

- **Lockdowns impose agonizing costs**: up to 2.5% of Africa's GDP is at risk every month while firms surveyed by ECA report to be operating at only 43% and 70% of slum dwellers in another survey report to be skipping meals or eating less as a result of COVID-19.
- **Lockdowns address severe vulnerabilities**: including only 1.8 hospital beds per 1,000 people and spread susceptibilities such as only 34% of Africans having access to household handwashing facilities with soap and water.

No one-size-fits-all solution to lockdowns

- **Contact tracing** and reopening, such as the Taiwan model, may be available to some African countries that have contained the virus
- **Gradual segmented reopening** may be needed in other countries
- **Further suppression** may be required where the virus is still spreading
- **Active learning** and data collection can help policymakers ascertain risks as they look to ease lockdowns and towards a 'new normal'

Timing is everything

- **Take advantage of being behind the curve**: learn from other countries and their experiments in reopening
- **Use "extra time"** afforded by lockdowns to rapidly put in place testing, treatment systems and carefully design lockdown exit strategies

THANK YOU!