

COVID-19 IN AFRICA:
A CALL FOR COORDINATED
GOVERNANCE, IMPROVED
HEALTH STRUCTURES
AND BETTER DATA

DATA AND ANALYSIS FROM THE
MO IBRAHIM FOUNDATION



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INTRODUCTION

The spread of COVID-19 is accelerating across the world. In Africa, most countries have now confirmed cases and the number of fatalities is rising. If allowed to spread unmanaged, the impact on African citizens and economies will be substantial.

At the time of publication (30 March 2020), cases in Africa remain low compared to other regions. According to the data available, this can be attributed to both the average age of African citizens, which is the lowest globally, and factors relating to the continent's climate – although this has been recently challenged by some experts.

However, Africa may yet be worst hit by this invisible disease. Africa's already fragile health systems, coupled with a high burden of respiratory and diabetic diseases and densely packed urban agglomerations, are likely to increase the vulnerability of the continent and the lethality of the virus. According to Dr Tedros Adhanom Ghebreyesus of the World Health Organization (WHO), Africa should "wake up" to the COVID-19 threat and prepare for a worst-case scenario.

The speed with which countries can detect, report and respond to outbreaks can be a reflection of their wider institutional capacity. Epidemics are a reality test for public governance and leadership, not only at country level, but also at regional and continental levels, as well as in connection with the wider network of multilateral actors and partners.

Home to over a billion people, public health systems across the continent will quickly be overwhelmed if the virus takes hold. The COVID-19 pandemic is a wake-up call for improving Africa's still weak health structures and related institutional capacity, such as education, infrastructure or national security. It also highlights the urgent need to strengthen data and statistical capacity, notably in relation to health and civil registration.

In this publication, the Mo Ibrahim Foundation analyses Africa's readiness and capacity to manage the COVID-19 pandemic. It draws on a wealth of data, statistics and information from the Ibrahim Index of African Governance (IIAG) and other sources to examine the current COVID-19 context and its immediate challenges. In providing this analysis, the Foundation aims to present a clear and accurate picture, highlighting where efforts can be concentrated in the management and mitigation of this health crisis on the continent.

The paper focuses on the current health landscape and related challenges, while considering the road ahead. COVID-19's global reach will have a huge economic and wider impact on the entire African continent. Occurring later, it will isolate Africa from other recovering regions. On the continent, the pandemic will widen inequalities within and between countries, worsen already existing fragilities, restrict employment and investment prospects, and potentially fuel additional domestic unrest and conflicts. This requires immediate attention, and calls for adequate, coordinated responses.

Analysis overview

Based on data and indices from a number of sources and organisations, including the Ibrahim Index of African Governance (IIAG), this publication has identified some immediate challenges calling for action:

- Sound and coordinated governance is needed across the continent. Any pandemic requires by nature a general coordination of efforts across national and regional borders, and with multilateral actors and partners, even more so in a globalised world.
- There is an urgent need to act on the lessons learned from the Ebola outbreak in 2015 and address the specific weaknesses of Africa's health structures: improve health systems, and citizens' access to them, and more generally strengthen data and statistical capacity.
- Only 10 African countries provide free and universal health care to their citizens, while healthcare in 22 countries is neither free nor universal. Governments need to make swift improvements in handling and improving access to basic health services.
- According to Africa Centres for Disease Control and Prevention (Africa CDC), 43 African countries can test for COVID-19. However, countries are less prepared for the effective point of entry screening, monitoring of travellers and treatment of cases. Efforts to strengthen and enhance preparedness could help to save lives.
- Data coverage on health facilities and health outcomes in Africa is low. Only eight African countries have complete birth registration systems. This impacts the timely production of data, crucial during health emergencies. Quality statistics, and the funding and autonomy of National Statistics Offices, are essential for all stages of evidence-based decision-making and policy formulation, namely in health care.
- With the general weakness of health structures, from human resources to equipment and supply chains, working together is critical now more than ever. Many National Public Health Institutes (NPHIs) have been created after health systems failed to respond to crises due to fragmented and insufficient responses. Finding ways to collaborate and work together to fight this challenge, protect lives and improve health capabilities is critical.
- Africa has shown increasing improvement in *Public Health Campaigns* (+0.6 since 2008 according to the IIAG) with 20 countries seeing an improvement in score. But 15 countries have also registered a decline. All parties should contribute to national information and awareness-raising campaigns and help tackle misinformation and fake news.

- Poor infrastructure can prevent personnel from reaching affected areas at the required speed, while communications infrastructure is similarly important as it allows for reporting and diagnosis. The data show that any action to strengthen services in these areas would be beneficial.
- In terms of the wider impact of COVID-19, on the economy and beyond, according to UNECA the pandemic will hit economic growth from an expected 3.2% down to 1.8%. If not addressed in a collective and organised way, this could reverse the positive growth of the past decade and impact areas where Africa has steadily progressed, be it the fight against malaria or against poverty. Moreover, this could spill over beyond the economy and put to test the institutional fragility of some countries, fuelling further conflicts and instability.

In response to the COVID-19 crisis, the Mo Ibrahim Foundation is also publishing a daily summary of related news and analysis with a focus on the African continent. You can find this on mif.link/covid19 and our social media channels.

01.

COVID-19 IN AFRICA: A RELATIVELY LOWER RISK OF IMPORTATION, BUT A HIGHER VULNERABILITY

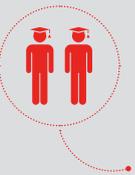
A lower risk of importation

Following the coronavirus outbreak in China in late December, and its spread to parts of Asia, Europe, the Middle East and the US, Africa seems to have been spared a major outbreak for months, recording its first confirmed case only on 14 February in Egypt. Though Africa has close ties with China, its risk of importation of COVID-19 based on travel exposure to China is lower compared to Europe (1% to 11% respectively) according to *The Lancet*, perhaps explaining the relatively late spread of the virus on the continent. As of 25 March, numbers stay limited in comparison to other regions: 43 African countries are now treating 2,412 patients with coronavirus, and 64 deaths have been registered. At this stage, however, it remains questionable whether these low figures reflect reality or a lack of robust data.

Africa-China flows



About 2 million Chinese live and work on the African continent. Africans are also increasingly visiting China for business and study.



In 2018 African students in China were 81,562, 16.57% of the total number of international students in China, the second largest group after Asia.



The airline fleets operating between China and Africa are now capable of carrying about 850,000 passengers annually. On average, eight direct flights a day operate between China and African nations, almost all of which are operated by Ethiopian Airlines.

But a higher vulnerability

Nevertheless, while there is no common agreement by experts about whether and when the COVID-19 pandemic might or will explode in Africa, there are signals that Africa is particularly vulnerable to the virus and its lethality could be higher in the continent.

Africa appears to have comparative advantages when it comes to COVID-19. One advantage is its demography. Africa is the youngest continent in the world, with a median age of less than 20, and it currently seems that younger populations appear to suffer milder symptoms than older people, who have a significantly higher risk of contracting severe symptoms. Early data from China suggest that a majority of coronavirus deaths have occurred among adults aged 60 years and over, and among persons with serious underlying health conditions. Only 3% of sub-Saharan Africa's population is older than 65, compared with about 12% in China. Another advantage could be related to its climate. Among the several environmental factors that influence the survival and spread of respiratory viral infections, air temperature plays a crucial role and in tropical climates, influenza and respiratory viruses are transmitted mostly during the cold rainy seasons. Despite COVID-19 being too new to have reliable data on its spread, it is possible that it will follow the same pattern. Also, there are currently marked temperature differences between the most affected (colder) and least affected countries (warmer) in the COVID-19 pandemic. Both assertions will need to be confirmed in the mid-term.

At the same time, specific, cumulative factors are likely to increase Africa's vulnerability.

- **Packed, unregulated urban areas**

In 2019 nearly 43.0% of Africa's population live in urban areas, including in mega cities with populations often bigger than those of countries, like Cairo (20.5 million inhabitants) and Lagos (13.9 million inhabitants). States with densely packed, fast-growing urban areas and high population mobility across borders are more vulnerable to the spread of contagious diseases. Large urban agglomerations also pose a challenge to diseases control due to: reduced opportunities for social distancing, often poor hygiene and sanitation, making it difficult to implement regulations such as regular hand washing and sanitisation, and limited hospitals and healthcare facilities.

- **A high level of respiratory diseases**

Africa hosts 22 of the 25 most vulnerable countries to infectious diseases, according to the 2016 Infectious Disease Vulnerability Index (IDVI). The incidence of both infectious and non-communicable diseases such as chronic obstructive pulmonary disease (COPD) or asthma is high in Africa. Sufferers of these existing respiratory diseases make up the category most vulnerable to coronavirus, for whom the virus is often lethal. Infectious diseases such as pneumonia, tuberculosis or HIV-associated respiratory illness are amongst the

commonest acute illnesses in African populations. Additionally, some African countries are already struggling with fighting endemic diseases such as tuberculosis or malaria and pre-existing infectious diseases such as Ebola or Lassa fever as well as facing a sharp increase of non-communicable diseases, namely diabetes, which also appears as an aggravating factor in the case of COVID-19.

- **Weak health structures and institutional capacities**

Since the beginning of the outbreak in China, several countries on the continent have started implementing strategic plans to deal with the outbreak. The governments of Kenya and Rwanda have already suspended all international gatherings and events until further notice as a precautionary measure. Systematic quarantines have also been imposed on travellers from high-risk countries by several states, including Burundi and Uganda, while many African airlines, such as RwandAir and Kenya Airways, have suspended flights to a number of high-risk countries such as China and Italy.

The management and control of COVID-19 rely heavily on a country's health capacity. Triangulating data on air travel from areas in China with active transmissions, as well as on the vulnerability to infectious diseases with the capacity of individual African countries to detect and respond to an outbreak, *The Lancet* found that "preparedness" and "capacity" of African countries varies greatly. Countries with the highest "importation risk" (Egypt, Algeria and South Africa) have moderate to high capacity to respond to outbreaks. Countries with the second highest importation risk ranking include Nigeria and Ethiopia, with moderate capacity, aggravated by underlying weaknesses such as high vulnerability to infectious diseases and larger populations potentially exposed. Morocco, Sudan, Angola, Tanzania, Ghana, and Kenya have similar moderate importation risk and medium population sizes; however, these countries present variable levels of capacity and an overall high vulnerability, apart from Morocco.

Multiple factors can weaken epidemic preparedness. Preparedness in low-income countries (LICs) is further challenged by the general weakness of health structures: poor quality of healthcare, low human resources capacity, lack of equipment and facilities and vulnerable supply chains. The CSIS (Center for Strategic and International Studies) estimates the financing gap in epidemic preparedness at \$4.5 billion per year in LICs and LMICs (lower-middle income countries). The ODI (Overseas Development Institute) also highlights that countries with constrained fiscal resources are less resilient and more vulnerable to epidemics, with less scope for fiscal and monetary interventions.

While most governments across Africa already rely heavily on assistance from donors in the health area, finding domestic resources to pay for the response will become increasingly difficult. UNECA (United Nations Economic Commission for Africa) estimates Africa will be hit by an unanticipated increase in health spending of up to \$10.6 billion due to coronavirus and by inflationary pressures due

to supply side shortages in food and pharmaceuticals. According to UNECA, African economic growth will drop from 3.2% to 1.8% and the deep global slow-down will most strongly hit African economies, especially resource-dependent ones such as Nigeria's, which depends on oil for more than half of government revenues and has already seen global oil prices fall by 13% this year. Revenue losses could lead to unsustainable debt.

Donor pledges: a major role for private funders

The COVID-19 spread in Africa has prompted philanthropists and business leaders to pledge money to support African countries. Former New York City mayor Mike Bloomberg announced on 17 March 2020 a \$40 million commitment to support fighting the spread of the coronavirus, particularly in Africa. Alibaba co-founder Jack Ma pledged to donate over one million testing kits to the continent, six million masks and 60,000 protective suits and face shields. The Aliko Dangote Foundation similarly announced a 200 million naira (more than \$0.5 million) donation to fight the virus in Nigeria. A major chunk of the donation, 124 million naira, was earmarked to support facilities to help prevent, assess and respond to health events at point of entry to ensure national health security.

General factors further weaken epidemic preparedness

Weak public administration systems increase vulnerability to epidemics, as they lack the capacity to effectively plan and manage resource allocation and policy formulation, coordination and implementation. Infrastructure patchiness can prevent personnel from reaching affected areas at the required speed, while a fragile communications infrastructure slows down reporting and diagnosis. The presence of armed conflict and political instability disrupts institutional response to epidemics, and citizens' mistrust in governments further weakens its effectiveness. Furthermore, a less educated population is more permeable to potentially harmful misinformation during epidemics.

02.

CURRENT STRUCTURES FOR DISEASE CONTROL IN AFRICA: A RATHER SWIFT AND COORDINATED RESPONSE

The Africa Centres for Disease Control and Prevention - CDC (2017)

Against the backdrop of the Ebola crisis in West Africa, the African Union (AU) Heads of State and Government recognised the need for a Specialised Agency to support AU member states in their efforts to strengthen public health systems and to improve surveillance, emergency response and prevention of infectious diseases. This resulted in the launch of the Africa Centres for Disease Control and Prevention (Africa CDC) in January 2017. Along with the European Centre for Disease Control and Prevention, Africa CDC is the first public health institute mandated to harmonise infectious disease surveillance and control among a group of independent countries.

The Africa CDC has five strategic pillars:

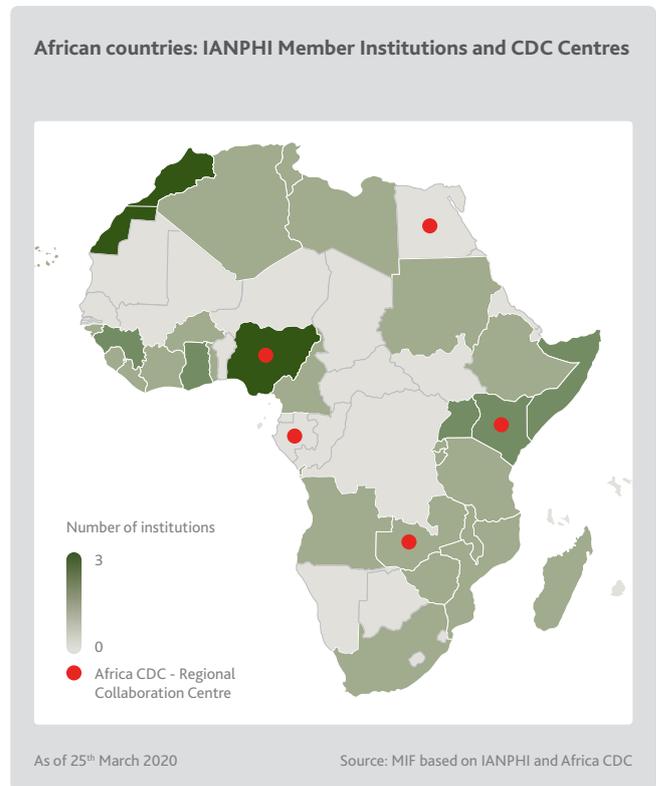
- Surveillance and disease intelligence
- Emergency preparedness and response
- Laboratory systems and response
- Information systems
- Public health research

The Africa CDC started COVID-19 preparedness measures as early as mid-January when it activated its Emergency Operations Centre and Incident Management System, developed an Incident Action Plan and organised an emergency gathering of health ministers to develop a continental strategy.

The International Association of National Public Health Institutes - IANPHI (2006)

At national level, National Public Health Institutes (NPHIs) provide the platform to ensure that the pillars of the Africa CDC are integrated and coordinated. NPHIs are science-based government institutions or organisations who coordinate public health functions and programmes to prevent, detect, and respond to public health threats, including infectious and non-infectious diseases and other health events. Many NPHIs have been created after fragmented and insufficient responses from health systems to previous crises. NPHIs also ensure compliance with international norms and standards such as the WHO's International Health Regulations (IHR) and the Global Health Security Agenda (GHSa).

The IANPHI links and strengthens government agencies responsible for public health. It provides expertise and technical assistance, tailored to the specific context, to member states in order to build robust public health systems. At the end of 2019, IANPHI gathered 114 member countries, with 30 African countries.



The Africa Taskforce for Coronavirus - AFCOR (5 February 2020)

In cooperation with the African Union Commission (AUC) and the WHO, Africa CDC established the Africa Taskforce for Coronavirus (AFCOR), with six work streams:

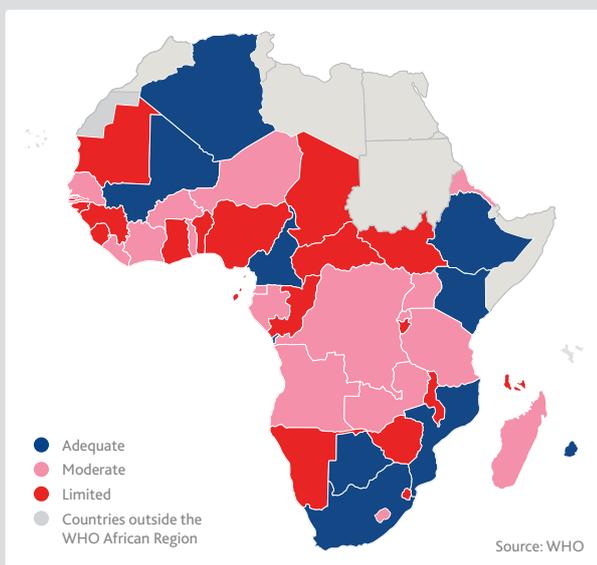
- laboratory diagnosis and subtyping
- surveillance, including screening at points of entry and cross-border activities
- infection prevention and control in healthcare facilities
- clinical management of people with severe COVID-19
- risk communication
- supply-chain management and stockpiles

This has led to the continent notably stepping up its preparedness measures for COVID-19. As of 7 March, at least 43 African laboratories in 43 African countries have already been trained to diagnose the virus while in the beginning of February only two laboratories - in Senegal and South Africa - had been capable to test for the virus. Several training exercises for incoming analysts as well as African experts and countries have been held to prepare for and enhance events-based surveillance. 22 AU member states were trained to strengthen infection prevention and control capacities in healthcare facilities and with the airline sector. Using a free online training course by the WHO 11,000 African health workers have

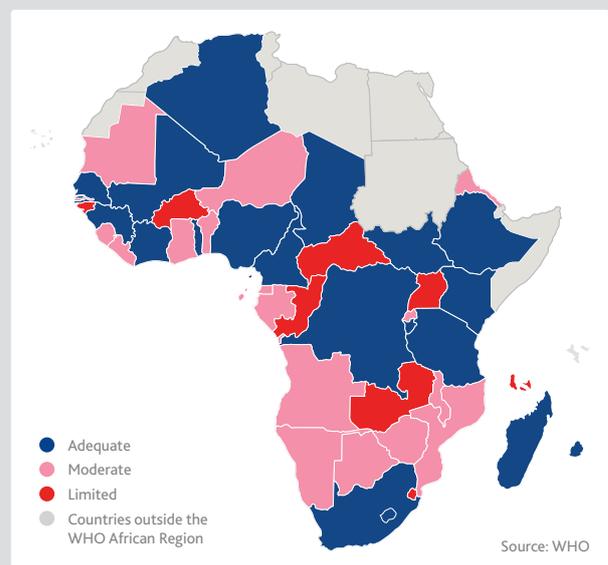
been trained on the virus and the Africa CDC has trained government officials from 26 countries in public information management. In addition, individual countries in Africa are taking necessary steps to enhance their preparedness and to limit the risk of spreading. For example, Nigeria trained rapid response teams in all 36 states which can be deployed in the case of an outbreak, Kenya opened a quarantine centre in Nairobi for suspected cases and Rwanda has put up mobile handwashing sets for public transport passengers.

According to the Africa CDC, 43 African countries have now the ability to test for COVID-19 (as per 7 March). However, countries* are less prepared for the effective point of entry screening and monitoring of travellers (as per 20 February) and treatment of cases (as per 27 February).

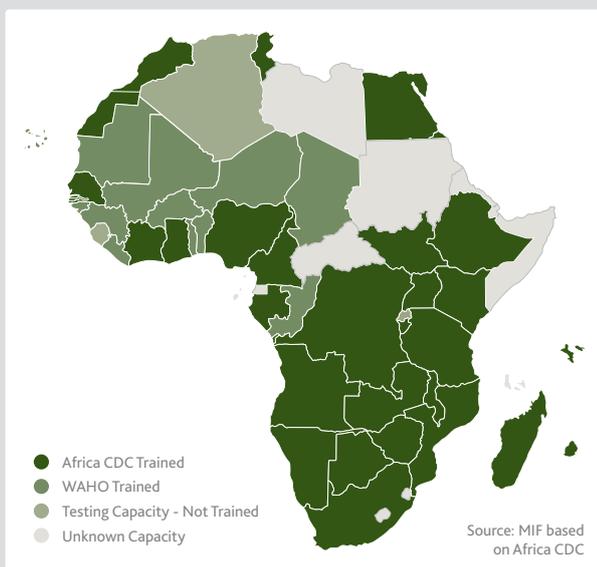
African countries: Case management readiness status for COVID-19 (2020)



African countries: Point of Entry readiness level for COVID-19 (2020)



African countries: COVID-19 Testing Capacity (2020)



Lessons from Ebola. How is institutional legacy helping actors tackle COVID-19 in Africa?

Lack of laboratory testing capacities, inadequate surveillance and reporting and difficulties with isolating patients were among the main reasons for the rapid spread of the Ebola outbreak in West Africa in 2014. The continent has learned from the experience. Not only was the Africa CDC created but many African countries also established National Public Health Institutes, enhancing their capacity to better streamline and coordinate outbreak response. Investments have been made in human resources, information and surveillance capacities as well as in detection and response capacities. Many countries have started to screen passengers' temperatures at the point of entry at airports. Ebola-affected countries still have isolation facilities and expertise in dealing with infectious diseases and have strengthened their risk communications capacity.

03.

WHAT THE AVAILABLE DATA TELL US: AFRICA IS THE WORST PERFORMER IN MOST HEALTH-RELATED AREAS

Various tools and indicators already give a relatively comprehensive picture of Africa's effective preparedness for COVID-19.

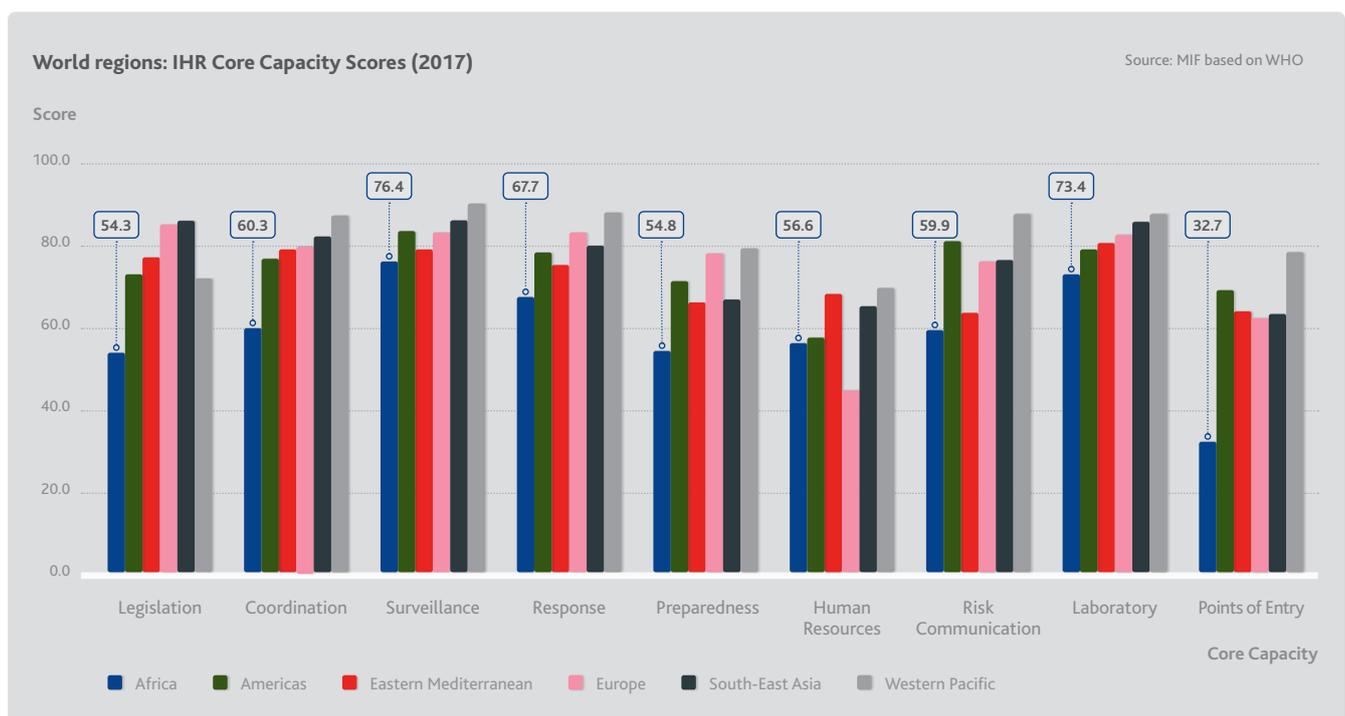
International Health Regulations Monitoring and Evaluation Framework: Africa performs worst in almost every capacity

Developed by the WHO since 2010, the International Health Regulations (IHR) Monitoring and Evaluation Framework (MEF) assesses state compliance with IHR - a global legal agreement aimed at preventing and responding to the international spread of disease while avoiding unnecessary disruption to traffic and trade. The IHR entered into force after the SARS epidemic (Severe Acute Respiratory Syndrome) alerted countries to the higher risk of rapid disease spread in a globalised world. African countries committed to accelerating the implementation of the IHR in 2017. The IHR MEF aims to provide a comprehensive, accurate, country-level overview of the implementation of IHR requirements to develop capacities to detect, monitor and maintain public health capacities and functions. The MEF includes, among other reporting mechanisms, a compulsory annual self-assessment of the IHR's 13 core capacities, known as the SPAR (state-parties self-assessment annual reporting) component.

Excluding the capacities of *Zoonosis*, *Food Safety*, *Chemical* and *Radionuclear* (which *The Lancet* deems as less relevant to COVID-19), the WHO Africa region* performs worse than all other world regions in every capacity but *Human Resources*.

Africa registers its lowest average performance in *Points of Entry* (32.7), which assesses the extent to which states have strengthened public health capacities at airports, ports and ground crossings, both on a routine basis and in response to public health emergencies. Africa's best average scores are in *Surveillance* (76.4), which reflects the extent to which state parties to the IHR have a sensitive and flexible surveillance system with an early warning function, as well as in *Laboratory* (73.4), which assesses state parties' mechanisms and capacity for providing reliable and timely laboratory identification of infectious agents and other hazards likely to cause public emergencies.

Though still low, in all core capacities but *Points of Entry* (-14.3) Africa's average scores have progressed since 2010, notably so in *Human Resources* (+31.6), which assesses the strengthening of public health personnel through development of appropriate knowledge, skills and competencies.

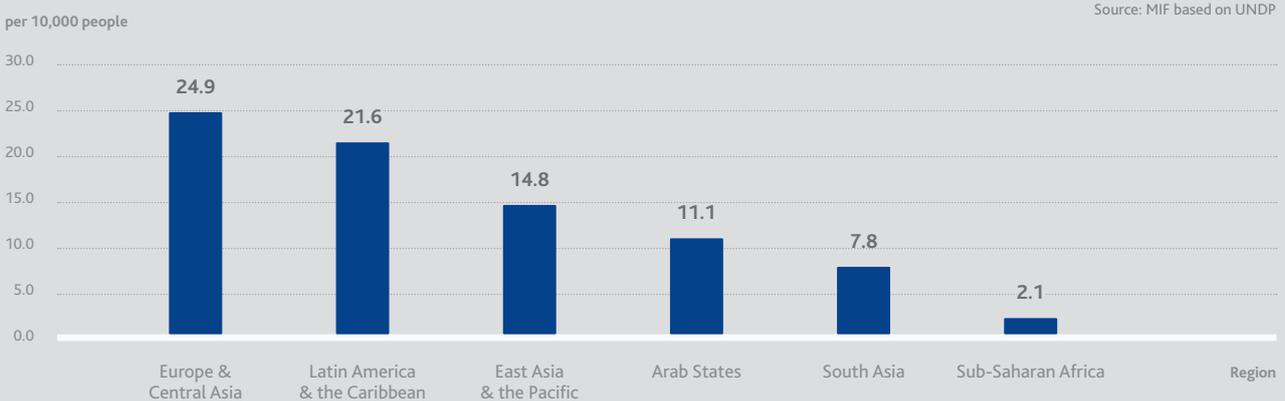


Number of physicians per 10,000 people: sub-Saharan Africa the lowest

A proxy variable commonly used to measure the quality of healthcare is the number of physicians per 10,000 people. At the regional level, sub-Saharan Africa's average for the years 2010-2018 is the lowest (2.1 physicians per 10,000 people). Compared to this, in Europe & Central Asia and Latin America & the Caribbean, the two best performing regions, the average number of physicians amounted to 24.9 and 21.6, respectively.

At the country level, on average during the same period, no African country performed in the global top third of countries, while nine African countries performed in the global middle third: Libya (21.6 physicians per 10,000 people), Mauritius (20.2), Algeria (18.3), Tunisia (12.7), Seychelles (9.5), South Africa (9.1), Egypt (7.9), Cabo Verde (7.7) and Morocco (7.3). All five worst performing African countries averaged less than 0.5 physicians per 10,000 people: Tanzania, Liberia, Sierra Leone, Somalia and Malawi.

World regions: Average number of physicians (2010-2018)



Universal Health Coverage (UHC): Africa fares worse than the rest of the world

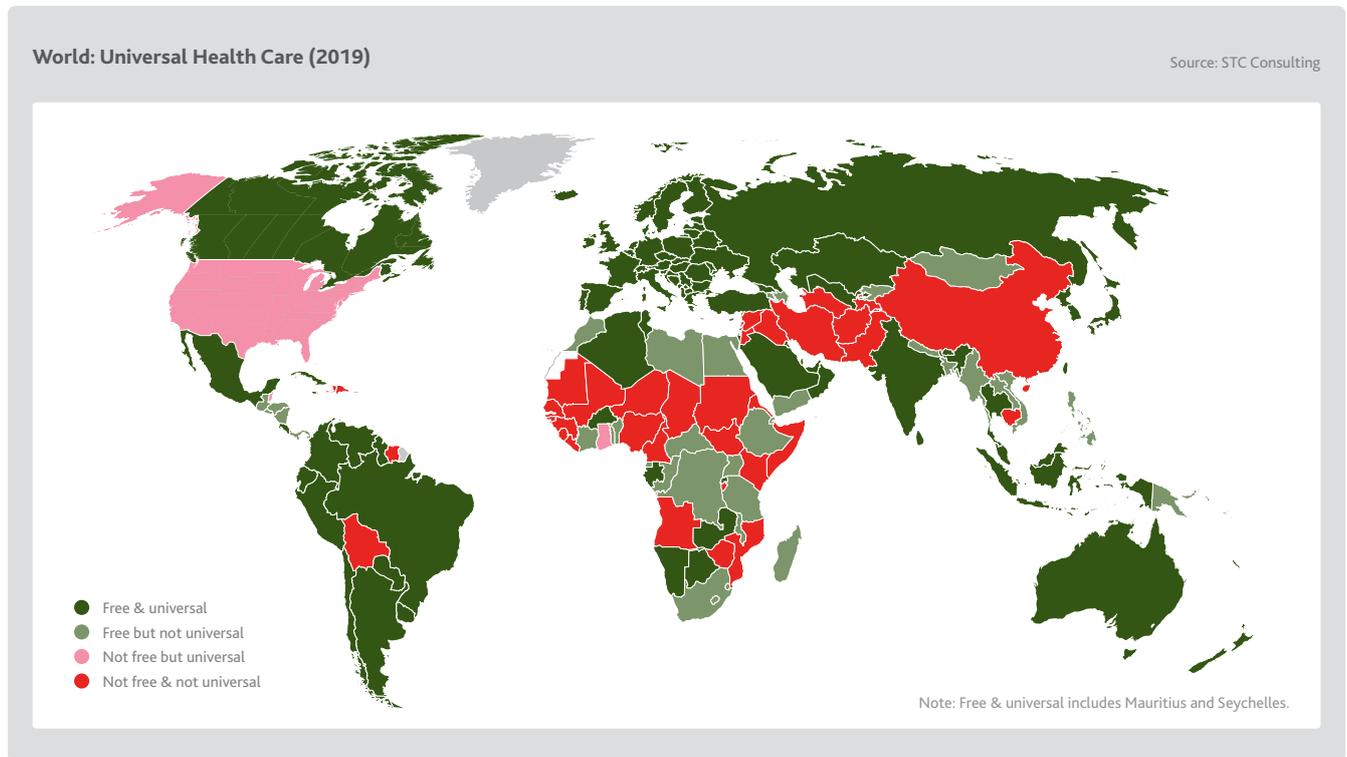
As part of the 2030 Agenda for Sustainable Development, all countries have committed to achieve Universal Health Coverage (UHC) by 2030. UHC means that all people and communities receive the quality health services they need, without financial hardship. While there has been noticeable progress in achieving health commitments related to the Millennium Development Goals (MDGs), such as a decrease in communicable diseases, this is not enough to achieve UHC.

The UN now acknowledges that "key barriers to UHC achievement include poor infrastructure and availability of basic amenities, out of pocket payments and catastrophic expenditures, shortages and maldistribution of qualified health workers, prohibitively expensive good quality medicines and medical products, low access to digital health and innovative technologies, among others".

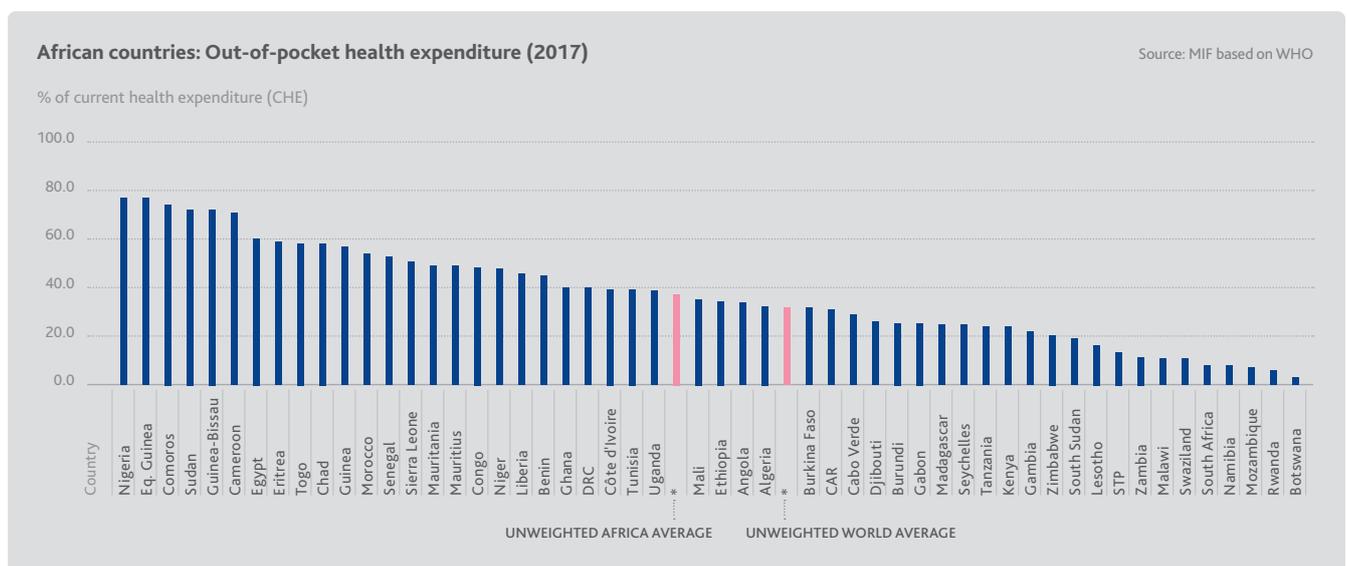
Analysing 49 countries, the ODI finds that most constraints to implementing UHC relate to the lack of financial resources, which leads to an underfunded public sector and rising out of pocket payments.

Results from the WHO's UHC Service Coverage Index show that Africa fares worse than the rest of the world: compared to a UHC index global average of 64 (out of 100) in 2017, the average for the 54 African countries amounted to 48. Of the world's worst ten performers in 2017, nine of them are African countries: Central African Republic, Chad, Eritrea, Guinea, Madagascar, Mali, Niger, Somalia and South Sudan.

According to research using information from government websites, the WHO and Pacific Prime Insurance, only 10 African countries provide free and universal health care to their citizens while healthcare in 22 countries is neither free nor universal.



The 2017 average for the 52 African countries with data on out-of-pocket health expenditure amounts to 37.2% of their current expenditure on health, compared to a global average of 31.9%. Fourteen African countries had a share of out-of-pocket health expenditure that was higher than half of their current health expenditure: Nigeria being the worse, followed by Equatorial Guinea, Comoros, Sudan and Guinea-Bissau. Meanwhile, five African countries had a share of out-of-pocket health expenditure that was less than 10.0% of their current health expenditure: Botswana, Mozambique, Namibia, Rwanda and South Africa.



Although these data can give valuable insights, there is still not enough robust and comprehensive data to measure progress in Africa in removing barriers to UHC. For example, recent, regular and comparable data are lacking for health infrastructure or costs of accessing healthcare.

The Ibrahim Index of African Governance: cumulative impediments to any further progress in *Health*

The state of public health systems or the compliance and adherence with public health legislation and frameworks are essential for emergency preparedness. However, there is a wider range of indirect factors, from institutional to infrastructural to political, that can affect and curb a country's capability to respond to infectious disease epidemics. As a tool assessing the quality of governance in African countries, the Ibrahim Index of African Governance (IIAG) provides useful insights into government capacities relevant to epidemic response as well as wider health capacity.

Health: growing dissatisfaction with basic services



The IIAG sub-category *Health* provides a broad picture of a government's health capacity and the status of a country's health system.

Of the IIAG's 14 sub-categories, *Health* is the most improved over the IIAG latest decennial (2008-2017), with the African average having increased by +7.6 points. 47 countries, home to approximately 93% of Africa's citizens, have managed to improve their *Health* results over the decade.

Progress is driven by almost all constituent indicators of this sub-category, most notably *Antiretroviral Treatment (ART) Provision* (+36.3), *Absence of Child Mortality* (+15.5) and *Absence of Communicable Diseases* (+7.3), which all feature among some of Africa's most improved of the indicators in the IIAG.

However, the indicator measuring *Satisfaction with Basic Health Services* shows an African average decline between 2008 and 2017, pointing to a growing dissatisfaction among Africa's citizens with how governments have been handling improving basic health services over this period.

Public health campaigns: the challenge of information

Effective communication with the public is an important factor for epidemic control and is key to managing public health emergencies in order to inform citizens, to share information and to provide guidance on risk and exposure mitigation.

The IIAG indicator *Public Health Campaigns* reveals the extent to which African countries are educating their citizens on common illnesses and prevention and alerting them to public health hazards such as epidemics.

Africa has shown increasing improvement in *Public Health Campaigns* (+0.6) with 20 countries having seen an improvement in score and 15 countries having seen a decline. 18 countries, however, have not experienced any change in score since 2008.

Only 14 countries achieve the highest possible score of 100.0, meaning that public health emergencies trigger awareness campaigns and information is presented in a way that is easy to understand. Most countries (19) receive a score of 75.0, meaning that epidemics do not always trigger awareness campaigns and that information at times might be presented in a way that makes it more difficult for citizens with less education to understand. Algeria, one of the WHO priority countries for COVID-19, is the only country to receive the lowest possible score of 0.0, meaning epidemics hardly trigger awareness campaigns.

Education: progress is slowing

A more educated and literate population might be more receptive to risk communication and to adopt prevention and protection measures as well as be more aware of basic public health practices and risks.

Education is Africa's fifth lowest scoring of the 14 sub-categories in the IIAG. Despite improvements between 2008 and 2017, between 2013 and 2017 *Education* has registered a decline (-0.7) driven by a fall in the indicators measuring the quality of education, whether education is meeting the needs of the economy and public satisfaction with education provision. Only one country, Togo, improved since 2013 in education quality.

Most countries have indeed been faring better in improving access to education. Even if scores still remain low, a majority of countries have seen more primary school completion and enrolment in secondary education over the last ten years. There has also been an increase in the number of teachers per pupil in primary schools, and the average score for the indicator measuring this is 71.2 out of 100.0 in 2017.

Infrastructure: 66% of population still offline

Different types of infrastructure fulfil different functions when it comes to epidemic response. The movement of personnel and supplies depends on the transport infrastructure and a strong communications infrastructure is essential to support outbreak and diagnostic reporting. Good clinical care needs access to adequate electricity and water supplies in order to maintain sanitary standards.

The African average score for the *Infrastructure* sub-category in 2017 is 44.5 and is the second most improved sub-category of the IIAG between 2008 and 2017. Nevertheless, African countries still perform poorly in key areas. *Reliability of Electricity Supply*, *Transport Infrastructure*, and *Digital & IT Infrastructure* are on average the lowest scoring *Infrastructure* indicators. The latter is particularly key for health campaigns, as although most of urban Africa is connected, 66% of Africans are still offline.

Despite improvements in more recent years, the average score of *Satisfaction with Provision of Water & Sanitation Services* in 2017 is still lower than it was in 2008.

Public Management: concerning trends

The functioning and response of a health system relies on the broader institutional system in which it is embedded. Effective systems for planning, management and resource allocation, and coordination and implementation are all key when it comes to the identification and prioritisation of health risks and the delivery of an efficient and appropriate response.

With an African average score of 43.3 in 2017, *Public Management* is the third lowest scoring of the 14 IIAG sub-categories. Though the sub-category has slightly improved (+0.2) between 2008 and 2017, it is showing a reverse trend in more recent years (-0.4 between 2013 and 2017). In addition to a decline in the quality and the sustainability of fiscal policies, a decreased effectiveness of central government in designing and implementing policy, delivering public services and managing human resources is driving this concerning trend.

National Security: heightened risks

Stable political and social environments are intrinsic to preventing epidemics. Instability caused by conflict and movement across porous borders can severely increase a country's vulnerability and response capacity as well as increase the risk of a disease spreading.

Although *National Security*, with an African average score of 75.1, is the highest scoring IIAG sub-category, it is the continent's most declined between 2013 and 2017 (-3.5). The decline of security on a continental level is driven by a higher number of conflicts, both domestic and external, and increased levels of violence by non-state actors, highlighting the modern transversal security challenges the continent is facing. The consequences are visible in the rising numbers of internally displaced persons (IDPs) and refugees. In IDPs and refugees camps, very present on the continent, COVID-19 spread will be unmanageable and highly lethal.

Health

Top 5		
Country	2017 score	Change (2008-2017)
Mauritius	93.2	-5.2
Libya	89.6	+3.5
Seychelles	89.2	-4.8
Cabo Verde	85.6	+4.8
Rwanda	83.3	+9.0

Bottom 5		
Country	2017 score	Change (2008-2017)
Congo	57.6	+5.8
Liberia	57.3	+14.8
Nigeria	56.2	+10.3
Chad	52.2	+18.7
Angola	51.5	+8.3

Education

Top 5		
Country	2017 score	Change (2008-2017)
Mauritius	83.8	+1.8
Seychelles	78.8	+12.5
Kenya	72.7	+3.4
Algeria	71.6	+6.4
Tunisia	67.7	-7.0

Bottom 5		
Country	2017 score	Change (2008-2017)
Sudan	32.1	-5.7
Mauritania	29.0	-0.6
Angola	27.6	+4.3
Eritrea	25.6	-2.3
South Sudan	20.6	.

Infrastructure

Top 5		
Country	2017 score	Change (2008-2017)
Seychelles	87.2	+11.5
Mauritius	83.0	+4.7
Morocco	70.4	+19.5
Egypt	69.3	+21.7
Botswana	67.2	+2.6

Bottom 5		
Country	2017 score	Change (2008-2017)
Chad	27.1	+7.3
Madagascar	26.5	-6.5
Equatorial Guinea	25.4	+4.4
DRC	24.7	+2.2
CAR	24.4	+1.0

National Security

Top 5		
Country	2017 score	Change (2008-2017)
Cabo Verde	100.0	0.0
Mauritius	100.0	+5.0
Seychelles	100.0	+0.3
Botswana	99.9	-0.1
Namibia	99.7	+8.3

Bottom 5		
Country	2017 score	Change (2008-2017)
Egypt	56.6	-34.5
Cameroon	55.6	-27.2
Nigeria	50.4	-24.6
Burundi	38.8	-20.5
Libya	35.5	-51.8

Public Management

Top 5		
Country	2017 score	Change (2008-2017)
Cabo Verde	64.8	-1.1
Morocco	64.2	+9.9
Senegal	63.8	+6.7
South Africa	62.6	-2.8
Rwanda	61.9	+7.9

Bottom 5		
Country	2017 score	Change (2008-2017)
Angola	33.2	+0.9
Congo	33.2	-6.8
Guinea-Bissau	25.7	-2.1
Comoros	24.1	-1.2
Eritrea	22.0	-8.7

04.

THE ELEPHANT IN THE ROOM: GENERAL LACK OF DATA AND WEAK STATISTICAL CAPACITY

The capacity of African countries to address healthcare challenges remains hindered by a lack of data coverage, stemming from weak statistical capacity. Quality statistics are essential for all stages of evidence-based decision-making and policy formulation, namely in healthcare.

However, the lack of funding and autonomy for National Statistics Offices (NSOs) means that they still have inadequate access to and use of data, are unable to use the latest statistical methodologies, and have statistical knowledge gaps in metadata flow and data updating. This represents a significant challenge for the timely production of quality data, crucial in times of epidemic emergency.

The lack of statistical capacity thus represents a major obstacle to obtaining quality health data in Africa, consequently making the production of evidence-based policy and responses to health challenges more difficult.

Data coverage on health facilities and health outcomes is low

Open Data Watch's Open Data Inventory (ODIN) assesses the coverage of statistics produced by National Statistical Systems (NSSs) as published on the official website of the NSOs. Coverage refers to the availability of statistical indicators in 21 data categories grouped into social, economic, and environmental statistics clusters. The five criteria of coverage assessed are: indicator coverage and disaggregation, data available last five years, data available last ten years, first administrative level, and second administrative level.

The ODIN specifically explores coverage of health-related data categories relevant to pandemics:

- i. Health facilities: referring to the core operational statistics of health systems such as budgets, clinics, hospital capacity, doctors, nurses and midwives.
- ii. Health outcomes: referring to preventative care and morbidity, factoring in data on immunisation rates and incidence and prevalence of communicable diseases.

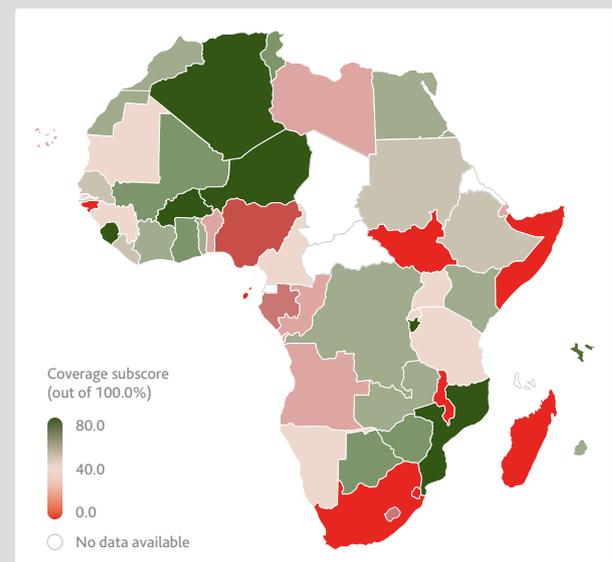
i. Health facilities data

The 2018 ODIN shows data coverage on health facilities has increased on average since 2015 and is the best covered social statistic on the ODIN, with an African average of 43.6%. The best performing African countries are Algeria, Burkina Faso, Burundi, Niger, Mozambique and Sierra Leone with 80.0% data coverage. The worst performing African countries are Guinea-Bissau, Madagascar, Malawi, São Tomé and Príncipe, Somalia, South Africa, South Sudan and Swaziland all with a zero coverage. Concerningly, South Africa and Nigeria, both WHO identified priority countries regarding COVID-19, only score 0.0% and 10.0%, respectively.

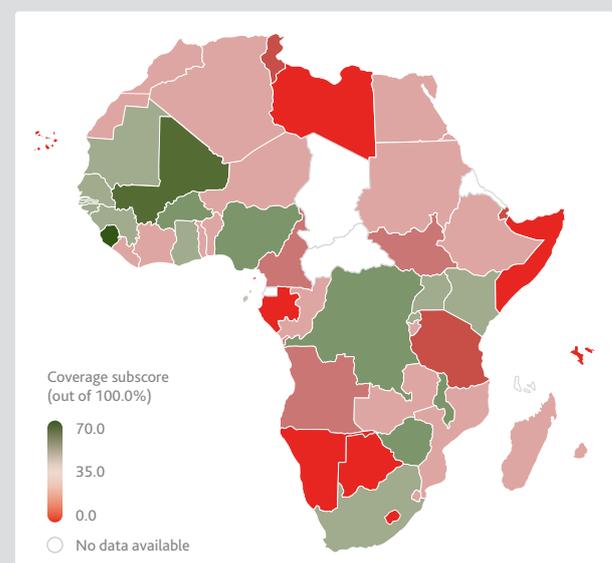
ii. Health outcomes data

The 2018 ODIN shows that since 2015 data coverage of health outcomes has decreased on average across Africa, now standing at 28.9%. The best performing country is Sierra Leone with 70.0% coverage. Mali (60.0%) is the only other African country to have over 50.0% coverage. Botswana, Cabo Verde, Gabon, Lesotho, Libya, Namibia, Seychelles and Somalia all record zero coverage.

African countries: Health facilities coverage subscore (2018)



African countries: Health outcomes coverage subscore (2018)



Source: MIF based on ODIN

Patchy civil registration and vital statistics (CRVS) systems are the first obstacle to efficient health policies

Civil registration is the recommended source for vital statistics. It constitutes the only robust means by which countries can maintain continuous and complete records of vital events such as births and deaths. A civil registration system is a critical element for establishing the legal identity of individuals, providing them with access to public services and securing basic human rights. Civil registration is therefore essential for accessing healthcare.

The IAG indicator *Civil Registration* assesses the existence of a functioning birth and death registration system and the ability of citizens to obtain birth and death certificates in a reasonable period and at no charge. The 2017 African average score for the IAG indicator *Civil Registration* is 60.4, having only increased by +0.7 since 2015, the first year with data available from source. In 2017, only Algeria, Cabo Verde and Namibia score 100.0 in this indicator, while Angola (12.5), Cameroon (12.5) Somalia (12.5) and Equatorial Guinea (0.0) all score under 25.0.

The Coverage of Birth and Death Registration dataset from UNStats paints a similarly bleak picture. Of the 42 African countries with their latest observation in the last ten years of available data (2009-2018), only eight have a birth registration system with a coverage rate higher than 90.0%. The worst performing countries on the African continent are Chad and Tanzania (12.0% and 13.3%, respectively). While the available data points on coverage rate of the birth registration system in Algeria, Libya, Tunisia and Djibouti are higher than 90.0%, they are all outdated (2001 for Algeria, Libya and Tunisia, 2006 for Djibouti).

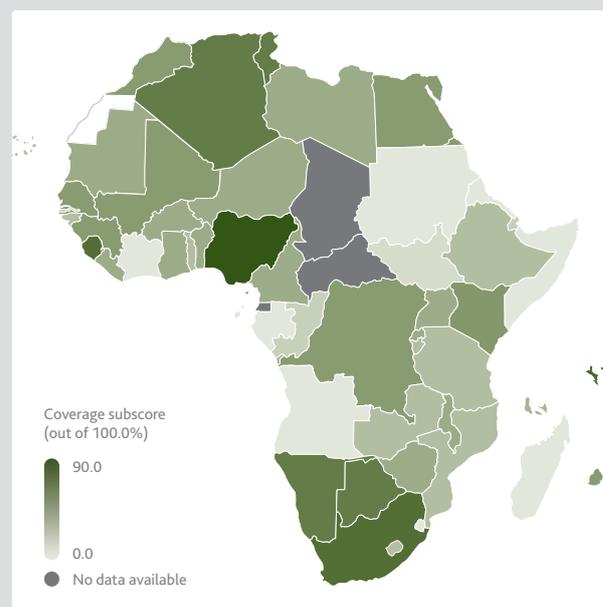
Of the 16 African countries with data on death registration coverage, only three cover 90.0% or more of the population (Egypt, Mauritius and Seychelles). The worst performing is Niger, with a death coverage rate of only 3.5% in 2018. As with birth registration coverage, the data points for some countries exist but they are very old (2000 for Tunisia, 2001 for Algeria and Libya).

The ODIN dataset also includes a 'Population & vital statistics' data category, with the African average coverage subscore down by -9.9 percentage points since 2015, the fourth largest deterioration across

all data categories during the four years with available data (2015-2018). In 2018, African countries, on average, meet only 37.5% of ODIN's criteria for data coverage in the case of Population & vital statistics.

Only four African countries in 2018 met 80.0% or more of ODIN's data coverage criteria for the Population & vital statistics data category: Nigeria (90.0%), Seychelles (87.5%), South Africa (80.0%) and Sierra Leone (80.0%). But eight African countries met none of the criteria for data coverage: Angola, Côte d'Ivoire, Gabon, Madagascar, São Tomé & Príncipe, Somalia, Sudan and Swaziland.

African countries: Population & vital statistics coverage subscore (2018)



Source: MIF based on ODIN

Any pandemic requires by nature a general coordination of efforts besides national or regional borders, even more so in a globalised world. Epidemics are a reality test for public governance and leadership, not only at country level, but also at regional and continental levels, among African institutions and organisations, as well as in connection with the wider network of multilateral actors and partners.

This paper has focused on the immediate health challenges. But we also need to think and act ahead. COVID-19's global outreach will have a huge economic and wider impact on the entire African continent. Occurring later, it will isolate Africa from other recovering regions. On the continent, the pandemic will widen inequalities within and between countries, worsen already existing fragilities, restrict employment and investment prospects, and potentially fuel additional domestic unrest and conflicts. This requires immediate attention, and calls for adequate, coordinated responses.

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