# SECTION V

# **HEALTH OUTPUTS**

- 5.1 Access
- 5.2 Demand
- 5.3 Quality
- 5.4 Resilience

# **Section summary**



An effective health system is one that provides the population with quality essential health and related services as needed. The assessment of a health systems' performance uses the four dimensions of access, quality and demand for essential services, and the resilience of the health system to the shocks that interrupt service delivery.

The overall health systems' performance score for the WHO African Region is 52.9 out of 100. This implies that on average the health systems are performing at a level that is 52.9% of what they can feasibly do. The range among the countries is 34.4% to 75.8%. The current performance level represents a marginal improvement from 49% reflected in the 2018 *State of health in the WHO African Region* report. The best performing health system has an index of 70%. Moreover, when assessed against the four dimensions of health systems' performance, all the countries in the Region are underperforming. Quality of

care is at only 61.6% of what is feasible, demand for services is performing at 51.4%, resilience of the systems is at 48.4% and access to services is at 46.3%.

The performance of the Member States against these dimensions differs, but 36 out of the 47 of them underperform in either access to essential services or the health system's resilience.

The question of supply and demand in the health sector does not follow the same rules as in economics, since health is not a good that can be consumed and exchanged. In fact, the right to demand for health is distant from the consumption of health care. A demand for a health service is not always followed by its consumption or its use. A high demand for health services indicates that the health systems are providing the services that people need for their health and well-being. For many countries in the Region, the demand for health services is still low. Indeed, the likelihood of engageing in care seeking depends on one's psychosocial aspects of affect, expectations and values about the outcomes, habits and norms, plus living conditions. Affect refers to feelings such as anxiety about a serious diagnosis or embarrassment about an examination (Schoemaker, 1982).

Scores for the quality-of-care index vary significantly from one country to another and range from 39.7% to 84.7%. Namibia, Mauritius and Seychelles have reached the 80% target. These countries have a very high coverage of quality of health care services. The quality-of-care score did not seem to be influenced by the income level of a country.

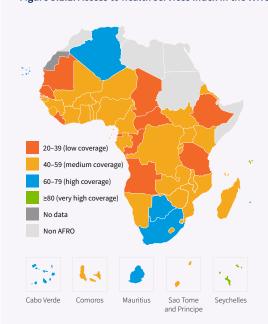
The number of people on HIV treatment in the WHO African Region increased by 1.47 million in 2021 from over 2 million the previous years. The largest increase was in Central Africa and West Africa subregions, while the increase in the East and Southern Africa subregion was lower than in previous years. Efforts must continue to eradicate TB. The proportion of patients reported as having the disease with a conclusive HIV test result was 69% in 2019, an increase from 64% in 2018. Overall, among TB patients with known HIV infection, 88% were on ART in 2020. Member States were well on their way to achieving the goal of eliminating TB in Africa by 2030 if resources were properly allocated and the organisation of the related processes well structured. Two of the main determinants of TB incidence identified in the *Global TB report 2020* that could affect its eradication are GDP per capita and undernutrition, and the situation could be exacerbated by the economic impact of the COVID-19 pandemic.

Health systems' resilience refers to the capacity of a health care system to anticipate, absorb, adapt or transform when exposed to a shock such as a pandemic, a natural disaster or armed conflict, while maintaining the ability to deliver its services and having the same control over its structure and functions. It is interesting to note the countries affected the most by Ebola, for example Guinea, Liberia and Sierra Leone had resilience scores higher than the regional average, suggesting that lessons have been learnt and appropriate investments have been made.

#### 5.1 Access

#### Access to health services

Figure 5.1.1. Access to health services index in the WHO African Region, 2020, WHO/AFRO



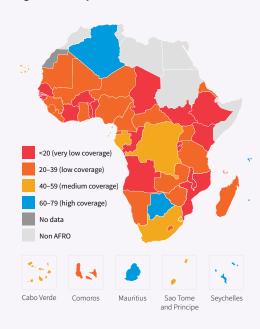
The level of access that people have to health services is a major determinant of whether essential health and health-related services can be provided to support the attainment of their health and well-being goals. Investments in the health workforce, infrastructure, equipment and supplies remain low in the Region.

On average, health systems in the Region are only able to assure accessibility of 47.4% of the potentially available essential services. The monitoring of health in the WHO African Region, focusing specifically on the performance of health systems, shows that only Seychelles has reached the target for access, with its more than 80% score on that criterion. The health systems' coverage is rated as very good, but about 10 countries have not reached a 40% coverage. High-income countries have up to three times the level of access to services as do the low-income countries in the Region.

Access to essential services is monitored through three vital signs, and the lowest score regionally is for the vital sign of physical access, which has a score of 29.6%, compared with financial access with 55.2% and sociocultural access with 57.4%. People have difficulties getting to facilities providing essential services. The Region needs to invest relatively more in interventions that will overcome physical barriers to the services to have the greatest impact on access to services. These include investments to scale up the numbers of the health workforce, infrastructure and medical supplies, targeting the populations without or with inadequate service provision points.

## **Physical access**



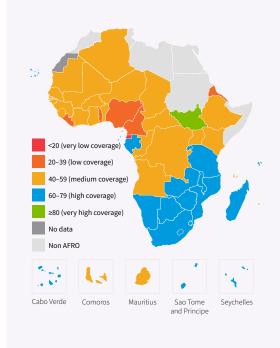


The inequalities in access to health care and the many other constraints in the regional health systems call for better planning of all health structures. Long journeys to health facilities characterise the African health care reality outside major cities and compromise accessibility to basic health care for millions of people. But the notion of distance has more than a geometric dimension, which does not say much about choice in physical accessibility, as it integrates the notion of use of this service to which one has access. Indeed, we cannot discuss accessibility of health services in any place without associating the terms access, accessibility, availability, distance, region, mobility, seasonality, sociopolitical context, etc.

Physical access of health services is essential. Its score is lower than 30% for the Region, while its target index score is 80%. It is, therefore, rated as low. Only 10 of the 47 countries in the Region have the average or a higher index for physical access, and only four have a high physical access index with a score between 62% and 72%.

#### **Financial access**

Figure 5.1.3. Financial access index in the WHO African Region, 2020, WHO/AFRO



Financial accessibility highlights the disparity factors such as the difficulties of paying for care, the nature of health insurance and the use of charitable and other social services. These are elements of a health system based on the market where any individual living above the poverty line must pay for care. New medicines, diagnostic tools and vaccines continue to be inaccessible.

The financial access index for the WHO African Region is 55.2%, which qualifies it as medium in performance ranking. Two countries stand out for this indicator. Southern Sudan, which, owing to its high level of reliance on external aid, has a very high score and is the only one exceeding the target of 80, and Equatorial Guinea with an affordability index of 13.7%, which is considered as very low. The geographical distribution of the countries based on their financial access index shows clusters with a large number of the countries in West and Central Africa subregions with average financial access index scores and majority of the countries in East and Southern Africa subregion with high financial index scores.

#### Socio cultural access



San Tome

and Principe

Sevchelles

The regional score for sociocultural access to health care is 57.4%. Seychelles and Botswana have very good coverage based on this index and four countries have scores close to the 80% target. Five countries have scores that are lower than 40%.

The scores under this index indicate that the participation of the communities in decision-making is weak and their sociocultural values are not taken into consideration in health service provision. But also it should be recognised that some traditions foster resistance to health promotion messages or traditional practices may form the basis for polarisation of consultations with communities or even resentment of health service users. Four of the five countries with the lowest scores on sociocultural access index are in the Central Africa subregion, while the highest scores are found among countries in the and East and Southern Africa subregions.

#### **Outpatient service utilisation**

Non AFRO

Caho Verde

Outpatient care is the health service provided for non-hospitalised patients, which may include diagnostic, observation, consultation, treatment, intervention and rehabilitation services. These interventions can include state-of-the-art medical technology and procedures, even when delivered outside of hospitals. Given its growth, ambulatory medicine has become an important component in training, focusing on the care of patients through multidisciplinary teamwork. Sites where ambulatory care could be provided include medical practice clinics and polyclinics; hospitals; non-medical establishments such as schools and prisons; eye care, dental and pharmaceutical facilities; and open spaces outside institutions, particularly in the countryside. Telemedicine would fit among these.

In sub-Saharan Africa, <sup>2</sup> 35% of outpatient care is provided by the private for-profit sector and 17% by private providers. The use of these services improves access to care and health coverage and could develop with the improvement of digitalisation, but also for financial reasons.

## Access to a core set of relevant essential medicines

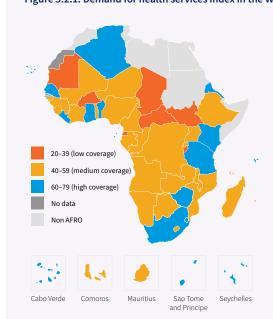
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<sup>2</sup> WHO (2022), Towards better engagement of the private sector in health service delivery: a review of approaches to private sector engagement in Africa, Geneva

#### 5.2 Demand

#### **Demand for health services**

Figure 5.2.1. Demand for health services index in the WHO African Region, 2020, WHO/AFRO



The demand for health services reflects the ability of households and communities to use the essential preventive and curative services they need. The demand index score is relatively high in the WHO African Region compared with the other performance measures. However, there is room for improvement, as the 52.8% score for effective demand, which is still low, would not be adequate to achieve effective performance.<sup>3</sup>

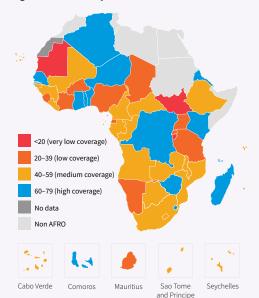
The demand for essential services is monitored through two vital signs: monitoring individuals' healthy actions, the vital sign with the lowest score regionally at 47.9%, and individuals' health-seeking behaviours, at 57.7%. Many community-based interventions are primarily focused on taking the services to the communities as opposed to building community engagement and knowledge, which are needed to generate strong service demand. The Region needs to invest relatively more in interventions that will improve individuals' healthy actions to generate

the greatest impact on the demand for essential health services. Seven countries have a low demand index for health services. The Central Africa subregion is marked by low or medium demand indexes for all its countries. Not a single country with high coverage of health service demand.

<sup>3</sup> WHO (2018), The state of health in the WHO African Region: an analysis of the status of health, health services and health systems in the context of the Sustainable Development Goals, Brazzaville

## **Healthy actions**

Figure 5.2.2. Healthy actions index in the WHO African Region, 2020, WHO/AFRO



The regional healthy actions index was 47.9% in 2020. Three countries had very low scores for this indicator, that is South Sudan, Burundi and Mauritania, all of which had scores below 20%. No country had a score of 80%, the recommended performance level for the Region.

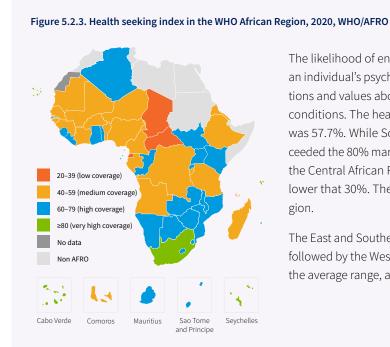
Progress towards UHC is dependent on health care service integration, preparedness and adaptability at the operational levels, that is in the districts and at the facilities, and in the wider national, regional and global political contexts, taking into account the economic, social and political, cultural and environmental factors.

Healthy actions are not homogeneous in terms of their application. Those related to disease prevention include both primary and secondary disease prevention actions. Indeed, people en-

gage in primary disease prevention behaviour in the absence of symptoms through actions such as exercising or consuming healthy diets, which have positive consequences such as feeling good.

Secondary disease prevention aims to diagnose diseases, detect disabilities early and treat diseases to prevent sequelae. In Africa, these aspects are much more complex than primary disease prevention owing to the weight of culture and environment.

# Health seeking



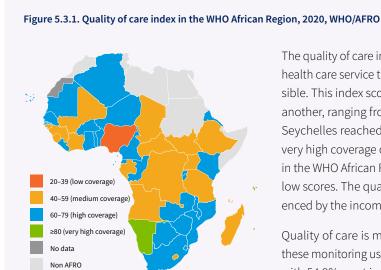
The likelihood of engageing in health care seeking depends on an individual's psychosocial aspects such as the affect, expectations and values about outcomes, habits and norms, and living conditions. The health seeking behaviour score for the Region was 57.7%. While South Africa, Seychelles and Cabo Verde exceeded the 80% mark for the care-seeking index indicator, Chad, the Central African Republic and Equatorial Guinea had scores lower that 30%. These three are all in the Central Africa subregion.

The East and Southern Africa subregions had the highest scores, followed by the West Africa subregion, where the scores were in the average range, and then the Central Africa subregion.

# **ANC Coverage**

# **5.3 Quality**

#### Service quality



Mauritius

Sao Tome

and Principe

Seychelles

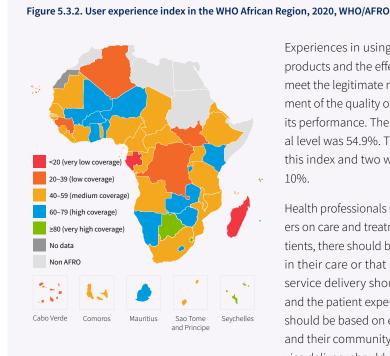
The quality of care index shows that in terms of the quality of the health care service the Region delivers only 62.3% of what is possible. This index scores varied significantly from one country to another, ranging from 39.7% to 84.7%. Namibia, Mauritius and Seychelles reached the 80% target, indicating that they had a very high coverage of quality of care. Nigeria is the only country in the WHO African Region in the category of countries with very low scores. The quality of care score does not seem to be influenced by the income level of a country.

Quality of care is monitored through three vital signs. Among these monitoring user experience has the lowest score regionally with 54.9%, next is patient safety with 61% and then effectiveness of interventions provided with 70.8%. The Region needs to invest more in interventions such as person-centred care initiatives that will improve overall user experience during the care process, to have the greatest impact on quality of care.

#### User experience

Cabo Verde

Comoros



Experiences in using health services, the safety of health care products and the effectiveness of services provided, when they meet the legitimate needs of patients, they allow for the assessment of the quality of care from the user's perspective, and thus its performance. The user experience index score at the Regional level was 54.9%. Three countries exceeded the 80% score in

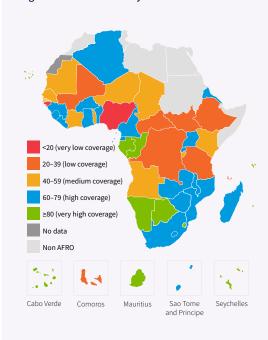
this index and two were far from this target with scores below

Health professionals should no longer be the sole decision-makers on care and treatment plans. Besides the engagement of patients, there should be a move towards individuals' involvement in their care or that of their loved ones. All efforts to improve service delivery should focus on improving clinical outcomes and the patient experience of the care. All care-related activities should be based on efficiency and the need to care for patients and their community. Changes to systems and processes of service delivery should aim to put people at the centre of care.4

<sup>4</sup> WHO (2021), Quality health services: a planning guide

## Safety

Figure 5.3.3. Patient safety index in the WHO African Region, 2020, WHO/AFRO

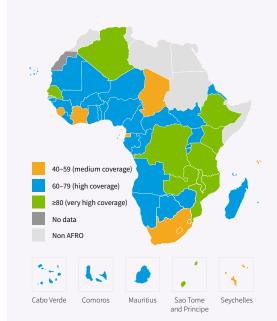


The safety score is a coherent and integrated set of individual and organisational behaviours, based on shared values, that continuously seek to reduce harm to patients that may be related to care. The assumption is that developing a culture of safety helps to control risks in care. A decrease in the safety score can thus be significantly associated with higher mortality.<sup>5</sup>

The patient safety score for the Region is 61%. Eight countries are above the 80% target for the safety score and three others are almost on track to achieve it. A highly populated country like Nigeria still has a score of less than 10%, which may be surprising given the needs of the population and the need for quality care. There is a concentration of countries with low scores in the Central Africa subregion, that is Congo and the Central Africa Republic, as well as in the Horn of Africa, and also to a lesser extent in the Sahel region, notably Mali. These are mostly countries with low sociopolitical stability and are subject to unrest, and therefore, insecurity.

# Care effectiveness

Figure 5.3.4. Care effectiveness index in the WHO African Region, 2020, WHO/AFRO



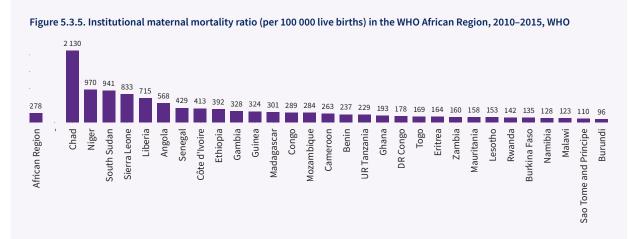
Effective health care concerns the population that consumes that health care and addresses issues of comorbidity, behavioural and physical conditions, heterogeneity, different settings etc. The effectiveness care index for the Region was 70.8%. This score is high, but there is still room for improvement in person-centred care initiatives to enhance the overall user experience along the care pathway in order to have the greatest possible impact on the quality of care. Countries in the East Africa and Southern Africa subregions scored better on this indicator than the countries in the other two subregions, with the score being very high for most countries. Only a few of the countries had a score of an average level for this indicator.

<sup>5</sup> Bonner, AF. Castle, NG. Men, A. and Handler, SM. (2009), Certified nursing assistants' perceptions of nursing home patient safety culture: is there a relationship to clinical outcomes? J Am Med Dir Assoc 2009 Jan;10(1):11–20.

## Perioperative mortality

Surgical patients in Africa are twice as likely to die in hospital after surgery than is average globally. In a randomised study,<sup>6</sup> 332 hospitals in 28 African countries participated in a trial comparing enhanced postoperative monitoring on the one hand and standard care on the other. Although the intervention provided better understanding of what was needed to implement interventions to reduce postoperative deaths in resource-limited settings, it did not generate improved in-hospital survival levels.

#### Institutional maternal mortality



Coverage by skilled attendants at the time of delivery has increased significantly and with it, access to care for more women. A study covering 40 countries whose reports provided data on the number of maternal deaths in health facilities, 31 of which were from sub-Saharan Africa and nine from Latin America, the Caribbean and Asia, found the overall ratio of maternal deaths to be 266 per 100 000 deliveries. The rates varied widely by country but were high for African countries. The institutional maternal mortality ratio for the WHO African Region is 278 per 100 000 live births.

#### **ART retention**

The ART retention rate for people living with HIV after the initiation of treatment varies by country. In the United Republic of Tanzania, for example, which is among the sub-Saharan African countries with a high HIV burden, the in-care population that enrolled for more than 3 years increased from 9.9% in 2008 to 54.5% in 2016.<sup>7</sup> The overall rates of retention in care were 80.9% at 12 months, 57.3% at 24 months and 45.4% at 36 months. The ART retention rates after treatment initiation were 83.9% at 12 months, 64% at 24 months and 53.5% at 36 months. The number of people on HIV treatment in the WHO African Region rose by 1.47 million in 2021 from over 2 million in previous years. The largest increase was in the Central and West Africa subregions, while in the East and Southern Africa subregion the increase was lower than in previous years. The ART treatment coverage level in 2021 was 78% of the people living with HIV, which was similar to the previous year. By 2019, 14 countries mostly in Africa had achieved the UNAIDS target for 2020 where 90% of people living with HIV knew their status, 90% of people who knew they had HIV had access to treatment and 90% of people on treatment had an undetectable viral load.

<sup>6</sup> Biccard, BM. and al. (2021), Enhanced postoperative surveillance versus standard of care to reduce mortality among adult surgical patients in Africa (ASOS–2): a cluster-randomised controlled trial, Lancet Glob Health 2021; 9: e1391–401 Published Online and accessed on August 18 https://doi.org/10.1016/S2214–109X(21)00291–6

<sup>7</sup> Mee, P. et al. (2020), Changes in patterns of retention in HIV care and antiretroviral treatment in Tanzania between 2008 and 2016: an analysis of routinely collected national programme data, J Glob Health. 2019 Jun; 9(1): 010424, Published online 30 March 2019.

## **HIV test results for TB patients**

Figure 5.3.6. Number of HIV test results for TB patients in the WHO African Region, 2010–2014, WHO

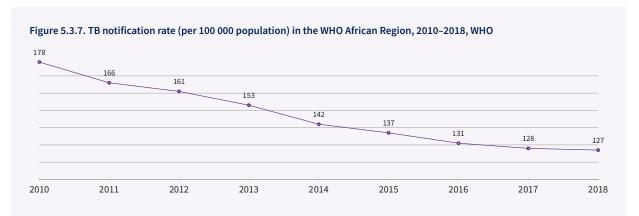
1009 991
1055 147
1085 232
1064 385
2010
2010
2010
2011
2012
2013
2014

Of the total cases of TB patients in 2020, 8.2% were people living with HIV.8 The percentage of patients reported as having TB with a conclusive HIV test result was 69% in 2019, an increase from 64% in 2018. In the WHO African Region, where the burden of HIV-associated TB is high, 86% of TB patients had been tested for HIV. Among the TB patients with known HIV infection, 88% were on ART in 2020.

The countries in the WHO African Region with the highest number of HIV test results related to TB patients were South Africa, Ethiopia, Kenya, Nigeria and the United Republic of Tanzania. South Africa's test results were almost equivalent to the total of the test results of the rest of the countries.

Some 34% of the people living with HIV in the WHO African Region in 2016 were infected with the TB bacteria. People living with HIV are 20 to 30 times more likely than people without HIV to develop active TB disease. Of the people in the Region living with HIV who were newly enrolled in care, 42% were on preventive treatment against TB. About 35% of the deaths among people with HIV in 2015 were due to TB. In 2015 there were an estimated 1.2 million new cases of TB amongst people who were living with HIV globally, 71% of whom were living in Africa.

#### **TB** notification



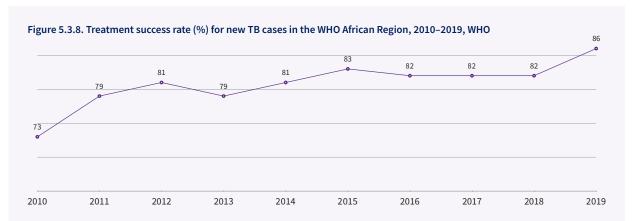
Globally, 7.1 million people were newly diagnosed with TB in 2019. Despite the increase in the cases, there is still a large gap of 2.9 million between those newly diagnosed with HIV and notified and estimates on the people who would be infected with TB in 2019 (10 million). Geographically, most TB cases in 2019 were in the WHO regions of South-East Asia with 44% of the cases, Africa with 25% of the cases and the Western Pacific with 18% of the cases. Low levels were observed in the WHO Eastern Mediterranean Region with 8.2% of the cases, the Americas with 2.9% of the cases and Europe with 2.5% of the cases. Eight countries, including Nigeria with, 4.4% of the cases, and South Africa, with 3.6% of the cases, accounted for two thirds of the global total.

<sup>8</sup> WHO (2020), Global tuberculosis report 2020: Executive summary, Geneva

For TB, the 2020 milestone was a 20% reduction in incidence between 2015 and 2020. For the WHO African Region, progress is visible, but the 16% reduction in the TB incidence is below the world average. The TB notification rate decreased from 178 per 100 000 to 127 per 100 000 between 2010 and 2018 in the WHO African Region.

To accelerate progress towards ending TB, a four part framework was defined for 2019, encompassing commitments, actions, monitoring and reporting, and review as the components. The annual data collection cycles and the TB report are key channels for notification under the multisectoral accountability framework. In many countries, staff shortages and reassignments, which have been exacerbated by COVID-19 are distracting the realisation of the reporting objectives.

#### TB treatment success for new cases



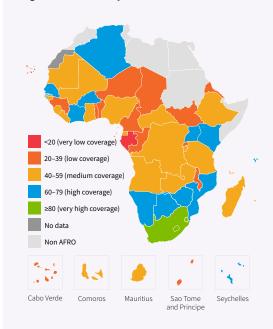
The TB treatment success rate for people starting treatment in 2019 in the WHO African Region was 86%, which was equivalent to the average rate for all the six WHO regions. Treatment success rates for new TB cases in the WHO African Region have increased almost uninterruptedly over the past 10 years, with the rate going from 73% in 2010 to 86% in 2019, with very little fluctuation.

Despite these improvements, the people enrolled in TB treatment programmes in 2019 constituted only 38% of those estimated to have developed TB that year. To close this large gap, one or more of the following conditions must be met: improve TB case detection, increase bacteriological confirmation of diagnosed cases, expand coverage of drug-resistance testing, and ensure that all patients diagnosed with TB start treatment. Except for Gabon, whose treatment success stands at 57%, all the other countries have TB success rates ranging between 67% and 94%. WHO Member States in the WHO African Region are well on their way to achieving the goal of eliminating TB in Africa by 2030, that is if the required resources are properly allocated and the organisation of relevant institutions is well structured.

## 5.4 Resilience

## Health system resilience

Figure 5.4.1. Health system resilience index in the WHO African Region, 2020, WHO/AFRO



A health system's resilience refers to its capacity to anticipate, absorb, adapt to or transform when exposed to a shock such as a pandemic, natural disaster or armed conflict, while maintaining both its ability to deliver services and unchanged control over its structure and functions.

The resilience index is derived from the analysis of responses of key informants related to the different resilience characteristics of their systems, that is (i) awareness, (ii) diversity, (iii) versatility and self-regulation, and (iv) mobilisation, adaptation and integration.

Resilience describes a systemic approach that links emergency and development. Even though most countries have experienced various crises and shocks, some do not systemically equip themselves for this. Countries that experience shocks generally experience a significant decline in their health services, as their resilience is low. The ranking of the countries most affected by

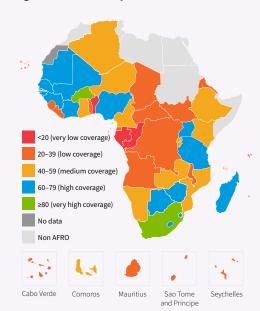
Ebola such as Guinea, Liberia, Sierra Leone, whose scores are above the regional average, suggests that they have learned lessons and made appropriate investments in enhancing the resilience of their health systems.

Resilience is monitored through two vital signs: inherent resilience captures the inbuilt capacity to anticipate, absorb and transform functionality even in the face of a shock, and epidemic preparedness and response core capacity captures the complementary capacity to respond to a shock event. The health system resilience index score for the Region in 2020 was 51.9%. The lowest score regionally was on inherent resilience at 49.1%, which is close to 47.6 for the IHR core capacity.

<sup>9</sup> WHO (2020), Comité régional de l'Afrique, Rapport sur la performance des systèmes de santé dans la Région africaine de l'OMS, Soixante-dixième session, October 2020

# Inherent system resilience





The inherent system resilience level in the Region in 2020 was only 49.1%. Gabon, Congo and Benin lagged behind in this indicator with scores of 5.8%, 6.3% and 13.4%, respectively. Only Burkina Faso with 100% and South Africa with 87.6%, had very high scores.

An inherently resilient system is a structurally integrated and interdisciplinary system built on long-term sustainable financing; that is accessible to all, including women, rural people, the destitute; etc.; that has community participation; that is capable of reacting to any emergency or influx; and that anticipates possible shocks. All this cannot work without leadership and the strengthening of the coordination and regulation mechanisms. The system must integrate humanitarian and life-saving emergency components into its programmes.

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