

SECTION IV

HEALTH INPUTS AND PROCESSES

- 4.1 Health financing
- 4.2 Health governance
- 4.3 Health information
- 4.4 Service delivery
- 4.5 Health workforce
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Section summary

The current expenditure on health in a nation corresponds to the real final consumption of health services and medical goods, whether this consumption is individual or collective. The part of the public expenditure allocated to health reflects the priority given to the health sector. The WHO African Region ranks fifth out of the six WHO regions with spending of 5.3% of its GDP on health. To facilitate access to affordable, quality health services for low-income Africans, public and private sectors need to initiate partnerships in the areas of education, employment, mobility, access to rights and gender equality to improve the lives of people in both urban and remote areas.

The average per capita expenditure on health in sub-Saharan Africa tripled over the period 2002–2011, rising from US\$ 27 to US\$ 90 before falling between 2014 and 2016. Debt servicing costs have a significant impact on country budgets and can be a problem that is more acute for some countries facing a security threat. In the Sahel region, some countries had had to quadruple their security spending between 2013–2018. In 2019, the average debt level in sub-Saharan Africa was around 57% of the region's GDP.

The African continent has made progress in improving some health indicators, but this progress needs to be sustained. Health equity, value for money and accessibility of health services for all are among the issues that still need to be addressed. It is not about spending more but about spending more equitably. Weak budget execution and reduction of the resources available for health result in high expenditure and an inequitable health system that guarantees access to only those who can pay. African Union Member States pledged to allocate 15% of their government expenditure to health in the Abuja Declaration of 2001.

Leadership and governance involve ensuring strategic policy frameworks exist and are combined with effective oversight, coalition building, regulation, attention to the system design, and accountability. In the framework of the SDG agenda, WHO works to support countries to exercise effective health systems governance, focused on strengthening the capacity of governments to develop and implement strategies towards achieving UHC by 2030.

In almost half of sub-Saharan African countries, the legal time to register a birth is more than one month. Also, the legal time to register a death varies from 24 hours to one year. WHO is establishing standards and best practices for the collection, processing and synthesis of data by consolidating and improving the International Classification of Diseases (ICD–11) tool that facilitates reporting of accurate data on causes of death, so that countries regularly generate and use data that meet international standards. To improve health and reduce death and disability around the world and particularly in the WHO African Region, it is essential to regularly collect and analyse data of high quality on deaths and their causes and disability. Aspects of death and disability, which are part of public health, are still surrounded by many difficulties, as are ethical issues related to the preservation of anonymity. When dealing with individual patient data, it is important to identify specific information in the form of a unique identifier so that the patient can be uniquely and reliably referenced even without sophisticated means. There is need for countries to set up consolidated architecture to address data security and interoperability issues.

The health workforce is an essential part of health systems, and if it is insufficient, poorly qualified or poorly managed, reaching the level of performance necessary to achieve UHC and the SDGs might be compromised.

Health services can vary greatly depending on whether their location is urban or rural, if the patient is an outpatient or an inpatient, and what the nature of the patient's pathology, financial capacity or sociocultural background is. This state of affairs runs counter to the UHC objective but is the reality that countries still must face, because of the inequalities inherent in health systems, which have even been enhanced by the COVID-19 crisis, conflicts and other disasters. These differences in treatment can have enormous consequences in the provision of care and the consideration that health care workers may have for users. The distribution of health services is very sparse within the countries but there are stark differences between urban and rural areas. The density of the population goes hand in hand with the density of services, as does the density of the health services.

The results of a WHO multidisciplinary, multicountry cross-sectional survey in 13 urban, peri-urban and rural sites in 10 African countries provide people's perspectives on the components of the health system that need to be improved to better meet their expectations. The study showed that for service delivery, the public sector led in the number of health facilities, followed by the private sector and then traditional practitioners. In urban areas the private sector accounted for 55.9% of the health services, while in peri-urban areas traditional and spiritual healers accounted for 67.1% of the health services.

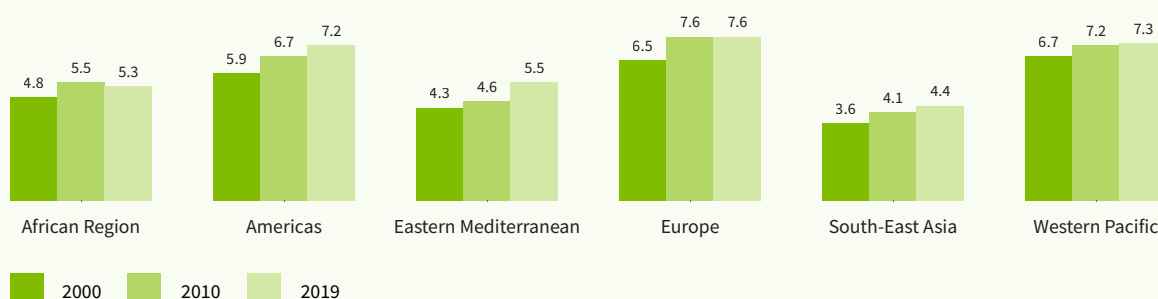
The distribution of health services is sparse within countries and differences exist between urban and rural areas. The density of the population goes hand in hand with the density of services, as does the density of health services. There is currently no global standard for inpatient bed density relative to the total population. The average in-patient bed density is 27 per 10 000 population globally and 10 in the WHO African Region. The Service Availability and Readiness Assessment Survey (SARA) suggests benchmarks of 18 and 39 inpatient beds per 10 000 people for lower-income and upper-income countries, respectively.

The number of beds available in intensive care units in public, private, general and specialised hospitals that are regularly maintained and staffed by qualified and easily mobilised personnel are more difficult to estimate for the countries of the WHO African Region as a whole. This fact makes it difficult to determine the capacity to mobilise in the event of a critical situation or crisis or such as that of COVID-19. Efforts to scale up the most common interventions and to achieve the SDGs through global health partnerships have drawn attention to the need for rigorous monitoring of health services in countries. The African Medicines Agency (AMA) also will play a major role in strengthening regulatory oversight and facilitating access to safe and affordable medicines across the continent.

4.1 Health financing

Total current expenditure on health as percentage of gross domestic product

Figure 4.1.1. Total current expenditure on health as a percentage of GDP in the WHO regions, 2000, 2010 and 2019, WHO



The portion of GDP spent on health¹ differs by region. Of the six WHO regions, in 2019 Africa was fifth in terms of the share of the GDP spent on health with 5.3%. The European Region led with 7.6%, while South-East Asia came last with 4.4%.

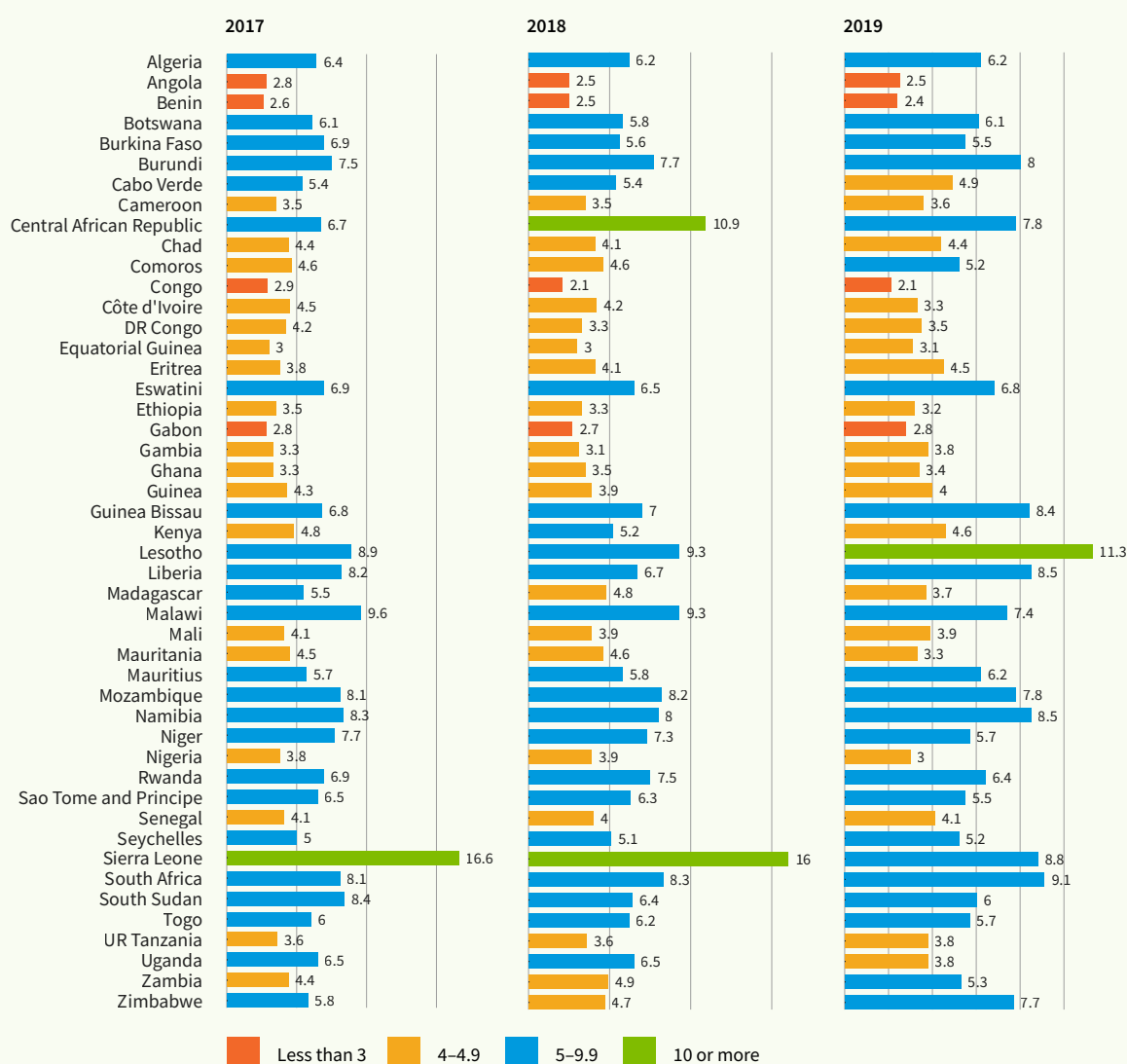
All the regions have seen improvement over the last 20 years, with the share of their GDP spent on health rising from 9% to 27%. Only in Africa was there a decline in the last decade.

The African continent has a population that represents 14.4% of the world's people, but it accounts for only 1% of the global health spending. It spends 5.3% of its GDP on health. The average health expenditure in sub-Saharan Africa tripled over 2002–2011, rising from US\$ 27 to US\$ 90 dollars per capita before falling between 2014–2016. Debt servicing costs have a significant impact on countries' budgets, a problem that is even more acute for countries that are facing a security threat. In the Sahel region, some countries had to quadruple their security spending between 2013 and 2018. In 2019, the average debt level in sub-Saharan Africa was around 57% of the region's GDP.

Through national reforms, regional and international initiatives, the continent has improved its capacity for fiscal mobilisation, efforts that increased the level of revenue collection to 19.3% of GDP in 2015. However, much remains to be done. The continent has a health sector financing gap. Redefining national resource mobilisation strategies and the dialogue with partners for health is an imperative.

1 As total current health expenditure, excluding equipment expenditure

Figure 4.1.2. Total current expenditure on health as percentage of GDP in the WHO African Region, 2017–2019, WHO

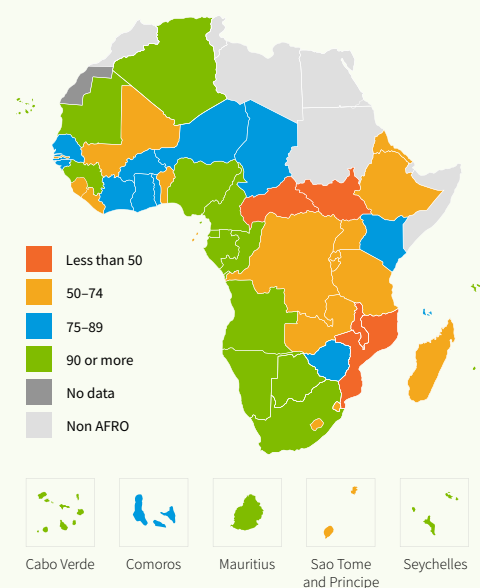


The median percentage of GDP spent on health changed more between 2000 and 2010 than between 2010 and 2019. The interquartile range (half of the countries with a GDP percentage around the average) is more balanced. Overall, between 2010 and 2019 countries narrowed the gap in terms of the percentage of GDP spent on health, with Lesotho standing out as having a higher portion of GDP spent on health. The top quartile (the 25% of countries with the highest percentage) is also more homogeneous than 10 years ago. The bottom quartile (the 25% of countries spending less on health as a percentage of GDP) is made up of countries that had increased their rate from 2010.

Public health expenditure has increased globally, but for some countries it has declined or remained stable. Despite the large disparities, overall, the percentage of GDP allocated to health is higher in upper-middle-income countries than in low-income countries. The priority given to health is lower in low-income countries and has declined, even though domestic spending on health is critical to achieve development goals related to health. In 2018, most low-income countries spent between 4% and 8% of their budgets on health and only Lesotho spent more than 10%. Four countries had health spending that was less than 3% of the national budget.

Public domestic sources of current spending on health as percentage of current health expenditure

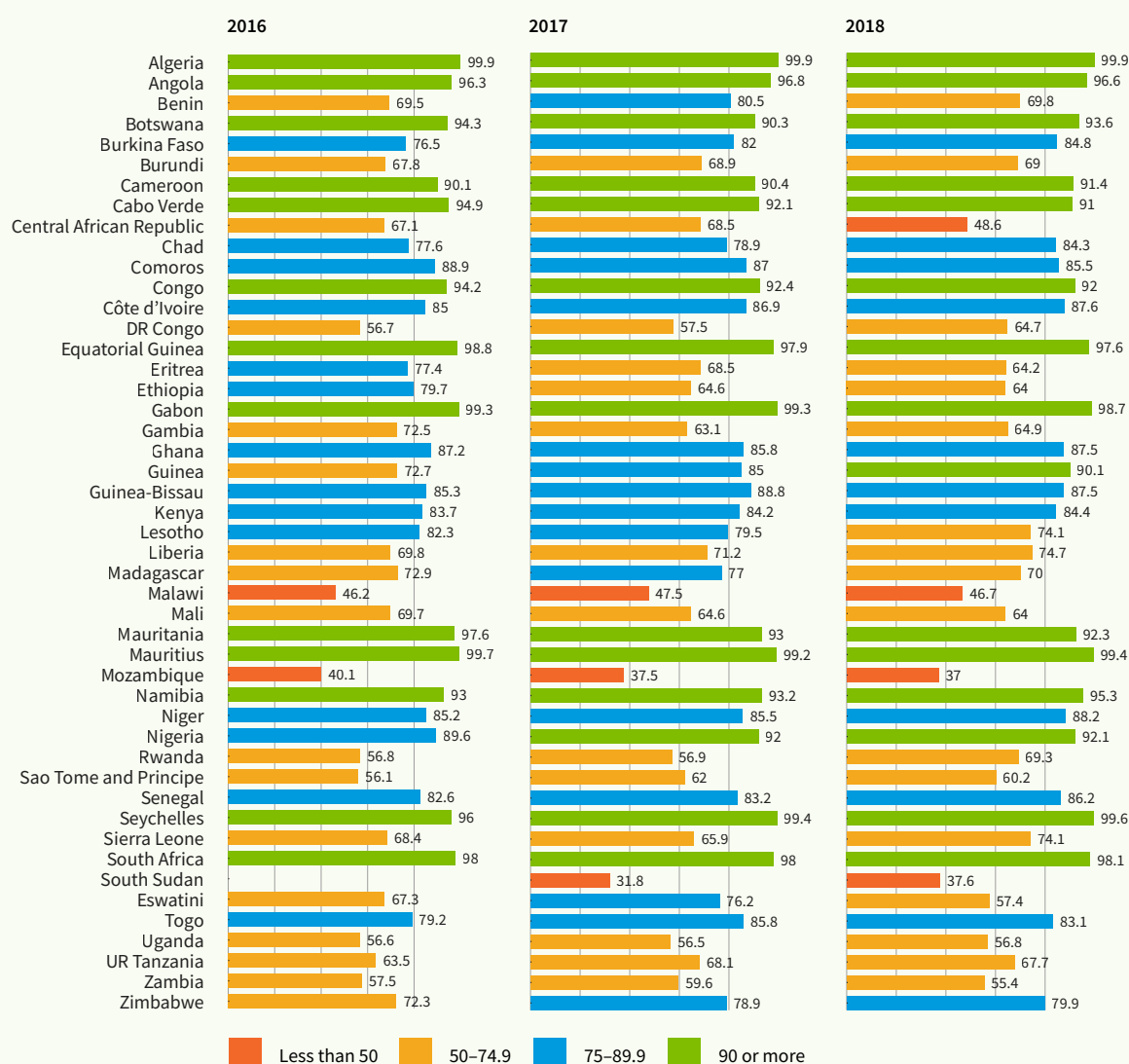
Figure 4.1.3. Public domestic sources of current spending on health as percentage of current health expenditure in the WHO African Region, 2018, WHO



The transformation of health expenditure seen across countries is related to public financing. It is tax based and allows funds to be pooled for more equitable and efficient spending that meets the needs of the population. Currently, health expenditure varies greatly among countries. More than 75% of the global health spending occurs in the Americas and European regions. The WHO African Region accounts for 1%.²

The levels of domestic public financing in Africa in 2018 were between 37% and 100% of the health spending. These proportions were related to the countries' income levels, accentuating inequalities in health spending. The part of the public expenditure in the health budget reflects the priority given to the health sector.

² WHO (2021), Global spending on health 2020: weathering the storm, Geneva

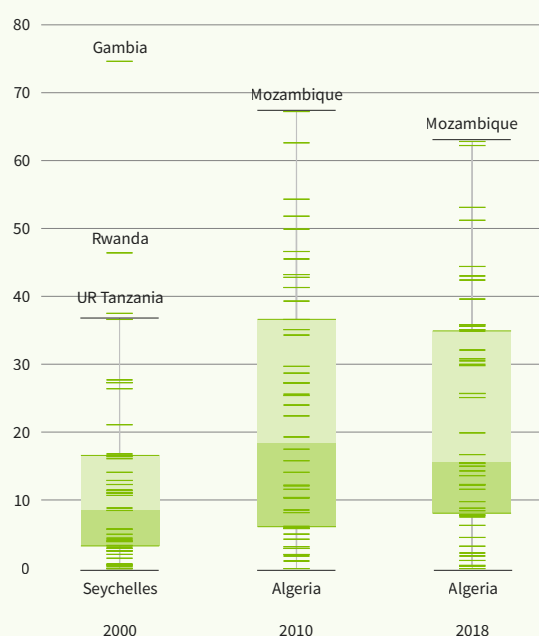
Figure 4.1.4. Public domestic sources of current spending on health as percentage of current health expenditure in the WHO African Region, 2016–2018, WHO

Public spending on health did not increase in most African countries between 2016 and 2018. The reasons varied by country or income group. While budgetary priorities are the main instrument of expenditure allocation in high-income countries, economic growth is the main driver of public spending on health in low-income and middle-income countries. Public spending on health is essential for the achievement of UHC, but governments' prioritisation of health is not a given. In the Region, government funds account for less than 40%³ of the PHC expenditure, with huge variations among countries. More research is needed to determine the appropriate distribution of spending between PHC and other health care priorities and supplies to better understand the share borne by governments.

3 WHO (2018), Public spending on health: a closer look at global trends, Geneva

External sources of current spending on health

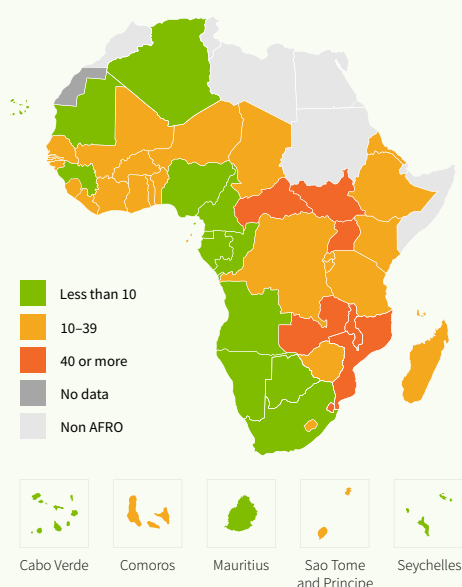
Figure 4.1.5. External health expenditure as a percentage of current health expenditure in the WHO African Region, 2000, 2010 and 2018, WHO



Expenditure on health care financed by external aid has decreased slightly since 2010 after a marked increase between 2000 and 2010. The proportion of health spending financed by external sources is around 30% in low-income countries and 10% in lower-middle-income countries. In 2018, external health expenditure accounted for more than half of the health spending in four low-income countries, including Mozambique and South Sudan.

The proportion of health expenditure financed by external aid has evolved in different ways from one country to another and according to their socioeconomic situation. The cases of South Sudan and the Central African Republic, countries that have increased their health expenditure in recent years, demonstrate that donors have upped the priority given to health in low-income countries.

Figure 4.1.6. External health expenditure as a percentage of current health expenditure in the WHO African Region, 2018, WHO



At the UN General Assembly special session on UHC in 2019, countries committed to strengthen PHC,⁴ with the recommendation that each Member State reallocate an additional 1% of its GDP to PHC from public or external sources.

Thirty countries in the WHO African Region reported experiencing partial or total disruption of their essential health services from 2020 to the first quarter of 2021, and 38 countries indicated that the services were still disrupted in 2021.⁵

Development assistance⁶ in the health sector today constitutes a very complex web where all forms of cooperation approaches intersect. International cooperation in the field of health is now regularly discussed in a multitude of forums such as G8 summits and the UN Security Council.

4 WHO and UNICEF (2018), A vision for primary health care in the 21st century: towards universal health coverage and the Sustainable Development Goals

5 Two WHO rapid global surveys on the continuity of essential health services were conducted during the COVID-19 pandemic, first between May and July 2020, then in the first quarter of 2021.

6 Gobbers, D. (2004), La coopération en santé dans les pays africains

A new avenue for trade negotiations has opened, particularly on medicines, with international bodies, bilateral partners and humanitarian associations as stakeholders. And since the COVID-19 crisis, vaccines have brought a new deal to health cooperation. The figures are difficult to produce because of the differences in the accounting mechanisms of each party and the difficulties in distinguishing between commitments and disbursements. Nevertheless, it can be estimated that the international community's aid to health problems in African countries amounts to more than US\$ 20 billion dollars.⁷

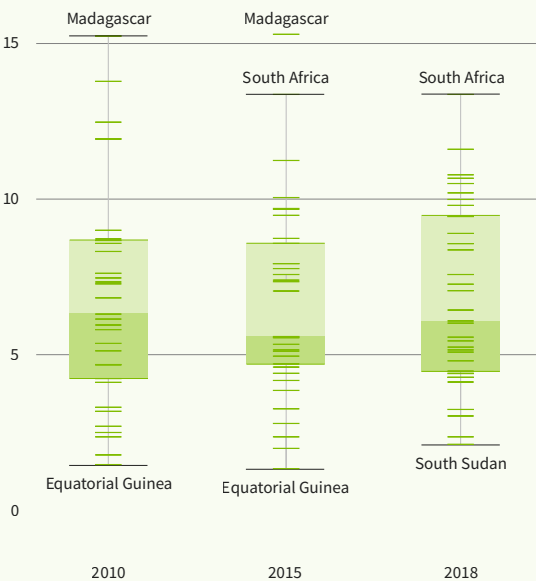
Today, several health initiatives newly launched by major donors and development agencies acknowledge the explicit need to invest in health systems, to better coordinate development assistance and to introduce a framework for mutual accountability that recognises the need for country-owned and country-led initiatives.

Total net official development assistance to medical research and basic health sectors

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National budget allocated to health

Figure 4.1.7. National budget allocated to health in the WHO African Region, 2010, 2015 and 2018, WHO



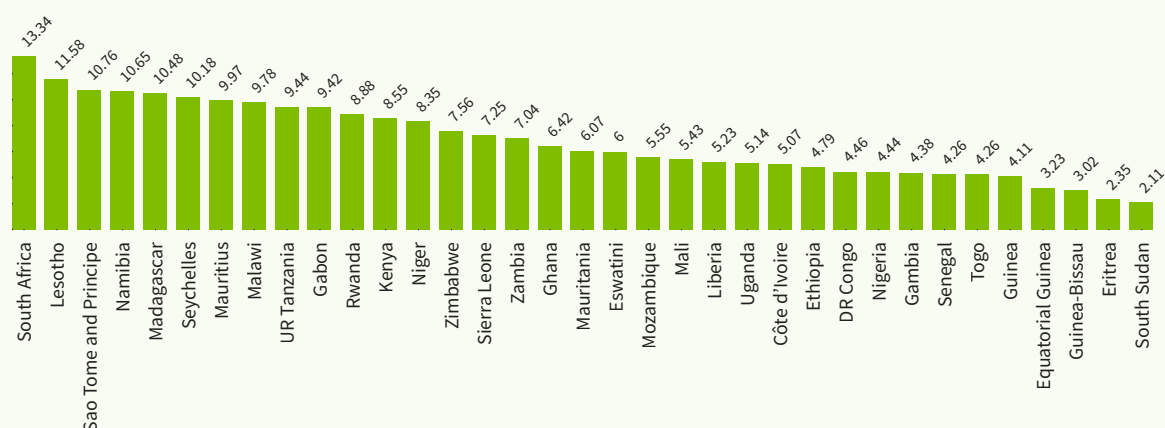
The Abuja Declaration of 2001 was a call for the mobilisation of more resources from public coffers for the health sector. African Union Member States pledged to allocate 15% of their government budget to health.

The African continent has made progress in improving some health indicators, but this progress needs to be sustained. Health equity, value for money, and accessibility of health services for all are among the issues that still need to be addressed. It is not about spending more but about spending more equitably.

All countries in the WHO African Region are seeking to expand their budgetary space to improve their response to the needs of the social sectors and the health sector. The implementation of better budget and resource prioritisation and efficiency, however, has rarely been studied or measured.

⁷ IDA source data for FY 2019–21, of which 70% of the 29 billion allocated is for Africa. The International Development Association (IDA) is the World Bank institution that helps the world's poorest countries. Founded in 1960, it provides grants and low interest or no interest loans to finance projects and programmes that stimulate economic growth, reduce poverty and improve the lives of the poorest.

Figure 4.1.8. National budget allocated to health (%) in the WHO African Region, 2018, WHO

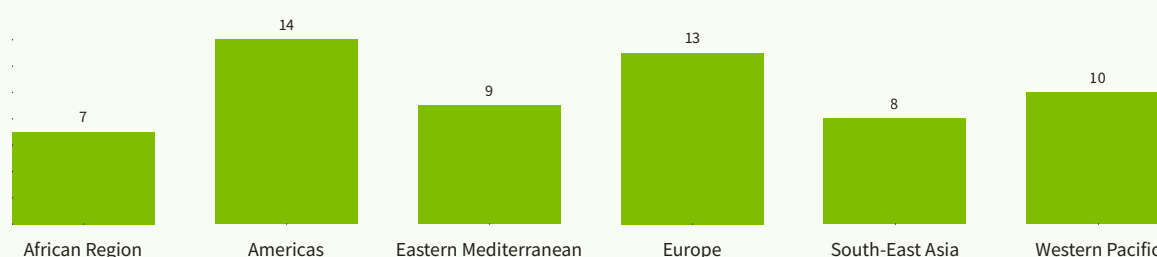


The strong GDP growth a few years ago increased the resources available. However, the share of the resources allocated to health has remained stable and relatively low. Their portion of the national budget the countries allocated to health in 2018 ranged between 2%, for South Sudan, and 13.3%, for South Africa, with the average for the Region being around 6% in 2018. The range between the countries spending the least on health, that is between 2% and 6% and the median value is narrower than for those spending between the average level for the Region, that is 6%, and the highest level, that is 13.3%. Except for Equatorial Guinea, countries with higher incomes spent a relatively larger share of their budget on health.

There are best practices from across the continent to learn from: (i) Gabon and Ghana have earmarked funds for the health sector from government revenues, (ii) the United Republic of Tanzania and Uganda have implemented reforms to improve resource flows to health facilities and have also improved resource utilisation, and (iii) Rwanda has achieved high levels of population coverage through social protection systems that respect access to health services.

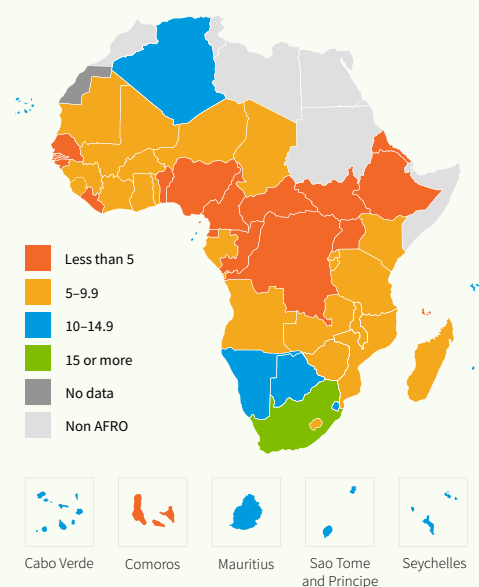
Domestic general government health expenditure as percentage of general government expenditure

Figure 4.1.9. Government health expenditure as percentage of total government expenditure in the WHO regions, 2019, WHO



Public spending reduces inequalities in health care access only if the allocations are carefully planned to ensure that the entire population has access to PHC. Government health expenditure in the WHO African Region in 2019 constituted 7% of the total government expenditure. The ranking of the WHO regions is topped by Europe and the Americas with their government health expenditure standing at 13% and 14% of public expenditure, respectively.

Figure 4.1.10. Government health expenditure as percentage of total government expenditure in the WHO African Region, 2019, WHO



The countries of the Southern and East Africa subregions had better scores than the West Africa and Central Africa subregions. Botswana and South Africa's scores were in range of the average proportions observed in the Americas and Europe. More than 15 countries did not invest at least 5% of their government expenditure in health. Cameroon ranked last in this list with less than 1% of expenditure devoted to health, which translated into less than US\$ 10 per citizen.⁸

⁸ <https://countryeconomy.com/government/expenditure/health/cameroon>

4.2 Health governance

Existence of a national health sector policy, strategy or plan

Table 4.2.1. Countries with a health strategic plan or policy in the WHO African Region, 2020, WHO

Health policy / strategy period	Country	Health policy / strategy period	Country	Health policy / strategy period	Country
2010–2020	Namibia	2015–2021	Liberia	2017–2022	Malawi
2012–2020	Mauritania	2015–2024	Guinea	2018–2022	Guinea-Bissau
2014–2017	Ghana	2016–2020	DR Congo		Nigeria
2014–2018	Eswatini		Zimbabwe	2018–2023	Kenya
2014–2019	Mozambique	2016–2021	Eritrea	2018–2024	Rwanda
2014–2020	Gambia	2016–2022	Togo	2019–2023	Lesotho
2014–2023	Mali	2016–2026	South Sudan	2019–2028	Senegal
2015–2019	Madagascar	2016–2027	Cameroon	2020–2024	Equatorial Guinea
2015–2020	Ethiopia	2017–2021	Gabon		
	Seychelles		Mauritius		
	South Africa		Niger		
	Uganda		Sierra Leone		
	UR Tanzania		Zambia		

Leadership and governance involve ensuring strategic policy frameworks exist and are combined with effective oversight, coalition building, regulation, attention to system design and accountability to deliver on envisaged objectives. At least 33 countries in the WHO African Region had an updated health strategic plan in 2020. National health policies, strategies and plans play a key role in defining a country's vision, policy directions and strategies for ensuring that its population is healthy.

The development of national health policies, strategies and plans is a complex and dynamic process, it varies from one country to another and it involves different stakeholders with the aim to:

- Strengthening health systems;
- Guide and steer the entire pluralist health sector;
- Consider social determinants and the interactions between health and non-health sectors.

Three main categories of stakeholders interact with each other to define the health system and its governance:

- The state structure, that is the government organisations and agencies at the central and subnational levels;
- Health service providers who include different public and private for-profit and not-for-profit clinical services, para-medical and non-clinical service providers, health care workers' unions, professional associations, and networks of caregivers and care service providers, etc.;
- Citizens, who include people representatives, patients' associations, civil society organisations, nongovernmental organisations, citizens' associations protecting the poor etc. who become service users when they interact with health service providers.

WHO supports Member States in the development of national health policies and strategies through technical co-operation, facilitation of national policy dialogue and country-to-country exchange, normative work and facilitation of Member States' participation in international policy frameworks. To improve the effectiveness of public health interventions, a systematic approach to their development is required, as is their rigorous evaluation.⁹ “Good governance is the single most important factor in ending poverty and supporting development.”¹⁰

9 Wight, D., Wimbush, E., Jepson, R. and Do, L. (2016), Six steps in quality intervention development (6SQulD), In J Epidemiol Community Health, 70:520–525.

10 Kofi Annan

Leadership

The world is undergoing rapid economic, environmental, technological and demographic changes, all of which have an impact on health and well-being. Several trends pose significant challenges, some of which might generate reluctance of leaders to align their policies and funding to support change, for example in regard to the real ownership of the shift from hospital and curative care approach to community and preventive care.¹¹ In PHC, for example, issues of access and equity have sometimes reversed progress. The successful reorientation of health systems towards PHC depends on the recognition of the role of health facilities in this process. It is important at all levels of the health pyramid to equip the actors with the soft skills to bring the health system to produce the expected results.

Monitoring mechanisms

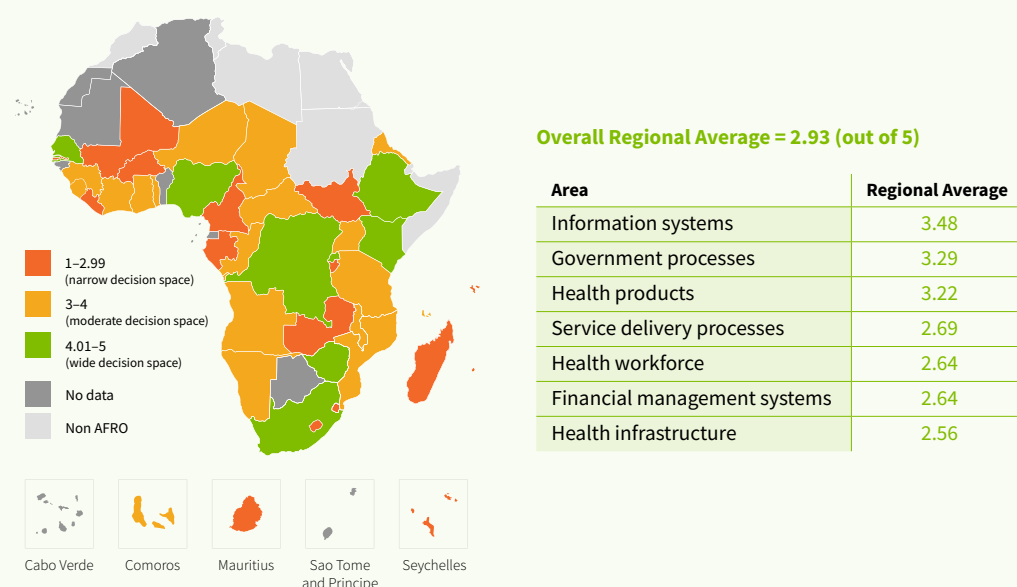
Governance is the implementation of a set of mechanisms such as rules, standards, protocols, conventions, contracts etc. to ensure coordination of stakeholders in an organisation, with each holding a piece of the power, in order to make consensual decisions and launch concerted actions. It calls for management autonomy in the organisation of care, in the management of people and in the management finances.

The legitimacy of governance will be recognised if it succeeds in making the strategic choices, operating methods and family support missions more legible and transparent in the care trajectory and in the follow-up results. In most countries in the Region, health plans and policies have a monitoring and evaluation framework that defines the objectives, associated indicators, baselines and targets to be achieved per period. These frameworks clearly indicate the plans' review periods, whether they are internal or external. While for most countries the review process is a major exercise, the changes expected as a result of it, whether they are structural or conjunctural, are generally few or not implemented, except for the interventions linked to vertical programmes, which most often benefit from external or specific funding. In addition, detailed analyses of strategies developed for specific health problems generally suffer in monitoring and evaluation from a lack of strategic alignment with the national health strategy. In effect, parallel data collection systems are created that weaken the national system and in all cases fail to produce quality information for decision-making.

11 WHO and UNICEF (2018)

Subnational level decision-making space

Figure 4.2.2. Subnational level decision-making space in the WHO African Region, 2022, WHO/AFRO



The Regional Office conducted a survey in March 2022 with an agreed understanding of the amount of decision space a manager has to carry out the different actions needed across the health system. This covered each of the seven elements of investment in a health system: (i) health workforce, (ii) health products, (iii) health infrastructure, (iv) governance processes, (v) service delivery processes, (vi) health information systems, and (vii) health financing systems. Participants were asked to rate the amount of decision space a subnational unit manager has for each of these actions on a scale of 1–5, where 1 was for narrow and 5 for wide. A narrow decision space indicated that decision-making about the action in question was primarily the responsibility of another institution, which could have been another government department, the ministry of health etc. A moderate decision space indicated that decision-making about the action in question was largely shared equally with another institution outside the subnational unit. A wide decision space was associated the decision-making about the action in question lying primarily with the sub-national unit. Decision space analysis reflects the amount of flexibility that a health manager has in deciding on management actions.

4.3 Health information

Civil registration coverage of births (%)

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Completeness of birth registration (%)

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Death registration

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BOX 3. Civil registration and vital statistics in the Region

Many countries do not compile their annual data derived from civil registration and therefore cannot always measure the degree of completeness of registration in their system. The United Nations report estimates that in 2015 only half of the countries in the Region reported birth registrations on time. The rates of birth registration and their completeness in countries in the Africa Region vary widely and range from countries that register and complete 2% of their births to those that cover almost all births. Birth registration completeness level in the Region is below 60%, but it has been improving in recent years. Nearly 30% of the countries do not cover 50% of the births occurring during the year in their territory. Only four countries register more than 90% of their births. Few countries centralize their death register. Only four countries achieve a completeness of 80%, which is a satisfactory level.

The registration completeness of deaths is much lower than that for births and only one in three deaths is registered.

Civil registration is defined by the UN (2001) as “the continuous, permanent, compulsory and universal recording of events and their characteristics relating to the population, provided for by decrees or regulations, in accordance with the laws of a given country”. This refers to births, deaths, marriages and divorces, but not just their facts but also their characteristics. It is a matter of defining these concepts and translating them into the legislation of the country, because a birth, for example, is the culmination of a pregnancy, which is assumed to have lasted 9 months on average and for which the cohabitation between the mother and her future child must be recognised. In the event of the death of the child and depending on the length of gestation, the identity of the mother, whose parity can have an important impact on her life and her community, should be recorded. It is also right to attribute a name or to grant a burial to the fetus or the baby and to allow the family to grieve.

The most important element is that these civil status records do not only open up rights for the child or his or her family but also strengthen the capacity of the countries to plan. In the WHO African Region it is imperative to act as close as possible to the location of the event. This is also about creating conditions and incentives for the community to make the declarations and it should involve all the local, community and traditional religious authorities in the process by using pedagogy and appealing to their sense of responsibility.

Percentage of facilities using patient records or unique patient ID numbers

Only Liberia and Ghana responded on this indicator on the functional facility/community/patient reporting system in place that fitted certain key criteria. But several countries in the Region are using or piloting various patient data collection solutions either specifically for certain diseases, for example HIV/AIDS, TB, etc., or in specific areas as part of the implementation of projects. What is lacking the most is the implementation of concerted action at the national level for greater impact, so health systems are limited to solutions with a small geographical or modular scope, which makes it difficult to have data that can be used for national planning. It is, therefore, important for the countries in the Region to not only have genuine digital health start-ups, but also to have realistic and pragmatic operational plans, including an interoperability framework that will enable the construction of a genuine national data architecture.

Patient information is sensitive data.¹² When dealing with an individual patient's data, it is important to identify specific information so that the patient can be uniquely and reliably referenced, even without sophisticated means. Clinically, without the ability of health professionals to properly link a patient to his or her medical record, lives will be lost and medical errors will continue to occur unnecessarily. There is a real need to build a follow-up system from the ground up that will be the most efficient for the professionals, who must be trained and made aware of the global vision of health. Patient records exist almost in all the countries but they are sometimes poorly standardised, incomplete and limited, but they need to be improved and used to evaluate and strengthen the health systems.

Effective surveillance system

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Existence of national e-health strategy

Table 4.3.1. Countries with an e-Health strategic plan or policy in the WHO African Region, 2005–2019, WHO

Year	Country	Year	Country	Year	Country	Year	Country
2005	Lesotho	2011	South Sudan	2016	Burkina Faso	2018	Benin
	Mauritania	2012	Gambia		Eswatini		Ethiopia
2007	Congo		Zimbabwe		Kenya		Rwanda
2009	Mozambique	2013	Chad		Liberia		Senegal
2010	Angola		Mali	2017	Comoros		Sierra Leone
	Botswana		Togo		Gabon	2019	Nigeria
	Ghana	2014	DR Congo		Malawi		South Africa
	Mauritius	2015	Guinea		Uganda		UR Tanzania
	Namibia		Madagascar		Zambia	2020	Cameroon
2011	Burundi		Nigeria				

To help the countries in developing their eHealth action plans, WHO developed a comprehensive and detailed guide¹³ aimed primarily at administrations and governmental institutions.

In May 2005, the Fifty-eighth World Health Assembly adopted Resolution WHA58.28 establishing an eHealth strategy for WHO that specifically highlights the necessity of patient information systems, with interoperability, patient confidentiality and security assurance as essential characteristics. Even though several countries in the Region have already developed eHealth plans, their effective implementation is weak, particularly in terms of incorporating an effective governance framework or in defining a genuine interoperability framework. There has been a major boom in digital solutions but these suffer from a lack of standardization.

In 2020, WHO published the *Global strategy on digital health 2020–2025*, which was the result of work with all Member states. The purpose was to promote healthy lives and well-being for everyone, everywhere and at all ages. To deliver on this strategy's potential, national and regional digital health initiatives must be guided by a robust strategy that integrates aspects of financial, organisational, human and technological resources.

¹² WHO (2012) Management of patient information: Trends and challenges in Member States, Based on the findings of the second global survey on eHealth, Global Observatory for eHealth series – Volume 6

¹³ WHO and International Telecommunication Union (2012), National eHealth Strategy Toolkit: Overview

Percentage of deaths with assigned ICD as the underlying cause of death

Table 4.3.2. Countries reporting causes of death with ICD as the underlying cause of death in the WHO African Region, 2005–2019, WHO

Year	Country	Coverage (%)	Year	Country	Coverage (%)	Year	Country	Coverage (%)
1992	Mauritius	100	2002	Seychelles	98.8	2012	Cabo Verde	93
	South Africa	0		South Africa	70.4		Mauritius	100
	Zimbabwe	0	2008	South Africa	92.3	2015	Seychelles	91
1997	Mauritius	99.7	2009	South Africa	91		South Africa	92
	South Africa	0	2010	Mauritius	100	2017	Mauritius	100
2002	Mauritius	99.9	2011	Seychelles	100			

It is important to understand the causes of people's deaths to improve their living conditions. Tracking the numbers of annual deaths makes it easier to assess the effectiveness of health systems and direct resources to where they are most needed. To improve health and reduce death and disability around the world, it is essential to regularly collect and analyse high quality data on deaths and their causes, as well as on disability. Very few countries in the Region have cause-of-death coding with ICD, so that is a major challenge that needs to be addressed to improve health statistics. In most countries, the solution to this problem is multisectoral and requires a great deal of collaboration among health services, civil registry, security and especially the community.

4.4 Service delivery

Patient referral and counter-referral system

Service delivery is the part of the health system at which patients receive the treatment and the supplies they are entitled to. A referral, in the most basic sense, is a written order from the treating physician for a patient to consult a specialist for a specific medical service. It is designed to ensure that the patient consults the right provider for the problem he or she is dealing with. Not getting the necessary referral before consulting a specialist can lead to inadequate illness management and subsequently to higher costs, which would exclude a significant part of the population from the specialist care pathway. The referral process is complex and requires participation of various entities.

Many countries in the Region have referral and counter-referral procedures but often they are not harmonised or updated with the evolution of the health map. And specialization of health facilities does not exclude them from offering basic health services, so a patient who does not benefit from the service offered by lower level health facilities has the choice to go elsewhere. However, some countries with the mutualisation of health risk through health insurance manage to require patients, and generally it is those who do not have the means, to respect a defined care pathway to take advantage of the benefits offered by the programme. Much remains to be done, but this requires a good definition of the health services to be delivered as a priority at each level of care.

Outpatient department utilisation

Outpatient services include medical or paramedical procedures, tests and services that can be provided in a hospital, a doctor's surgery or a health centre. They do not require overnight stay in hospital, special care or additional monitoring and are mostly of short duration. In Africa, ambulatory care is still very hospital centred, yet it is inaccessible to many. Within the objective of UHC, outpatient services must be strengthened and their use encouraged within the overall framework of health care decentralisation to bring services closer to their users, but also their affordability should be ensured. Better equipped, structurally funded and regularly evaluated health centres with trained staff can make the use of outpatient facilities optimal and efficient.

Patient safety

Between 5.7 million and 8.4 million deaths in low-income and middle-income countries each year, or about 15% of the total, are attributable to poor quality care. And 60% of the deaths in health care conditions are due to poor quality of care, while the remaining deaths are due to non-use of the health system. It is estimated that 1.8 billion people, or 24% of the world's population, live in contexts of fragility where it is difficult to provide quality essential health services. A significant proportion of maternal, child and newborn deaths occur in these settings.

The harm caused to patients during care is unacceptable. Patient safety and quality of care are both essential to deliver effective health services and achieve UHC. Investments in patient safety can yield substantial savings. Prevention costs far less than the treatment needed after an injury or a disease. Patient involvement is crucial in improving safety in care. This can reduce the burden of harm by 15%, saving billions of dollars each year.

Ethics

The health sector like other sectors in the WHO African Region is plagued with multiple forms of corruption. Corruption can take many forms in the delivery of health services. It has a negative impact on access to services, compromising the ability of governments to provide health care to citizens. Similarly, the quality of care may be diminished if patients receive unnecessary treatment.¹⁴ Vulnerable populations would be the most affected as they struggle to cope with unofficial or unnecessary payments and may instead choose to forego treatment or seek care from unauthorised providers.

For some analysts, low wages and poor working conditions for health workers are the causes of this corruption, for others it is the broader governance failures in health systems, including the limited monitoring of worker performance and the minimal sanctions issued for misconduct. It may simply be the abuse of power to satisfy greed. While these behaviours exist in all countries, they have vital consequences in the WHO African Region and even more so in low-income countries.

4.5 Health workforce

Health worker density and distribution

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Number of output training institutions

Table 4.5.1. Number and percentage of health training institutions by sector in 39 countries in the WHO African Region, 2018, WHO

	Public		Private for-profit		Private for-profit		Total	
Training institutions	Number (%)		Number (%)		Number (%)		Number (%)	
Medical training institutions	209	–59	111	–31	35	–10	355	–100
Health sciences schools	544	–55	363	–37	84	–8	991	–100
Nursing and midwifery schools/colleges	1 375	–54	877	–34	296	–12	2 548	–100
Total	2 128	–55	1 351	–35	415	–11	3 894	–100

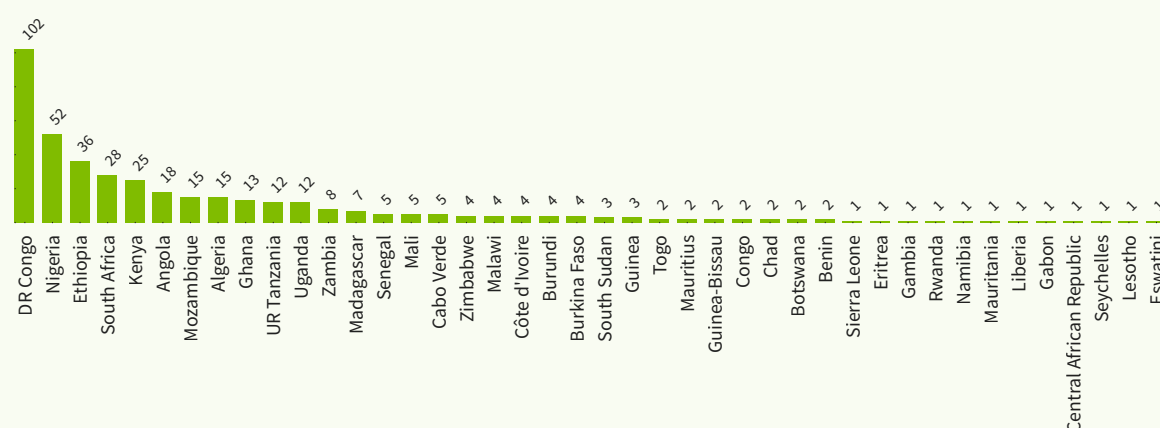
There were 3894 health training institutions in the Region in 2018, of which 2128 (55%) were owned by the public sector, 1351 (35%) by private for-profit sector entities and 415 (11%) by private not-for-profit entities. The public sector had the highest number of training institutions for medical practitioners, dentists and pharmacists, totaling 209 and accounting for 59% of all the medical institutions.

¹⁴ Reported by Transparency International Global Health

The private for-profit and private not-for-profit entities had 111 (31%) and 35 (10%) training institutions, respectively. The public sector had the highest number of both nursing and midwifery training institutions with a total of 1375 institutions (54%) and health sciences schools for other mid-level cadres, making a total of 544 (55%).

The global strategy called for all countries to set up accreditation mechanisms for health training institutions by 2020. The WHO African Regional Framework for the implementation of the Global Strategy on HRH targets 2022 as the year when at least 50% of the Member states will have such accreditation mechanisms in place.

Figure 4.5.2. Number of health training institutions in the WHO African Region (n=39), 2018, WHO/AFRO



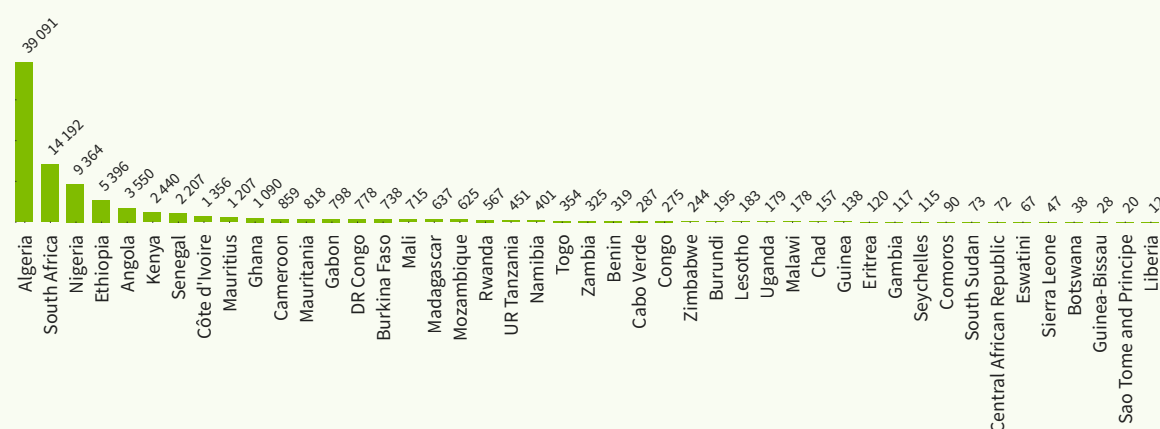
The results of the regional survey show that in 2018, some 31 countries (79%) had an accreditation body for health care training institutions, seven¹⁵ (18%) had none and one country (Chad) was in the process of establishing one. Comoros, Gambia, Equatorial Guinea, Kenya, South Africa and South Sudan did not provide data. The Global Strategy on HRH and the WHO African Regional framework for its implementation emphasises the importance of strengthening the capacity and quality of educational institutions through accreditation of training schools and certification of diplomas awarded to health workers.

Factors relating to training, recruitment, leadership, governance, retention, finance, population growth, morbidity, information, wars, conflicts, insecurity etc. have contributed to the human resource crisis in the WHO African Region. The WHO African Regional framework for HRH highlights the low production of health workers that is due to the inadequate education and training capacity, low number of schools and HRH governance as the main obstacle in building an effective health workforce for achieving UHC in the Region. The regional framework highlights the need to improve working conditions, remuneration and protection of workers. Human resources are reported to consume about 57% of total health expenditure in the Region.

15 Algeria, Benin, Burkina Faso, Congo, Mali, Mauritania and Togo

Specialist doctors

Figure 4.5.3. Number of specialist doctors in the WHO African Region (n=39), 2018, WHO/AFRO

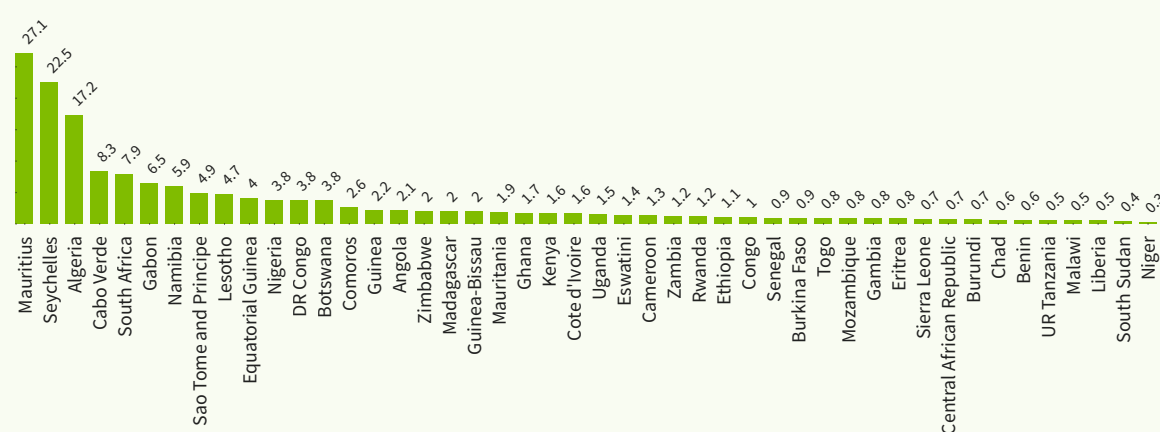


The number of specialist doctors varies greatly from one country to another. However, the important factors in their adequacy are the reference population and their distribution in the countries' territories, because the doctors are usually concentrated in the urban areas in almost all the countries of the Region.

The five countries with the highest numbers of medical specialists are to the 10 most populous countries in the WHO African Region.

Density specialist doctors (per 10 000 population)

Figure 4.5.4. Density of specialist doctors (per 10 000 population) in the WHO African Region, 2020, WHO

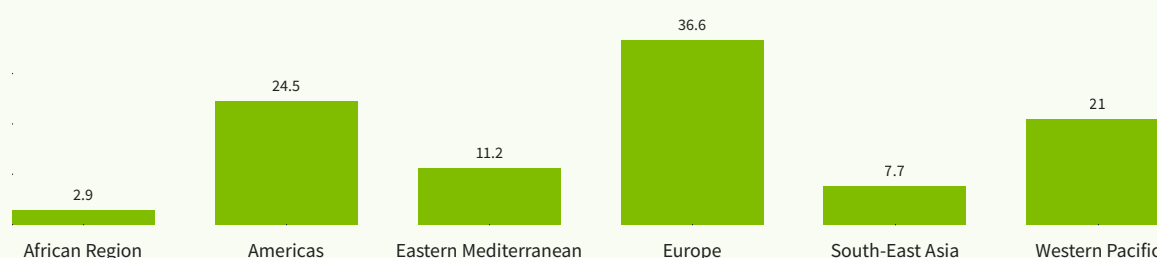


The countries with the highest densities of specialist doctors in 2020 in most cases also had high middle incomes or high incomes. That was the case for six out of the 10 countries with the highest specialist numbers. Among these were the island states of Mauritius, Seychelles, Cabo Verde and Sao Tome and Principe.

Mauritius, Seychelles and Algeria, the three countries with the highest densities of specialists, escape strongly from the following with the densities of 27.1, 22.5 and 17.2 specialist doctors respectively per 10 000 population. The four Member State was Cabo Verde with 8.3 specialist doctors per 10 000 inhabitants. There is a huge need in the Region for countries to train more doctors with the expertise to provide specialised care to patients and to reduce the financial burden of medical evacuations abroad.

Doctors (excluding specialists) per 1000 population

Figure 4.5.5. Density of doctors per 1000 population in the WHO regions, 2020, WHO



In 2020, with 2.9 non-specialist physicians per 1000 inhabitants, Africa had the lowest density of doctors compared with the other regions. Its density was more than 12 times lower than that of the Europe Region, which was 36.6, and two and half times lower than that of South-East Asia, which was 7.7.

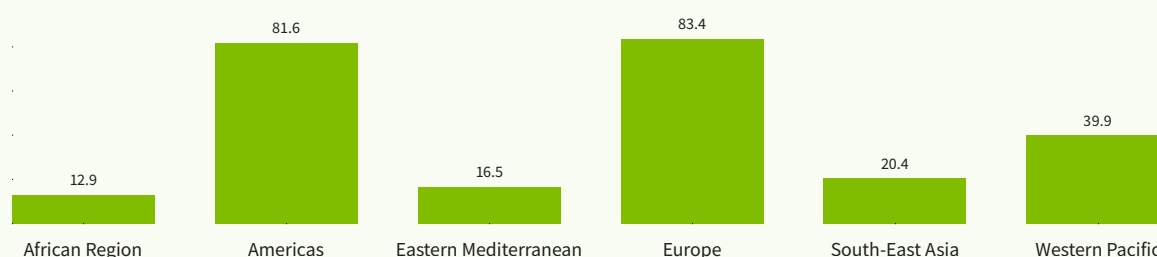
Only 28% of the countries had density levels for non-specialist doctors that were above the regional average, and all the countries with higher incomes were represented in that group. Heading these were Mauritius and the Seychelles, with densities in the range of those of the Americas Region.

The Mo Ibrahim Foundation has highlighted the brain drain of doctors trained in Africa, which is a factor in the rising levels of Africans in hospitals in developed countries in North America and Europe. It is estimated that one African doctor, most often trained in Egypt, Ghana, Nigeria or South Africa, moves to the United States per day. Some sub-Saharan African countries are particularly affected by this haemorrhage of health care workers.

A WHO regional survey that assessed health worker stock and densities found that nine countries, that is Algeria, Botswana, Cape-Verde, Gabon, Lesotho, Mauritius, Namibia, Seychelles and South Africa, had a density of doctors, nurses and midwives that had attained or exceeded the SDG minimum threshold of 2.28, but only four, that is Seychelles, Namibia, Mauritius, and South Africa, had reached or exceeded the SDG target of 4.45.

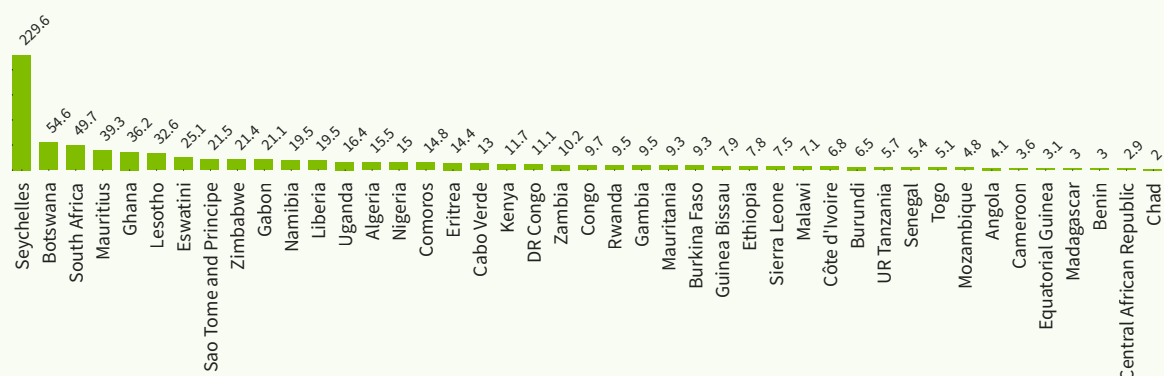
Nursing staff, including midwives and associate nurses

Figure 4.5.6. Nursing staff, including midwives and associate nurses (per 10 000 population) in the WHO regions, 2020, WHO



The situation described above regarding doctor migration is observed for nursing and midwifery professionals as well. Africa has 12.9 nurses per 10 000 inhabitants compared with more than 80 for Europe or North America. Eighteen countries out of the 47 in the Region have density levels for these cadres that are above the Regional average, which has been pulled up by Seychelles' number.

Figure 4.5.7. Nursing staff, including midwives and associate nurses, (per 10 000 population) in the WHO African Region, 2012–2020, WHO



There is one nurse for every 50 people in Seychelles, while in Chad one nurse serves 5000 inhabitants, a level that is 100 times lower than that of Seychelles. In the WHO African Region there is a link between the level of resources the countries have and their number of nurses. Seychelles, an archipelago of around a hundred islands in the Indian Ocean with 100 000 inhabitants once had a shortage of health professionals, but by increasing their pay in 2017¹⁶ it made it possible to maintain nurses at the required levels, who are an important link in the work plan for UHC supported by WHO.

16 Seychelles News Agency (2017).

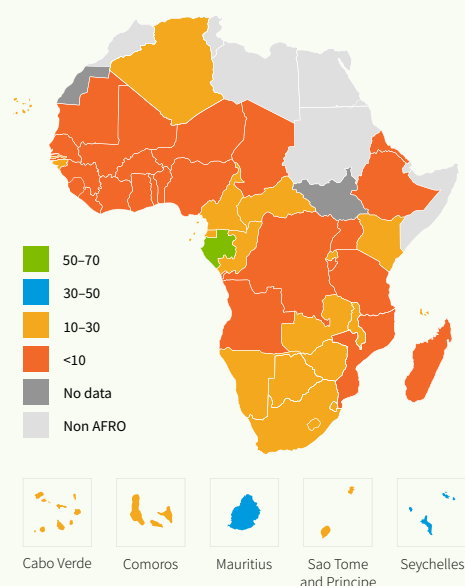
4.6 Health infrastructure

Health facility density and distribution

The differences in the distribution of health services are wide among the countries and within the countries, with higher concentrations of services in urban than rural areas. The density of the population goes hand in hand with the density of the services, as does the density of health services. But the use of the services and the needs of the population for health care services sometimes do not align with these considerations. A WHO multidisciplinary, multicountry, cross-sectional survey in 13 urban, peri-urban and rural sites in 10 African countries¹⁷ representing more than 52% of the Region's population provided people's perspectives on the components of the health system that need to improvement to better meet their expectations. The private sector accounts for 55.9% of the services in urban areas, while in peri-urban areas 67.1% of the services are provided by traditional and spiritual healers. This picture shows that countries need new plans and frameworks to generate more creative and appropriate models for providing quality health care. Also, they need to involve the private sector and civil society and nongovernmental organisations to improve health facility coverage.

Hospital bed density

Figure 4.6.1. Hospital bed density (per 10 000 population) in the WHO African Region, 2004–2017, WHO



Mali and Madagascar have very low rates of 1 and 2 beds per 10 000 inhabitants, respectively, while Mauritius and Seychelles have densities of 30 and 36 beds, respectively. Gabon, with 63 beds per 10 000 inhabitants, leads in the Region. The range in these levels shows the great diversity in the situation among the countries. This difference is also marked within the same country.

Health services are sometimes very far from rural and poorer communities, making it difficult, if not impossible, for them to access care. The availability of medical tools and devices in their facilities, even the most basic care instruments, is not guaranteed.

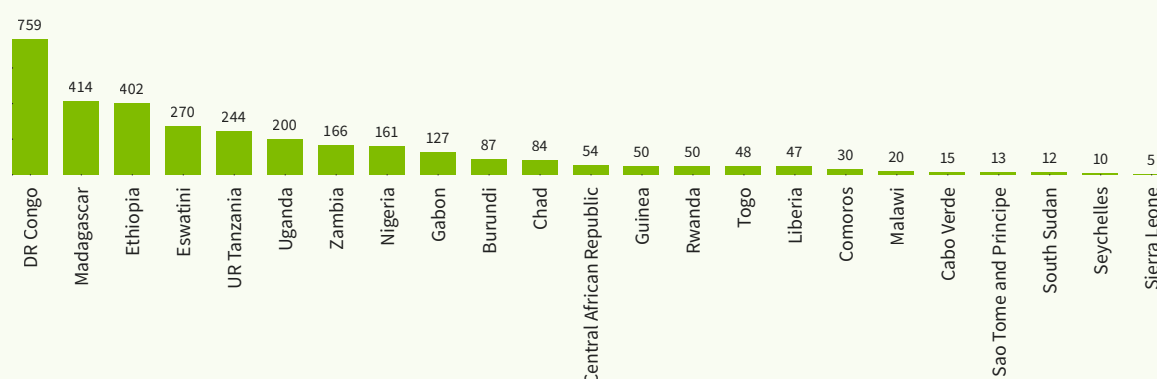
The number of medical beds available for a population affects the efficiency of service provision and the quality of services. A per capita bed rate may be sufficient for one country and grossly inadequate in another owing to the numbers of people needing hospitalisation due to illness. No global standard currently exists

for inpatient bed density relative to the total population. The global average for inpatient bed density is 27 per 10 000 population and the average for the WHO African Region is 10 beds per 10 000 population. The SARA survey suggests benchmarks of 18 and 39 beds for lower-income and upper-income countries, respectively.

17 Algeria, Cameroon, Kenya, Niger, South Africa, Nigeria, Central African Republic, Uganda, Democratic Republic of Congo and Senegal.

Critical care beds

Figure 4.6.2. Number of ICU beds in the WHO African Region, 2020–2021, WHO/AFRO



A high number of hospital beds does not guarantee good standard of care. The experience during the COVID-19 pandemic showed that curative care bed levels offer a vision that does not allow the prediction of the level of preparedness required by different countries for health emergencies. The imperative is to guarantee the availability of hospital beds, in general, and in the intensive care units, in particular, to deal with an influx of cases in the event of an epidemic. It will remain the responsibility of Africa to define the effective protocols to respond to different emergency situations.

Data are lacking for half of the countries. The importance of data collection for this indicator needs to be highlighted for the countries. Some low-income countries are better prepared to deal with emergencies than are others.

When analysing bed density by population size, bed number in general and for each specialty can vary considerably, making comparisons difficult. Furthermore, when looking at smaller administrative units such as districts, it is important to note that the people living there might not use local hospitals for various reasons such as logistics, sociocultural preferences, quality issues etc. In the event of a crisis such as that of COVID-19, it is necessary to keep a dashboard of the absorption capacity of each hospital structure and for each country to facilitate dealing with crises.

Health infrastructure readiness

There are seven areas for investment in the health systems to achieve UHC, which are classified into two categories:

- The tangible inputs that provide essential services, such as the health workforce, health infrastructure and medical products, and technologies.
- The intangible processes needed to support the tangible inputs, including service delivery, governance, information and health financing.

A review of public funding levels for these elements in 18 countries in the WHO African Region shows that an average of 60% of the spending goes to the tangible inputs and 40% to intangible processes. Among the tangible inputs the highest expenditure, that is 39%, goes to medical products, followed by health personnel with 14% of the expenditure, and then infrastructure, including equipment, transport and ICT, with 7%.

The mechanisms for coordinating infrastructure investments are not obvious and many countries have a variety of types of infrastructure with quality and functionality differences, making it difficult to ensure its efficiency and equity. Infrastructure, which includes buildings, equipment, transport and ICT, needs to be planned, maintained and used in a coordinated manner to achieve UHC and the SDGs.

Table 4.6.3. Health infrastructure readiness score in the WHO African Region, latest available year, WHO/AFRO

Year	Country	Value	Year	Country	Value	Year	Country	Value
2010	Tanzania	9.8	2016	Sierra Leone	7.27	2019	Burkina Faso	5.98
2015	Chad	2.02	2017	Mali	5		Kenya	9.77
2016	Côte d'Ivoire	10.73	2018	Mozambique	3.35		Malawi	6.67
	Liberia	6.23		South Sudan	3.74		Namibia	13.3

The overall infrastructure score is extremely low, meaning that infrastructure investments are not adequate to facilitate the achievement of the required system performance. The investment level cannot be explained entirely by the countries' income level. It does not vary significantly between the countries' income groups. Low-income countries appear to have higher per capita levels for hospitals, including rural hospitals, than do countries in other groups. The countries with higher health spending appear to have better infrastructure, as do the less populous countries, although this pattern does not hold true among the Small Island Developing States in the Region.

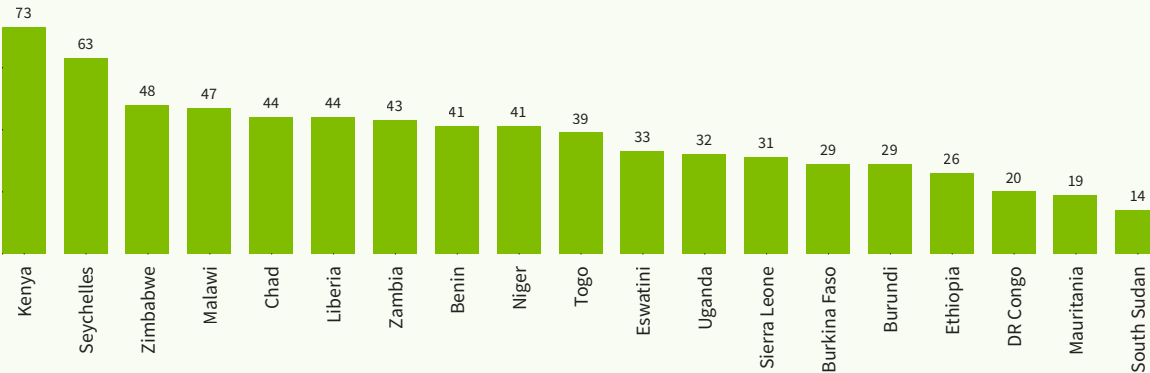
4.7 Health products

Proportion of health facilities that have a core set of relevant essential medicines available and affordable on a sustainable basis

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Essential medicines readiness

Figure 4.7.1. Essential medicines readiness in the WHO African Region, latest available year, WHO/AFRO

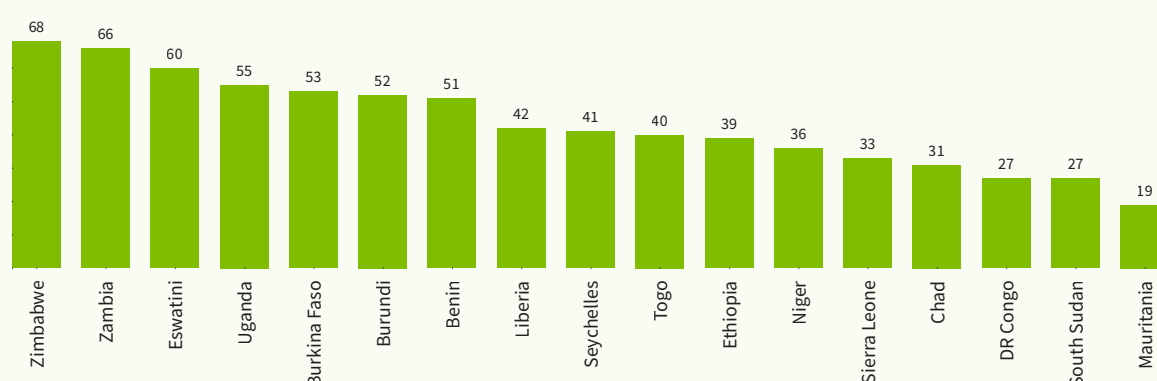


Changes in the economic, sociopolitical and demographic environment, globalisation of trade, especially for of pharmaceutical products, the worsening of poverty, currency fluctuations, emergence of new diseases and the re-emergence of old diseases, resistance to existing therapeutic agents, and irrational use of medicines are placing the already limited pharmaceutical budgets under heavy strain. In this situation, greater importance should be given to the development and implementation of national pharmaceutical policies to guarantee effective improvement of access to essential medicines of recognised quality. WHO is concerned about the equity of access to essential medicines and estimates that more than half of the population in the Region does not have full access to essential medicines. For most countries, production scores for essential medicines remain low, except for Ghana and the Seychelles. In the case of Ghana, innovations in the traditional medicine sector that have improved the quality and effectiveness of traditional medicines and the practice of this discipline, have contributed to good scores on production of essential medicines.

AMA can play an important role in strengthening regulatory oversight and facilitating access to safe and affordable medicines across the continent. It will work towards harmonisation across the continent and will benefit from the lessons learned during the pandemic and the rapid implementation of modern and innovative solutions to tackle the pervasiveness of counterfeit medications offered through dubious channels. The supply and safety of medicines will be ensured with AMA.

Availability of tracer diagnostics

Figure 4.7.2. Availability of tracer diagnostics (% facilities) in the WHO African Region, 2013–2018, WHO/AFRO



Access to diagnostic services is essential. Improving access to health technologies by advancing regulatory convergence across the continent, supporting technology transfer and capacity building is a necessity. Countries with low incomes are at the bottom of the ranking for diagnostic services. Seychelles, which often repatriates patients for certain health procedures, is among the countries in the middle of the ranking despite its high income.

Stock-out of essential products

Drug stock-outs are common in hospitals and pharmacies in many sub-Saharan African countries. These shortages affect populations differently, depending on where they live and how far they are from the hospital or pharmacy, or whether the product is available at the distribution centre.

Innovative methods are needed to improve supply chains, demand and ordering of medicines, communication between facilities and districts, and forecasting of needs. Increased investment in public sector human resources for health could potentially reduce the occurrence of stock-outs. This is also one of the challenges for AMA to tackle.

The SDGs highlight the lack of progress in improving access to and availability of essential health products such as medicines, supplies and equipment in developing countries. Stock-outs can have a significant impact on the delivery of quality health services.

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