World Health Organization
REGIONAL OFFICE FOR Africa

Atlas of African Health Statistics 2018

Universal health coverage and the Sustainable Development Goals in the WHO African Region

Leaving no one behind in AFRICA

Atlas of African Health Statistics 2018: universal health coverage and the Sustainable Development Goals in the WHO African Region

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Message from the Regional Director

When I took office in 2015 as Regional Director, I introduced the Transformation Agenda of the World Health Organization Secretariat in the African Region an ambitious plan to transform the WHO African Region into a results-driven organization able to fully meet the needs and expectations of its stakeholders.

In the aftermath of the Ebola Virus Disease epidemic, WHO needed to refocus on health systems development, primary health care, resilience and health security, all requiring effective intelligence gathering and knowledge generation. Furthermore, there was a critical information gap for effective implementation and monitoring of SDGs interventions in the Region, including progress towards Universal Health Coverage.

Improving health information systems and expanding coverage of quality dependable data in the Region are both key to delivering on the Transformation Agenda. For this purpose, the Atlas of African Health Statistics remains the most comprehensive tool to monitor the health situation in the African Region, provide up-to-date information on the state of health in countries, and serve as a baseline for monitoring progress on internationally agreed targets.

The Atlas is produced by the staff of the African Health Observatory at the Regional Office, with the contributions and active collaboration of all the clusters of the Regional Office and the 47 countries of the WHO African Region. Unlike in the past, the current Atlas includes brief interpretation of the statistics, to give deeper meaning and facilitate understanding of the health sector performance in the Region. I wish to thank all those who contributed to the preparation of the Atlas for their work. I hope Member States and partners will find this Atlas a useful reference source.

Dr Matshidiso Moeti
WHO Regional Director for Africa

Acknowledgements

This edition of the Atlas of African Health Statistics has been prepared by a core team from the Health Systems and Services Cluster of the WHO Regional Office for Africa, under the leadership and guidance of Delanyo Dovlo, the Cluster Director. The core team was coordinated by Benson Droti and included Monde Mambimongo Wangou, Anaclet Geraud Nganga Koubemba, Harris Benito Koubemba Mona, Davy Audrey Liboko Gnekabassa and Berence Relisy Ouaya Bouesso. It was reviewed by Humphrey Karamagi, Hongyi Xu, Grace Kabaniha, Derrick Muneene, Jadice Achille Mandimba, Ghislain Giscard Sabou Ngoma and Yves Turgeon. Mayur Mandalia Lalji and Martin Ota in particular did a comprehensive review of the Atlas.

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Abbreviations and acronyms

AARR	Average annual rate of reduction
AFRO	Regional office for Africa
AIDS	Acquired immunodeficiency syndrome
ANC	Antenatal care coverage
ANR	African Nutrition Report
ARI	Acute respiratory infection
ART	Antiretroviral therapy
ARV	Antiretroviral
BCG	Bacillus of Calmette and Guerin
BMI	Body mass index
CDR	Case detection rate
CI	Confident interval
DESA	Department of Economic and social affairs
DHS	Demographic and health surveys
DOTS	Directly observed TB treatment strategy
DTP	Diphtheria, Tetanus and Pertussis
FRH	Family and reproductive health
GDP	Gross domestic product
GNI	Gross National Income
HCT	HIV counselling and testing
HIV	Human immunodeficiency virus
HSS	Health system strengthening
IQR	Interquartile Range
ITN	Insecticide treated net
ITU	International Telecommunication Union
LMICs	Lower-middle income countries
MCV	Measles-containing vaccine
MDG	Millennium development goals
MICS	Multiple indicator cluster survey
MMR	Maternal mortality Ratio
NCDs	Noncommunicable diseases
NTDs	Neglected tropical diseases
OOPS	Out-of-pocket expenditure as percentage of total health expenditure
PMTCT	Prevention of mother-to-child transmission
PvtHE	Private health expenditure
SARA	Service Availability and Readiness Assessment
SDG	Sustainable development goals
STEPS survey	STEPwise approach to Surveillance
TB	Tuberculosis
THE	Total health expenditure
UHC	Universal health coverage
UN	United Nations
UNICEF	United nations children's fund
WHO	World Health Organization

Overview of UHC and the SDGs

Indicator	Baseline value (2015)	Current value (Year)	2030 Projected value[1]	Target (2030)	Colour code[2]	Comment
Target 3.1. Reduce the global maternal mortality ratio to less than 70 per 100 000 live births						
Maternal mortality ratio (per 100 000 live births)	542	No data	347	<70		The trend during the MDG period was towards substantial decline but the pace is not fast enough to meet the SDG target
Proportion of births attended by skilled health personnel	54	No data	64	>90		The pace is not fast enough to meet the SDG target
Target 3.2. End preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1000 live births and under-five mortality to at least as low as 25 per 1000 live births						
Under-five mortality rate (per 1000 live births)	81	No data	43	25		The trend during MDG period is towards substantial decline but pace is not enough to meet the SDG target
Neonatal mortality rate (per 1000 live births)	28	No data	19	12		The trend during MDG period is towards substantial decline but pace is not enough to meet the SDG target
Infants receiving three doses of hepatitis B vaccine (%)	76	No data	82	100		The trend during MDG period is towards substantial decline but pace is not enough to meet the SDG target
Target 3.3: End the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases						
HIV incidence (per 1000 population)	1.6	No data	0.7			
Proportion of HIV positive who are on treatment (%)	57	No data	Over 100	100		The trend during MDG period is towards substantial decline and pace is enough to meet the SDG target
Malaria incidence (per 1000 population)	165	No data	80	16.5[4]		The pace is not enough to meet the SDG target
Tuberculosis incidence (per 1000 population)	2.75	No data	1.70	0.6		The trend during MDG period is towards substantial decline but pace is not enough to meet the SDG target

1 Projected value is based on the average annual rate of change during the MDG era
2 Colour codes: Red: No or very slow progress, or decline in performance; Orange: Good progress but pace not enough to meet target; Green: Good progress; pace is enough to meet or surpass SDG target
3 UHC indicator
4 90% reduction in case incidence rate
5 80% reduction in the TB incidence rate

Indicator	Baseline value (2015)	Current value (Year)	2030 Projected value[1]	Target (2030)	Colour code[2]	Comment
TARGET 3.4: Reduce by one third premature mortality from noncommunicable diseases through prevention and treatment and promote mental health and well-being						
Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease	20.9	No data	19.74	10.45		The trend during MDG period is towards substantial decline but pace is not enough to meet the SDG target
Suicide mortality rate	8.8	No data	7.44	7.92		The trend during MDG period is towards substantial decline and pace is enough to meet the SDG target
TARGET 3.5: Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol						
Adults ≥18 years with raised blood pressure (%)	30	No data				
Adults ≥18 years with raised fasting blood glucose (%)7	9	No data				
Tobacco (non-use) (% of people ≥15)7	75.3 (Male) 97.7 (Female)	No data				
TARGET 3.6: halve the number of global deaths and injuries from road traffic accidents						
Road traffic mortality rate (per 100 000 population)	26.6			Reach 50% of number of global deaths		
Health system						
Out of Pocket Expenditure (OOPS) as % of Private Health Expenditure (PvtHE)7	60	No data	83.8	Reduce the Out of Pocket Expenditure		
Private Health Expenditure (PvtHE) as % of Total Health Expenditure (THE)7	52.2	No data	47.9	Reduce Private Health Expenditure		
Health-worker density (1000 population)	12.7	No data				

1 Projected value is based on the average annual rate of change during the MDG era
2 Colour codes: Red: No or very slow progress, or decline in performance; Orange: Good progress but pace not enough to meet target; Green: Good progress; pace is enough to meet or surpass SDG target
3 UHC indicator
4 90% reduction in case incidence rate
5 80% reduction in the TB incidence rate

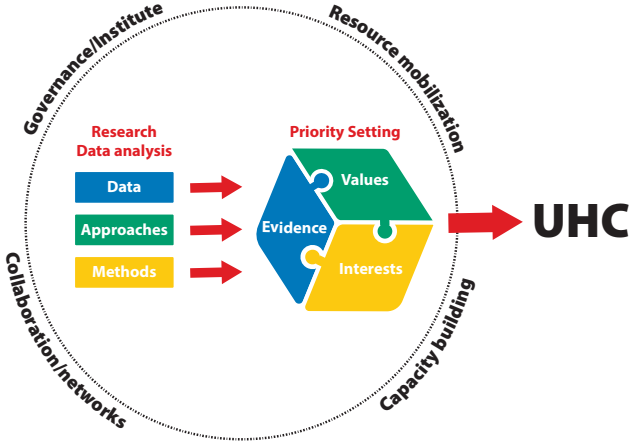
Introduction, objectives and methods

The 2018 edition of the *Atlas of African health statistics* describes the health situation and trends in the WHO African Region. Analysis is based on standardized data from the World Health Organization and other agencies of the United Nations, such as UNICEF and the World Bank. The focus is on the progress and performance of key health indicators during the last 5–10 years. Current or disaggregated data were not available for some of the indicators, which underscores the urgent need to strengthen data systems to improve the availability and quality of health data in the African Region.

The progress and performance of each indicator is presented for the Region and by country and, when relevant, by other equity stratifiers such as age and sex. Disaggregation of results by country and equity stratifiers was done to identify those countries and key population groups that require special efforts to achieve parity and improve the national and Regional averages.

Given that the African Region did not meet most of the Millennium Development Goals (MDGs), special attention was paid to the UHC and SDG indicators. Wherever possible, linear projections based on the average annual rate of change were done to predict future performance and provide guidance on how much more needs to be done in each country to meet the UHC and SDG targets. This included computation of annual targets for each indicator and for each country, which are useful guides for Member States to set their own targets during the development of national and disease-specific health strategies and plans. Comparison with other WHO regions was done to indicate where the African Region stands in relation to them and global results.

The Atlas is divided into 11 sections: Chapter 1 provides a description of the regions of the world where WHO operates to improve health globally. Chapter 2 is a tabular presentation of the progress and performance of the UHC and SDG indicators, together with a prediction



of future performance of each indicator. Chapter 3 looks at mortality and morbidity statistics, focusing on average and healthy life expectancy at birth, mortality rates among children and adults, most common causes of death, and most common diagnoses for utilization of outpatient and inpatient services. Chapter 4 presents statistics for maternal and reproductive health, focusing on maternal mortality and on coverage of interventions for maternal and reproductive health. Chapter 5 presents statistics for child health (immunization and care seeking) and nutrition (stunting, maternal anaemia, low birth weight, overweight, breastfeeding and wasting). Chapter 6 focusses on adolescent health services. The burden and impact of communicable and noncommunicable diseases are presented in Chapters 7 and 8, respectively. As neglected tropical diseases have become a key priority for WHO, particular attention was drawn to assessing the burden of neglected tropical diseases in the Region; however, this analysis was hampered by the lack of data in most of the countries. Chapter 9 focuses on health emergencies, Chapter 10 on health systems and services and Chapter 11 on social determinants of health.

Chapter 1. The WHO African Region

The African Region is one of the six regions of the World Health Organization (Fig. 1). It has over one billion inhabitants, which is about 14% of the world's population, spread across 47 countries. The Region has an estimated annual population growth rate of 2.6%, much higher than the rate in the Eastern Mediterranean (2.0%), South-East Asia (1.3%), Americas (1.1%), Western Pacific (0.7%) and European (0.3%) regions. In 2015, most of the population in the African Region (95%) was less than 60 years old (Fig. 2).

Nigeria is the most populous nation in the Region (Table 1), with slightly over 186 million people, followed by Ethiopia (101 million) and the Democratic Republic of the Congo (79 million). However, when population density (number of people per square kilometer) is considered, Nigeria is the sixth most densely populated country in the Region, with 202.4 people per square kilometer, after Mauritius (626), Rwanda (451), Burundi (415), Comoros (361) and Seychelles (213).

According to the 2016 World Bank classification, 27 of the countries in the Region (57.4%) are low income countries, 13 (27.7%) are lower-middle income countries, six (12.8%) are upper middle income countries, and one country, Seychelles, is a high income country (Table 2).

Figure 1 WHO regions

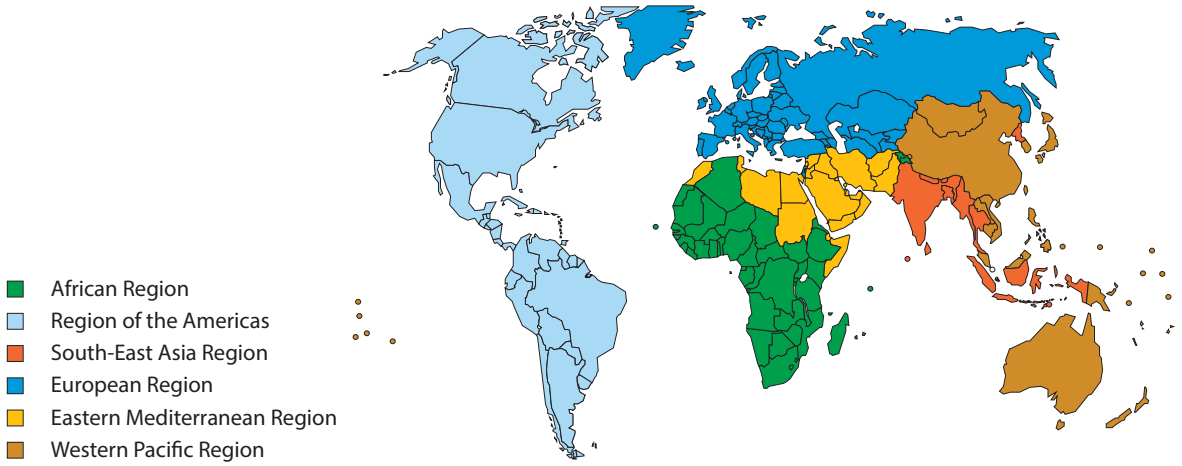


Table 1 Population size and density in the African Region

	Population density (per square kilometre)	Population size (in thousands)
Algeria	17.0	40 376.0
Angola	20.7	25 831.0
Benin	99.2	11 166.7
Botswana	4.0	2 303.8
Burkina Faso	68.0	18 633.7
Burundi	415.1	11 552.6
Cabo Verde	130.7	527.0
Cameroon	50.3	23 924.4
Central African Republic	8.0	4 998.5
Chad	11.3	14 496.7
Comoros	361.1	807.1
Congo	13.9	4 741.0
Côte d'Ivoire	72.1	23 254.2
Democratic Republic of the Congo	34.1	79 722.6
Equatorial Guinea	31.0	869.6
Eritrea	45.5	5 351.7
Ethiopia	92.6	10 1853.3
Gabon	6.6	1 763.1
Gambia	181.9	20 55.0
Ghana	117.5	28 033.4
Guinea	52.7	12 947.1
Guinea-Bissau	52.3	1 888.4
Kenya	81.4	4 7251.4
Lesotho	71.2	2 160.3
Liberia	41.4	4 615.2
Madagascar	42.4	24 915.8
Malawi	149.8	17 749.8
Mali	14.6	18 134.8
Mauritania	4.0	4 166.5
Mauritius	626.2	1 277.5
Mozambique	36.0	28 751.4
Namibia	3.0	2514.0
Niger	16.3	20 715.3
Nigeria	202.4	18 6987.6
Rwanda	451.2	11 882.8
Sao Tome and Principe	0.2	194.4
Senegal	79.2	15 589.5
Seychelles	213.2	97.0
Sierra Leone	91.9	6 592.1
South Africa	45.1	54 978.9
South Sudan	19.8	12 733.4
Swaziland	75.1	1 304.1
Togo	132.0	7 496.8
Uganda	167.3	40 322.8
United Republic of Tanzania	58.2	55 155.5
Zambia	22.2	16 717.3
Zimbabwe	40.9	15 966.8
African Region	40.4	1 015 367.8

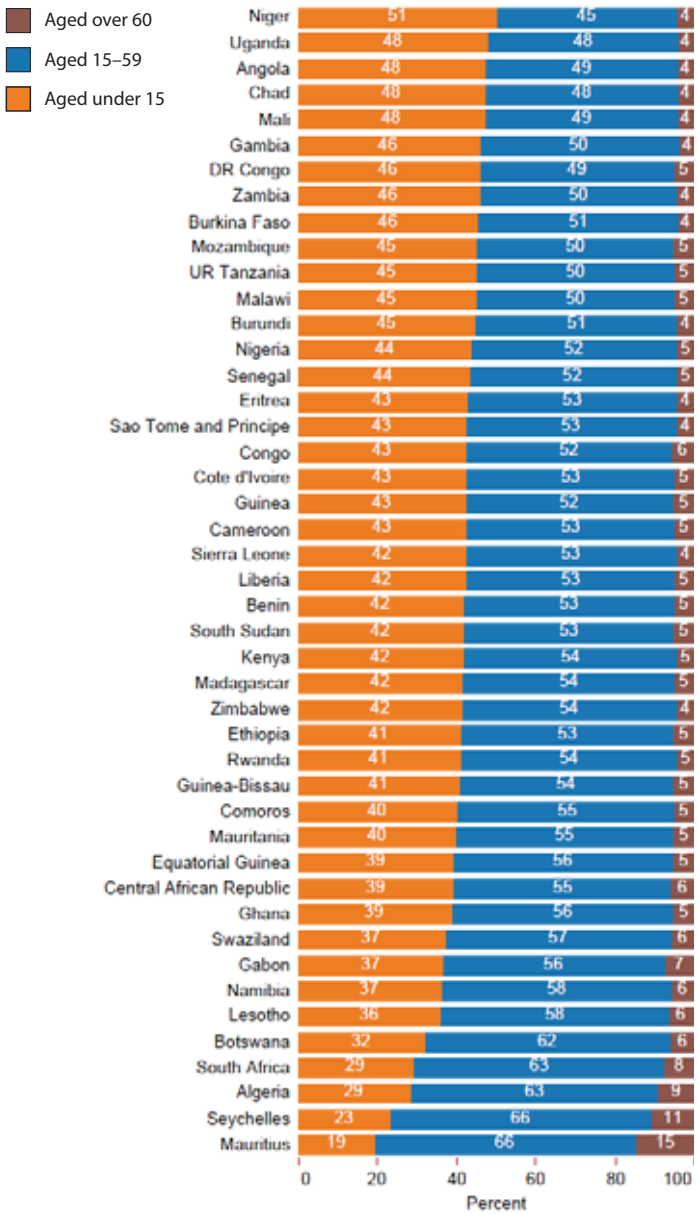
Data source: WHO, 2016

Table 2 African countries by income level

High income (GNI/capita >12 476)	Seychelles
Upper middle income (GNI/capita 4036–12 475)	Algeria, Botswana, Equatorial Guinea, Gabon, Mauritius, Namibia, South Africa
Lower-middle income (GNI 1026–4035)	Angola, Cabo Verde, Cameroon, Congo, Côte d'Ivoire, Ghana, Kenya, Lesotho, Mauritania, Nigeria, Sao Tome and Principe, Swaziland, Zambia
Low income (GNI/capita <1025)	Benin, Burkina Faso, Burundi, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Eritrea, Ethiopia, The Gambia, Guinea, Guinea-Bissau, Liberia, Madagascar, Malawi, Mali, Mozambique, Niger, Rwanda, Senegal, Sierra Leone, South Sudan, Togo, Uganda, United Republic of Tanzania, Zimbabwe

Data source: The World Bank, 2016

Figure 2 Population distribution (%) by age



Data source: WHO, 2015

Chapter 2. Mortality and morbidity

2.1 Average life expectancy at birth

WHO estimates show that the average life expectancy at birth in the African Region is low but increasing, albeit slowly. This increase is driven by declines in adult and child mortality.

During the period 2010–2015, the average life expectancy at birth in the African Region (both sexes) increased by 5.1%, from 57 years in 2010 to 60 years in 2015. The average life expectancy for females is about 4 years higher compared to males. By 2015, the female life expectancy was estimated to be 61.8 years compared to 58.3 for males.

During the same period, the average life expectancy at birth for females increased by 5.7% from 58.4 years in 2010 to 61.8 years in 2015 (average annual increase of 0.7 years), and for males increased from 55.6 years in 2010 to 58.3 years in 2015 (average annual increase of 0.6 years) (Fig. 4).

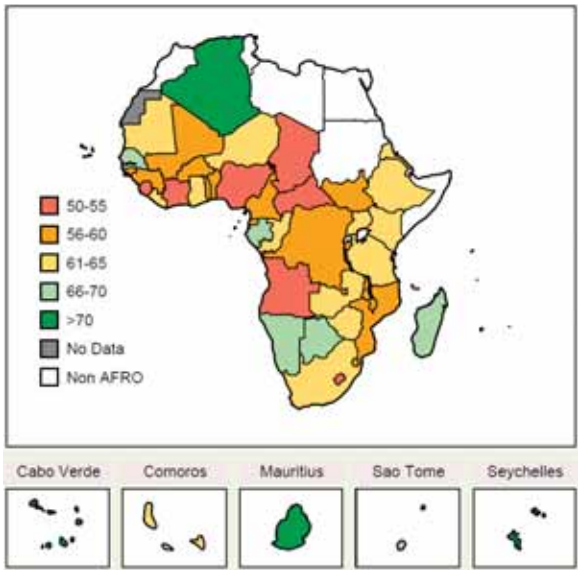
There are substantial country differences in the average life expectancy at birth (Fig. 3). In 2015, Sierra Leone had the lowest average in the Region (50.1 years), followed by Angola (52.4 years), Central African Republic (52.5 years), Chad (53.1 years), Côte d'Ivoire (53.3) and Nigeria (54.5 years), which are much lower than the average life expectancy in Algeria (75.5 years), Mauritius (74.6 years) and Cabo Verde (73.3 years).

Compared to other WHO regions, the average life expectancy at birth in the African Region is much lower: people in the Eastern Mediterranean and South-East Asia live at least 9 years longer, and those in the Americas, Europe and Western Pacific live at least 17 years longer than those in the African Region.

When the healthy life expectancy at birth is considered, that is, the number of (Fig. 5) years a person lives in a healthy state, the life expectancy at birth in the African Region drops by about 14%. In 2015, it was 52.3 years, which represents a 6.5% increase from 49.5 years in 2012. As was the case with the average life expectancy at birth (Fig. 6), the healthy life expectancy at birth in Sierra Leone was lower than elsewhere in the African Region.

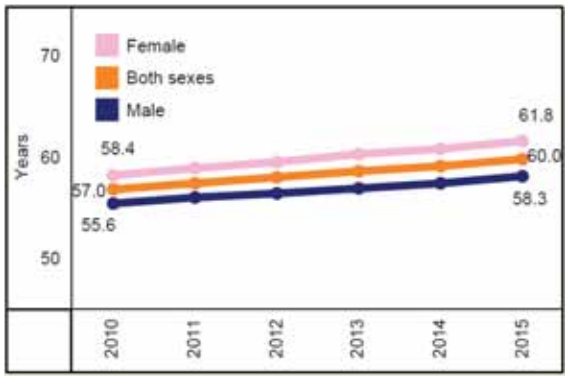
Compared to the other WHO regions (Fig. 7), the African Region had the lowest healthy life expectancy at birth in 2015 (52.3 years), which is about 8 years lower than Eastern Mediterranean and South East Asia, and about 16 years lower than the healthy life expectancy in the Americas, Europe and Western Pacific Regions.

Figure 3 Average life expectancy at birth in years in the African Region



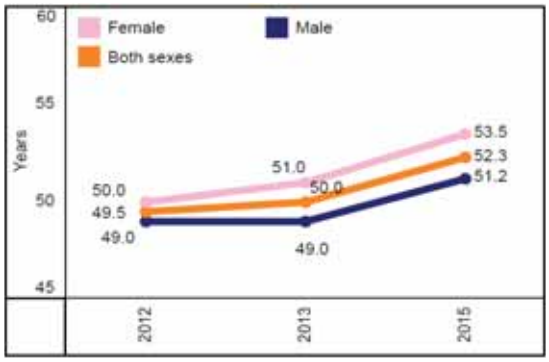
Data source: WHO, 2015

Figure 5 Trend in average life expectancy at birth in years in the African Region



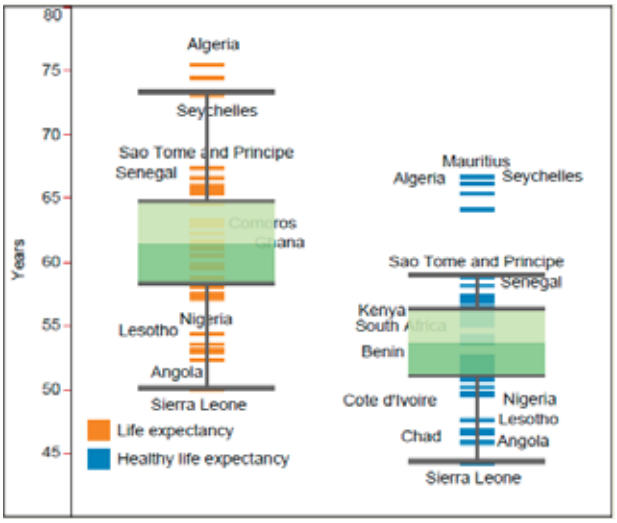
Data source: WHO, 2010–2015

Figure 4 Trend in average healthy life expectancy at birth in years in the African Region



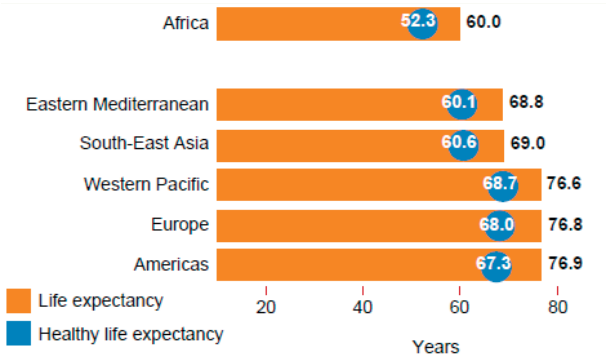
Data source: WHO, 2010–2015

Figure 6 **Average life expectancy and healthy life expectancy at birth in years in the African Region**



Data source: WHO, 2015

Figure 7 **Average life expectancy at birth in years by WHO regions**



Data source: WHO, 2015

2.2 Crude birth and death rates

The crude birth and death rates in the African Region have decreased steadily, with the pace of decline faster for crude death rate than for crude birth rate (Fig. 8). The crude birth rate and crude death rate, respectively, refer to the number of births and deaths occurring in a population in a given year per 1000 mid-year total population. During the period 2000–2015, the crude birth rate per 1000 population declined by 13.3%, from 39.2 in 2000 to 34.3 in 2015 (0.9% average annual rate of decline) (Fig. 9). Meanwhile, the crude death rate per 1000 population declined by up to 43.1% in the same period, from 13.7 in 2000 to 8.9 in 2015 (2.9% average annual rate of decline) (Fig. 10). The pace of decline of the crude birth rate during the last quinquennium (2011–2015) was faster (1.3% average annual rate of decline) compared to the quinquennium ending 2010 (0.8% average annual rate of decline). In contrast, the pace of decline of crude death rate was faster during the 2006–2010 quinquennial period (3.6% average annual rate of decline) compared to the period 2011–2015 (2.9% average annual rate of decline).

Intercountry differences in crude death and crude birth rates are fairly large (Table 4). In 2015, for instance, the crude birth rate per 1000 mid-year total population in Niger was higher than elsewhere in the Region (48.4), followed by Chad (43.9), Mali (43.2), the Democratic Republic of the Congo (42.8) and Burundi (42.7). Mauritius had the lowest crude birth rate per 1000 mid-year total population (10.1) followed by Seychelles (17.0), Cabo Verde (21.1), South Africa (21.3) and Algeria (23.9). During the period 2010–2015, the crude birth rate declined in all the countries except Seychelles, with the biggest decline in Mauritius (by up to 17.2%), followed

Figure 8 **Trends in the crude birth and death rates per 1000 population in the African Region**

Data source: WHO, 2010–2015

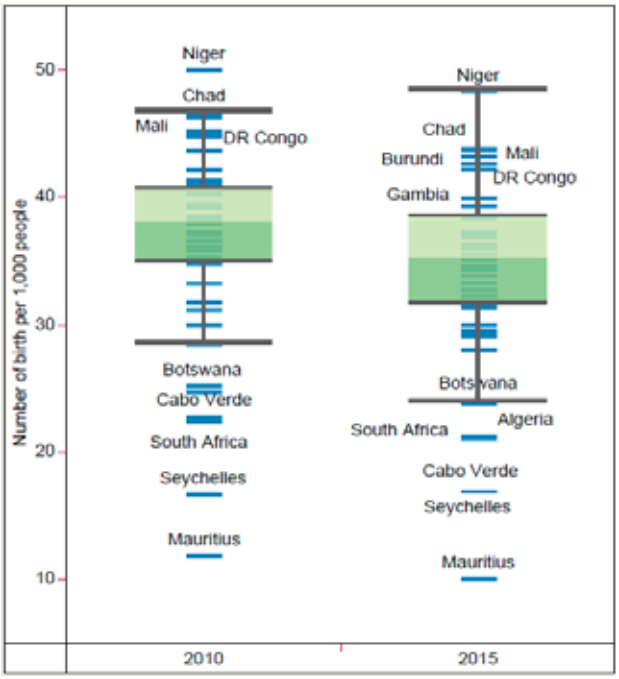
by Rwanda (10.5%), Sierra Leone (10.5%), Kenya (9.9%) and Eritrea (8.9%). The crude birth rate in Seychelles increased by 1.2%.

Similarly, in 2015, the crude death rate per 1000 mid-year total population in the Central African Republic was higher than elsewhere in the Region (14.1), followed by Chad (13.2), Sierra Leone (13.0), Lesotho (12.9) and Nigeria (12.8). Algeria had the lowest crude death rate (4.8) followed Cabo Verde (5.6), Kenya (5.8), Senegal (6.1) and Rwanda (6.1).

During the period 2010–2015, the crude death rate declined in all the countries except Mauritius, Seychelles and Algeria, with the biggest decline in Zimbabwe (by up to 34.3%) followed by Botswana (by 28.4%), Namibia (28.2%), Malawi (27.2%) and South Africa (25.2%). The crude death rates in Mauritius, Seychelles and Algeria increased by 5.3%, 1.3% and 0.4%, respectively.

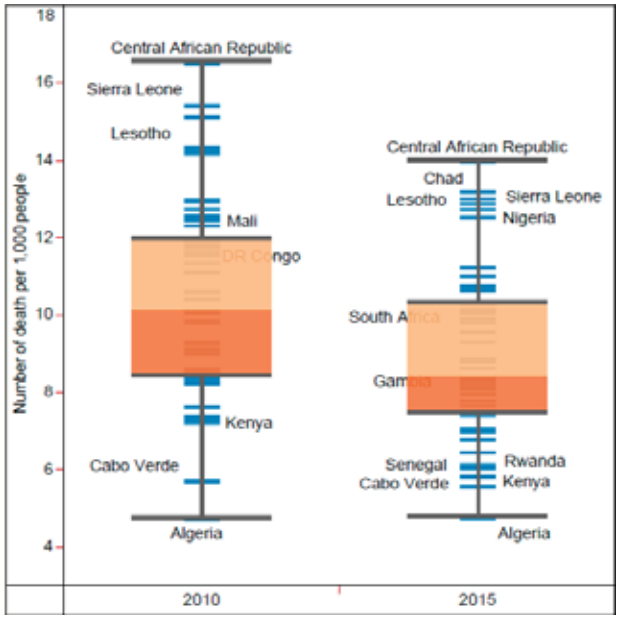
Compared to the other WHO regions (Table 3), the African Region accounted for 16.4% of the total global deaths in 2015, which is slightly lower than the 18.9% in the year 2000. In 2015, the African Region had the second highest crude death rate (9.3 per 1000 population) after Europe (10.2 per 1000 population).

Figure 9 Crude birth rate per 1000 population in the African Region



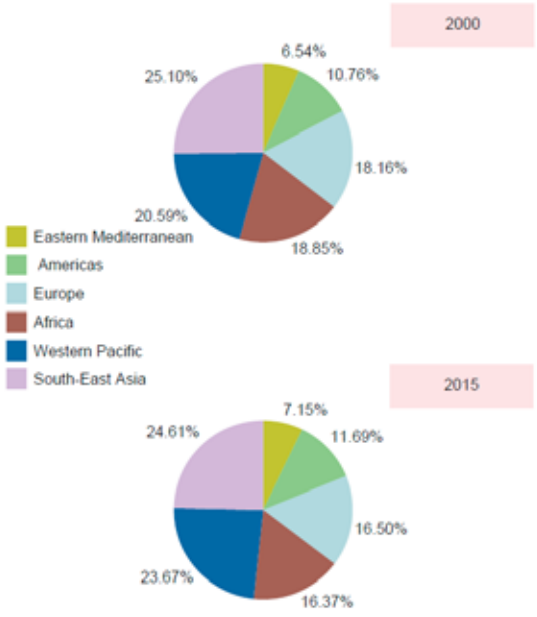
Data source: WHO, 2010 and 2015

Figure 10 Crude death rate per 1000 population in the African Region



Data source: WHO, 2010 and 2015

Figure 11 Crude death rate per 1000 population in the African Region



Data source: WHO, 2010 and 2015

Table 3 Crude death rate per 1000 population by WHO region

	2000	2015
Europe	10.9	10.2
Africa	14.7	9.3
South-East Asia	8.3	7.2
Western Pacific	6.3	7.2
Americas	6.7	6.7
Eastern Mediterranean	7.3	6.2

Data source: WHO, 2000 and 2015

Table 4 Crude birth and death rates per 1000 mid-year total population

	Crude birth rate per 1000 mid-year total population						
	2010	2011	2012	2013	2014	2015	% rate of change
Algeria	24.8	25.1	25.1	24.9	24.5	23.9	-3.5
Angola	45.3	44.7	44.1	43.4	42.9	42.3	-6.8
Benin	39.3	38.9	38.6	38.2	37.8	37.4	-4.8
Botswana	25.3	25.2	25.1	24.9	24.5	24.1	-4.6
Burkina Faso	42.3	41.7	41.1	40.5	40	39.4	-7
Burundi	43.7	43.7	43.5	43.3	43	42.7	-2.5
Cabo Verde	22.9	22.5	22.1	21.7	21.4	21.1	-8
Cameroon	39.3	38.9	38.4	37.9	37.4	36.8	-6.5
Central African Republic	38	37.7	37.3	37	36.5	36.1	-5
Chad	46.7	46.1	45.5	45	44.4	43.9	-6.2
Comoros	35.2	34.9	34.6	34.2	33.8	33.3	-5.5
Congo	38	37.6	37	36.5	35.9	35.2	-7.6
Côte d'Ivoire	38.2	38	37.8	37.6	37.3	37.1	-2.9
Democratic Republic of the Congo	44.9	44.5	44.2	43.8	43.3	42.8	-4.7
Equatorial Guinea	37.4	36.9	36.3	35.7	35.2	34.6	-7.7
Eritrea	35.9	35.4	34.8	34.1	33.5	32.8	-8.9
Ethiopia	34.8	34.3	33.8	33.3	32.8	32.3	-7.5
Gabon	31.9	31.7	31.4	31	30.6	30.1	-5.7
The Gambia	42.1	41.7	41.4	40.9	40.5	40	-5.2
Ghana	33.3	33.1	32.8	32.4	32	31.6	-5.5
Guinea	38.6	38.1	37.7	37.3	36.8	36.4	-6
Guinea-Bissau	39.3	38.9	38.6	38.2	37.7	37.1	-5.5
Kenya	35.1	34.3	33.6	32.9	32.3	31.8	-9.9
Lesotho	28.5	28.6	28.6	28.5	28.4	28.2	-1.3
Liberia	37.2	36.6	36.1	35.6	35.2	34.7	-6.8
Madagascar	35.2	34.8	34.4	34	33.7	33.4	-5.3
Malawi	40.3	39.5	38.7	38.1	37.5	37.1	-8.5
Mali	46.4	45.8	45.1	44.5	43.8	43.2	-7
Mauritania	36.2	35.9	35.7	35.3	35	34.6	-4.6
Mauritius	12	11.7	11.5	10.9	10.6	10.1	-17.2
Mozambique	41.5	41.1	40.6	40.2	39.8	39.4	-5.3
Namibia	30	30.1	30.2	30.1	29.9	29.6	-1.4
Niger	50	49.7	49.4	49.1	48.7	48.4	-3.2
Nigeria	41.3	41	40.7	40.3	39.8	39.4	-4.9
Rwanda	35.3	34.6	33.9	33.2	32.5	31.8	-10.5
Sao Tome and Principe	36.7	36.2	35.8	35.3	34.8	34.3	-6.6
Senegal	38.2	38	37.7	37.3	36.8	36.2	-5.5
Seychelles	16.8	18.6	18.6	17.4	17	17	1.2
Sierra Leone	39.6	38.7	37.8	37	36.3	35.6	-10.5
South Africa	22.5	22.3	22.1	21.9	21.6	21.3	-5.5
South Sudan	38.3	37.9	37.5	37.1	36.7	36.3	-5.4
Swaziland	31.3	30.9	30.5	30.1	29.7	29.3	-6.7
Togo	37.2	36.7	36.1	35.6	35.1	34.5	-7.4
Uganda	45.2	44.7	44.2	43.6	43.1	42.6	-5.8
United Republic of Tanzania	41.1	40.6	40.1	39.6	39.1	38.6	-6.2
Zambia	40.4	39.9	39.5	39.1	38.8	38.4	-4.9
Zimbabwe	36	35.9	35.7	35.2	34.6	33.9	-6

Source: The World Bank database– https://data.worldbank.org/indicator/SP.DYN.CONU.ZS

Crude death rate per 1000 mid-year total population							
2010	2011	2012	2013	2014	2015	% rate of change	
4.8	4.8	4.8	4.8	4.8	4.8	0.4	Algeria
10.5	9.9	9.5	9.2	8.9	8.7	-18.5	Angola
10.1	9.9	9.8	9.6	9.5	9.3	-8	Benin
9.3	8.8	8.3	7.8	7.4	7	-28.4	Botswana
10.6	10.2	9.8	9.4	9.1	8.8	-18.8	Burkina Faso
12.3	12.1	11.8	11.5	11.3	11	-11	Burundi
5.7	5.7	5.7	5.7	5.7	5.6	-2.2	Cabo Verde
11.7	11.4	11.1	10.9	10.6	10.3	-11.9	Cameroon
16.6	16.1	15.5	15	14.5	14	-16.8	Central African Republic
15.1	14.7	14.3	13.9	13.5	13.2	-13.5	Chad
8.2	8.1	7.9	7.7	7.6	7.5	-9.6	Comoros
9.3	8.8	8.5	8.1	7.8	7.6	-20.6	Congo
14.2	13.9	13.5	13.2	12.9	12.5	-12.6	Côte d'Ivoire
11.6	11.3	11	10.7	10.4	10.2	-12.9	Democratic Republic of the Congo
11.4	11.1	10.9	10.7	10.5	10.3	-9.4	Equatorial Guinea
8.3	8	7.8	7.5	7.3	7.1	-15.9	Eritrea
8.4	8	7.7	7.4	7.2	7	-18.1	Ethiopia
9.2	8.9	8.6	8.3	8	7.8	-15.8	Gabon
9	8.8	8.7	8.5	8.4	8.2	-9.6	The Gambia
9.1	9	8.8	8.7	8.5	8.3	-9.6	Ghana
11.1	10.8	10.5	10.2	9.9	9.6	-15.1	Guinea
12	11.8	11.5	11.3	11	10.8	-10.7	Guinea-Bissau
7.3	6.8	6.5	6.2	6	5.8	-21.9	Kenya
14.4	14	13.7	13.4	13.2	12.9	-10.7	Lesotho
9.3	9.1	8.8	8.6	8.4	8.1	-14.1	Liberia
7.4	7.2	7	6.8	6.6	6.5	-13	Madagascar
9.8	9.2	8.6	8.2	7.8	7.5	-27.2	Malawi
12.5	12.1	11.7	11.4	11	10.7	-15.7	Mali
8.5	8.4	8.3	8.2	8.1	8	-6.8	Mauritania
7.3	7.3	7.4	7.5	7.7	7.7	5.3	Mauritius
12	11.7	11.3	11	10.7	10.4	-14.5	Mozambique
9.9	9.3	8.7	8.2	7.8	7.5	-28.2	Namibia
11.8	11.3	10.9	10.5	10.2	9.9	-17	Niger
14.3	14	13.7	13.4	13.1	12.8	-11.4	Nigeria
7.7	7.2	6.9	6.6	6.3	6.1	-22.2	Rwanda
7.4	7.2	7.1	7	6.9	6.8	-7.8	Sao Tome and Principe
7.3	7	6.7	6.5	6.3	6.1	-18.7	Senegal
7.4	7.9	7.4	8	7.9	7.5	1.3	Seychelles
15.5	14.8	14.2	13.8	13.4	13	-17.1	Sierra Leone
13	12.3	11.7	11.1	10.5	10.1	-25.2	South Africa
12.8	12.4	12.1	11.8	11.5	11.2	-12.6	South Sudan
12.6	11.9	11.3	10.7	10.2	9.9	-24.4	Swaziland
10.2	9.8	9.5	9.2	9	8.8	-14.1	Togo
10.1	9.8	9.5	9.3	9.1	8.9	-13.2	Uganda
8.6	8.3	8	7.6	7.3	7	-20.8	United Republic of Tanzania
10.1	9.6	9.1	8.6	8.3	8	-23.8	Zambia
11.8	11	10.1	9.4	8.9	8.4	-34.3	Zimbabwe

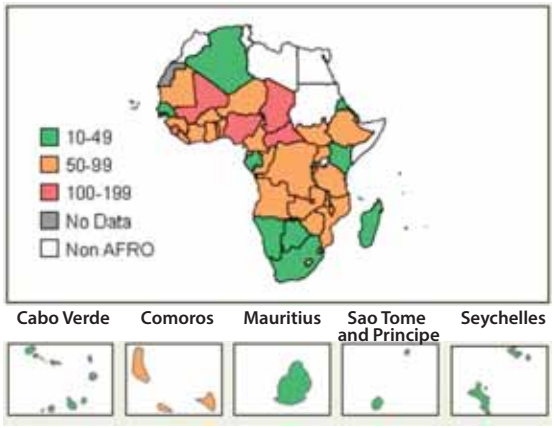
2.3 Child mortality rates

The SDG target 3.2 aims to end, by 2030, preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality rate to at least as low as 12 per 1000 live births and under-five mortality rate to at least as low as 25 per 1000 live births.

The child mortality data from WHO suggests that the neonatal and under-five mortality rates in the Region are declining fairly rapidly. During the MDG era (2000–2015), the neonatal mortality rate per 1000 live births declined by 38% from 41 in 2000 to 28 in 2015, and the under-five mortality rate per 1000 live births declined by up to 64% from 153 in 2000 to 81 in 2015. The linear projections based on the average annual rate of reduction during the MDG period show that the pace of decline during the MDG period is not enough to meet the SDG target. Nonetheless, the rates will come close to the targets. According to the projections, by 2030, the neonatal and under-five mortality rates in the Region will be 19 and 43 per 1000 live births, respectively. The child mortality rates continued to decline in 2016, with under-five and neonatal mortality rates per 1000 live births declining to 76.5 and 27.2, respectively.

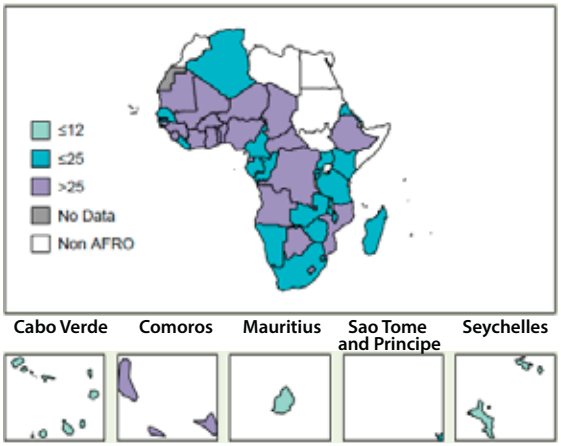
Differences in child mortality rates between countries were very large in 2016. The neonatal mortality rate ranged from 8 per 1000 live births in Mauritius to 42 per 1000 live births in Central African Republic, and under-five mortality rate ranged from 13.7 per 1000 live births in Mauritius to 127.3 per 1000 live births in Chad. If the pace of decline during the MDG era is sustained, the SDG target for child mortality rate may be met by about 20 countries, most of them in Eastern and Southern

Figure 12 Under-five mortality rate per 1000 live births in the African Region, 2016



Data source: WHO, 2016

Figure 13 Neonatal mortality rate per 1000 live births in the African Region, 2016

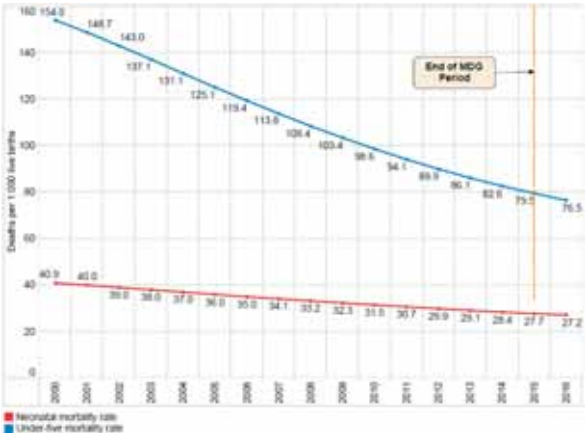


Data source: WHO, 2016

Figure 14 Trends in child mortality rates per 1000 live births in the African Region, projected from the MDG era

Data source: WHO

Figure 15 Trends in child mortality rates per 1000 live births in the African Region



Data source: WHO

Africa, including Botswana, Kenya, Malawi, Rwanda, South Africa, Uganda, United Republic of Tanzania and Zambia.

Compared to the other WHO regions, child mortality rates are generally higher. For instance, compared to the European Region, the under-five and neonatal mortality rate in 2016 was about 8 and 5 times higher, respectively.

The SDG targets for child mortality are quite ambitious, as they aim to bring child mortality rates closer to zero. This may be difficult to achieve in the African Region, partly because of the known challenges in health care service delivery, and also because the pace of decline in mortality rates generally tends to slow down significantly as the values approach zero. Simply sustaining and/or increasing a trend towards a decline in child mortality rates could be a key performance indicator for the countries in the Region.

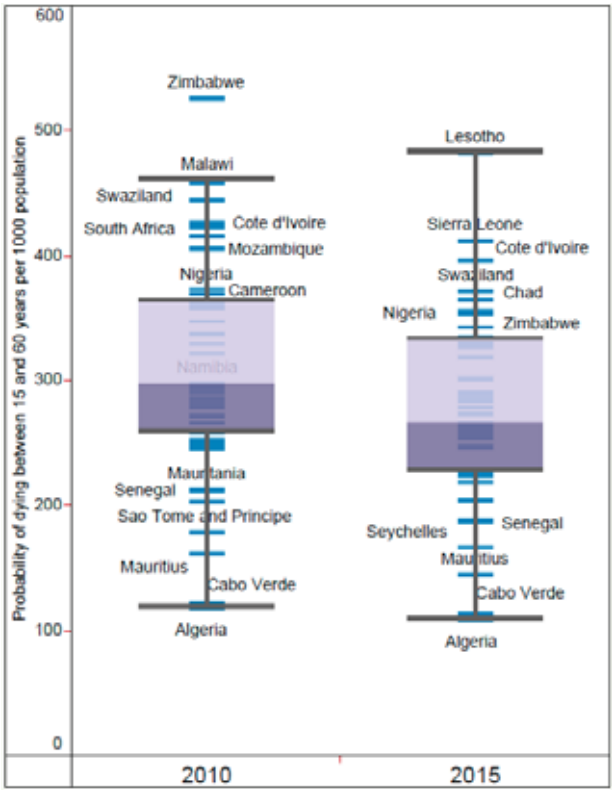
2.4 Adult mortality rate

Adult mortality rate represents the probability that a 15-year-old person will die before reaching his/her 60th birthday. Adult mortality rate in the WHO African Region is still very high, but the trend is towards a steady decline.

In 2015, up to 16 countries in the Region had an estimated adult mortality rate higher than 300 per 1000 population, and 24 countries had an estimated 200-300 adult deaths per 1000 population.

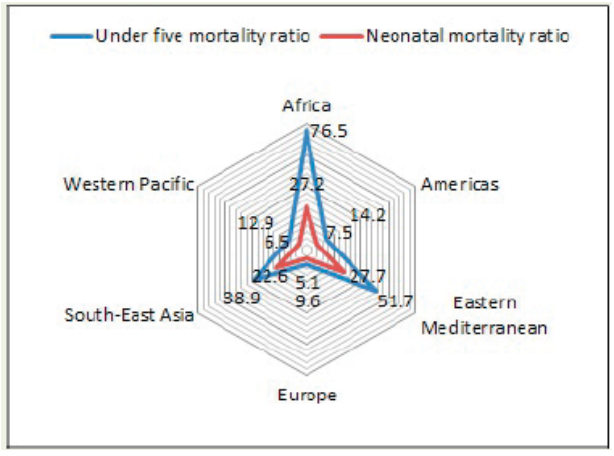
The rate was 300 per 1000 population in 2015. This represents

Figure 16 Child mortality rates per 1000 live births in the African Region, 2016



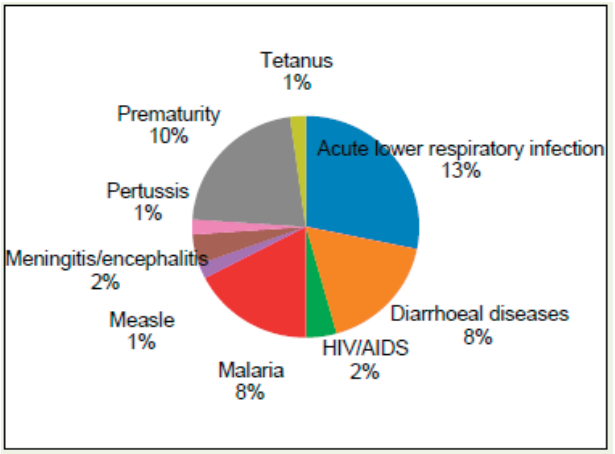
Data source: WHO, 2016

Figure 17 Child mortality rates per 1000 live births in the African Region



Data source: WHO, 2016

Figure 18 Child mortality rates per 1000 live births in the African Region



Data source: WHO, 2015

Table 5 Child mortality rates per 1000 live births by country in the African Region

	Under-fice mortality rate			Neonatal mortality rate		
	Baseline value (2015)	Projected value (2030)	AARR (%) needed to reach the SDG target	Baseline value (2015)	Projected value (2030)	AARR (%) needed to reach the SDG target
African Region	81.3	42.5	7.9	28.0	19.3	5.6
Algeria	25.5	16.3	0.1	15.5	11.4	1.7
Angola	156.9	113.2	12.2	48.7	40.6	9.3
Benin	99.5	68.1	9.2	31.8	25.5	6.5
Botswana	43.6	22.6	3.7	21.9	20.0	4.0
Burkina Faso	88.6	41.5	8.4	26.7	16.7	5.3
Burundi	81.7	43.3	7.9	28.6	20.7	5.8
Cabo Verde	24.5	16.8	2.5	12.2	8.6	0.1
Cameroon	87.9	50.9	8.4	25.7	19.0	5.1
Central African Republic	130.1	96.5	11.0	42..6	37.0	8.4
Chad	138.7	100.8	11.4	39.3	33.0	7.9
Comoros	73.5	53.3	7.2	34.0	27.6	6.9
Congo	45.0	16.1	3.9	18.0	9.6	2.7
Côte d'Ivoire	92.6	58.5	8.7	37.9	28.7	7.7
Democratic Republic of the Congo	98.3	59.5	9.1	30.1	23.4	6.1
Equatorial Guinea	94.1	57.8	8.8	33.1	24.4	6.8
Eritrea	46.5	23.9	4.1	18.4	12.8	2.8
Ethiopia	59.2	23.5	5.7	27.7	15.7	5.6
Gabon	50.8	30.0	4.7	23.2	18.0	4.4
Gambia	68.9	39.6	6.8	29.9	21.4	6.1
Ghana	61.6	37.4	6.0	28.3	22.0	5.7
Guinea	93.7	51.0	8.8	31.3	20.2	6.4
Guinea-Bissau	92.5	47.5	8.7	39.7	28.2	8.0
Kenya	49.4	22.1	4.5	22.2	16.9	4.1
Lesotho	90.2	69.5	8.6	32.7	28.3	6.7
Liberia	69.9	26.0	6.9	24.1	13.1	4.6
Madagascar	49.6	22.0	4.6	19.7	12.1	3.3
Malawi	64.0	22.7	6.3	21.8	13.2	4.0
Mali	114.7	59.0	10.2	37.8	25.0	7.6
Mauritania	84.7	63.0	8.1	35.7	29.6	7.3
Mauritius	13.5	9.8	2.1	8.4	5.7	2.5
Mozambique	78.5	35.3	7.6	27.1	16.5	5.4
Namibia	45.4	27.0	4.0	15.9	12.9	1.9
Niger	95.5	39.1	8.9	26.8	16.4	5.4
Nigeria	108.8	62.7	9.8	34.3	24.3	7.0
Rwanda	41.7	8.7	3.4	18.7	8.1	3.0
Sao Tome and Principe	47.3	24.7	4.3	17.1	11.9	2.4
Senegal	47.2	15.9	4.2	20.8	11.0	3.7
Seychelles	13.6	12.9	0.3	8.6	8.0	0.5
Sierra Leone	120.4	60.5	10.5	34.9	24.2	7.1
South Africa	40.5	21.5	32	11.0	7.5	2.6
Swaziland	60.7	28.2	5.9	14.2	9.4	1.1
Togo	78.4	50.6	7.6	26.7	19.7	5.3
Uganda	54.6	19.4	5.2	18.7	10.6	3.0
United Republic of Tanzania	48.7	17.6	4.4	18.8	10.9	3.0
Zambia	64.0	24.4	6.3	21.4	13.2	3.9
Zimbabwe	70.7	47.0	6.9	23.5	26.3	4.5

Data source: WHO, 2016

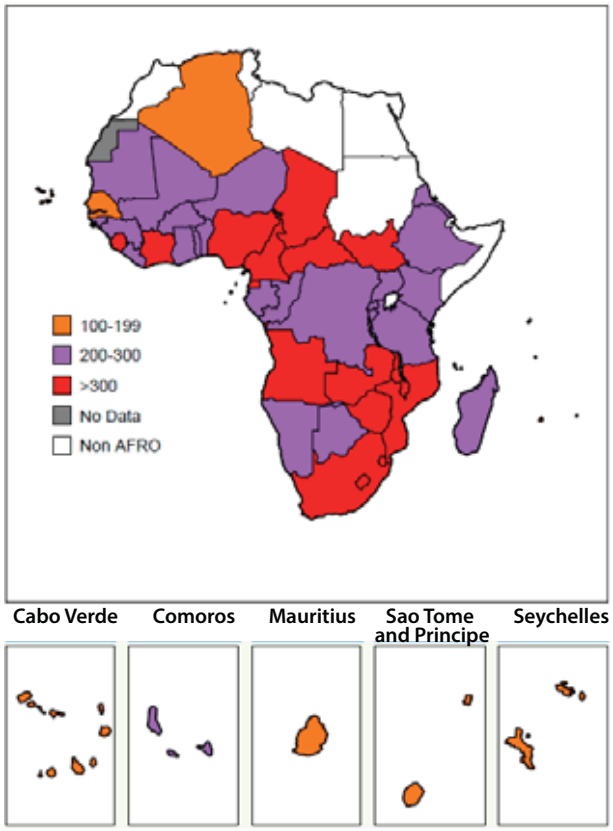
a 12.8% decline from 341 in 2010. If the pace of decline during the period 2010–2015 is sustained, the adult mortality rate will be around 283 per 1000 population in 2017.

The rates are higher among males than females and, because the pace of decline of adult mortality rate among males is slower (2.1% average annual rate of decline) compared to females (3.5% average annual rate of decline), the male-female gap is widening: in 2014 and 2015, the rate among males was 17% higher compared to females, up from 10% in 2010, 12% in 2011, 14% in 2012 and 15% in 2013.

Differences in adult mortality rate between countries in the Region are quite substantial, with up to 375-point difference between the top and bottom countries. In 2015, Lesotho had the highest adult mortality rate per 1000 population (484), followed by Sierra Leone (413), Côte d'Ivoire (397), Central African Republic (397) and Swaziland (373). Algeria had the lowest adult mortality rate in 2015 (109), followed by Cabo Verde (114), Mauritius (146), Seychelles (168) and Senegal (188). Quite reassuringly however, during the period 2010–2015, adult mortality rate declined in each of the countries in the Region, with the biggest declines in the Southern African countries of Zimbabwe (by up to 45.0%), Botswana (31.0%) and South African (26.6%). Benin registered the smallest decline in adult mortality rate (2%), followed by Chad (2.2%), Guinea (2.4%), Mali (2.6%) and Sierra Leone (2.6%).

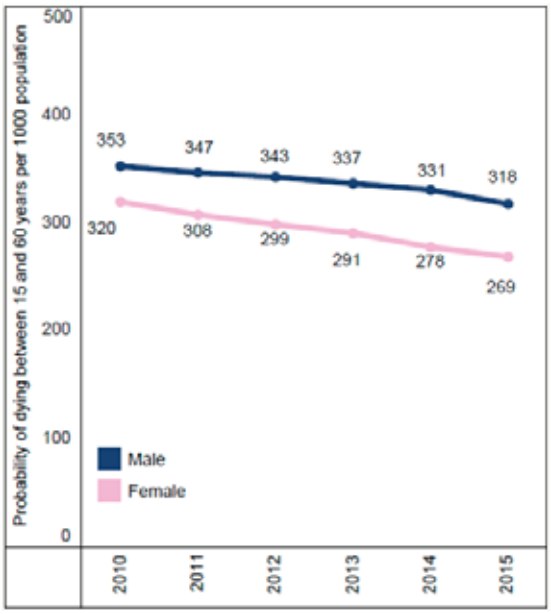
Compared to the other WHO regions, the adult mortality rate is much higher (at least twofold) than elsewhere in the world. For instance, there are up to 207 more adult deaths per 1000 population in the African Region than in Western Pacific and 176 more adult deaths per 1000 population than in the Americas and Europe.

Figure 19 Adult mortality rate per 1000 population in the African Region



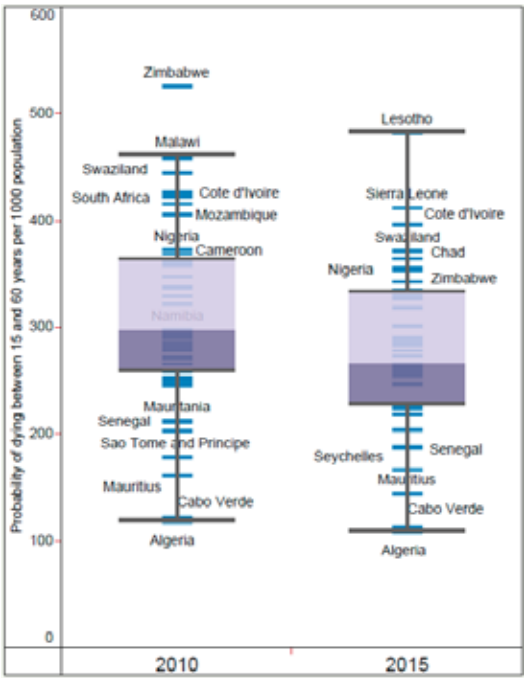
Data source: WHO, 2015

Figure 20 Trends in adult mortality rate per 1000 population, by sex in the African Region



Data source: WHO

Figure 21 **Adult mortality rate per 1000 population by year in the African Region**



Data source: WHO

Table 6 **Top 10 countries with the highest mortality rate per 1000 population in the African Region**

	2010	2015
Lesotho	527	484
Sierra Leone	424	413
Côte d'Ivoire	417	397
Central African Republic	446	397
Swaziland	459	373
Malawi	462	365
Cameroon	370	357
Chad	364	356
Mozambique	407	355
Nigeria	374	344

Data source: The World Bank database

Table 7 **Adult mortality rate per 1000 population by WHO region**

	2013	2014	2015
Africa	317	308	300
South-East Asia	182	180	177
Eastern Mediterranean	157	154	155
Europe	130	126	124
Americas	126	125	124
Western Pacific	95	94	93

Data source: WHO

Table 8 Adult mortality rate per 1000 population in the African Region

	Both sexes		Male		Female		Rate of decline (%)
	2010	2015	2010	2015	2010	2015	
Algeria	119	109	143	134	94	83	-8.8
Angola	365	335	388	362	342	308	-8.6
Benin	254	249	280	272	229	226	-2.0
Botswana	349	256	400	298	294	212	-31.0
Burkina Faso	279	260	296	275	266	248	-7.1
Burundi	330	288	356	320	302	255	-13.6
Cabo Verde	123	114	145	137	105	97	-7.6
Cameroon	370	357	384	377	357	338	-3.6
Central African Republic	446	397	464	420	431	375	-11.6
Chad	364	356	386	378	344	333	-2.2
Comoros	246	227	271	252	220	202	-8.0
Congo	298	267	313	288	282	245	-11.0
Côte d'Ivoire	417	397	437	414	394	377	-4.9
Democratic Republic of the Congo	283	258	306	283	260	234	-9.2
Equatorial Guinea	339	320	352	346	324	291	-5.8
Eritrea	298	255	339	289	258	222	-15.6
Ethiopia	261	225	284	253	238	197	-14.8
Gabon	294	229	268	239	320	219	-25.0
Gambia	284	262	306	290	261	234	-8.1
Ghana	267	249	287	274	249	224	-7.0
Guinea	291	284	307	296	274	273	-2.4
Guinea-Bissau	287	275	311	310	264	240	-4.3
Kenya	294	249	313	290	275	206	-16.6
Lesotho	527	484	567	528	498	450	-8.5
Liberia	272	259	293	285	252	232	-4.9
Madagascar	248	220	273	245	222	196	-12.0
Malawi	462	365	486	398	438	330	-23.6
Mali	273	266	273	266	275	267	-2.6
Mauritania	214	205	237	227	190	182	-4.3
Mauritius	163	146	214	190	110	99	-11.0
Mozambique	407	355	439	402	380	314	-13.7
Namibia	299	248	324	296	278	205	-18.7
Niger	252	220	263	236	237	199	-13.6
Nigeria	374	344	389	368	358	318	-8.4
Rwanda	260	227	353	313	178	152	-13.6
Sao Tome and Principe	204	190	234	217	176	164	-7.1
Senegal	212	188	243	225	186	156	-12.0
Seychelles	180	168	251	236	97	91	-6.9
Sierra Leone	424	413	427	422	421	403	-2.6
South Africa	428	328	476	386	389	272	-26.6
South Sudan	359	332	371	351	347	313	-7.8
Swaziland	459	373	516	425	408	326	-20.7
Togo	323	287	335	309	312	266	-11.8
Uganda	362	291	375	325	350	256	-21.8
United Republic of Tanzania	360	279	372	311	349	245	-25.5
Zambia	363	303	398	360	328	242	-18.1
Zimbabwe	527	336	542	359	513	313	-45.0

Data source: WHO

2.5 Causes of death

Ischaemic heart disease and strokes are the world's biggest killers, accounting for a combined 15 million deaths in 2015. While this is not the case in the African Region, greater efforts are required to control noncommunicable diseases (NCDs) and their risk factors, as recent trends suggest that it will not be long before both become the biggest causes of mortality and morbidity in the Region.

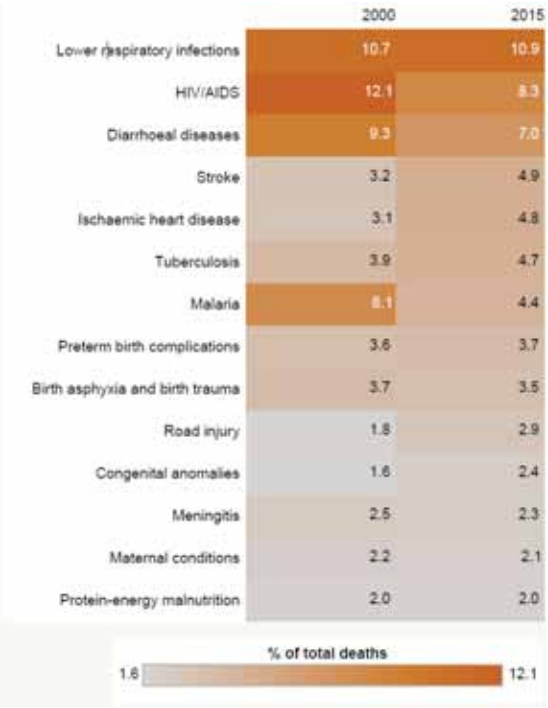
In the year 2000, stroke and ischaemic heart disease were ranked 8th and 9th leading causes of death, respectively, but in 2015, they were in the 4th and 5th position, after lower respiratory tract infections, HIV/AIDS and diarrhoeal diseases. When both stroke and ischaemic heart disease are combined, they rank second among the leading causes of death in the Region.

Malaria has dropped quite substantially in position, from being the 4th leading cause of death in 2000 to the 7th, which is largely due to the good performance of the malaria control programme in the Region rather than the emergence of other diseases. HIV remains the second leading cause of death, but if the current improvements in HIV control programmes are sustained, it will not be long before HIV/AIDS is eliminated from the group of leading killers in the Region.

Proportional mortality from lower respiratory tract infections and diarrhoeal diseases have remained largely unchanged in 15 years (2000–2015); special efforts are therefore required, including research that helps to understand the specific organisms responsible for the cause of death from lower respiratory tract infections and diarrhoeal diseases, as well as research on practices related to seeking health care. Similarly, proportional mortality from birth asphyxia, birth trauma and preterm complications have remained largely unchanged during the period 2000-2015, with birth asphyxia and birth trauma, and preterm complications still accounting for about 4% of deaths.

Death from road traffic injuries is on the rise. In year 2000, road traffic injuries accounted for 1.2% of the deaths, but in 2015, it accounted for 2.9%. Road traffic injuries have moved up the ladder of the leading killers, from the 13th position in the year 2000 to the 10th position in 2015.

Figure 22 Percentage of total deaths by main cause in the African Region



Data source: WHO

Chapter 3. Maternal and Reproductive Health

3.1 Maternal mortality

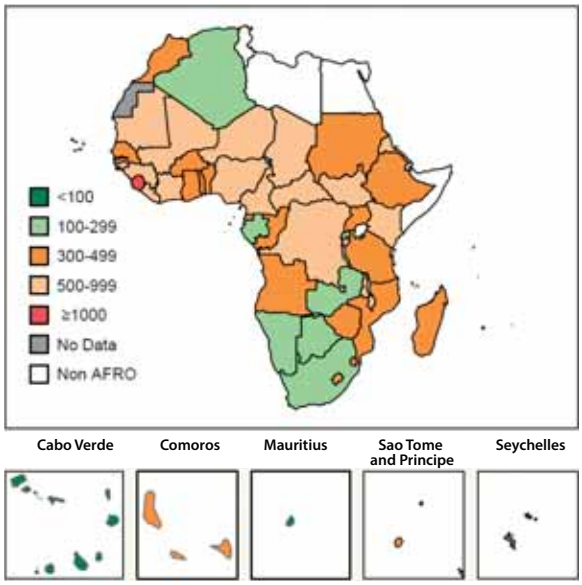
The SDG target 3.1 aims to reduce the global maternal mortality ratio to less than 70 per 100 000 live births.

Data from the UN Inter-agency Group for Maternal Mortality suggests that the maternal mortality ratio (MMR) in Africa remains high but it is declining, albeit very slowly. By the end of the MDG era in 2015, MMR in the Region was 542 per 100 000 live births, which is up to 34 times higher than the MMR in Europe.

Linear projection based on the trend during the MGD period suggests that Africa will not meet the SDG target for MMR of 70 per 100 000 live births by 2030, rather the MMR will be around 347 per 100 000 live births. If the pace of decline during the MGD period does not increase, it may not be until 2084 that Africa will hit the 70 per 100 000 live births mark. By that time, about 8 million mothers in the Region will have lost their lives to a pregnancy-related cause. Therefore, to meet the SDG target by 2030, Africa and its partners will need to put in place accelerated measures to reduce the MMR by about 13% annually from its 2015 value.

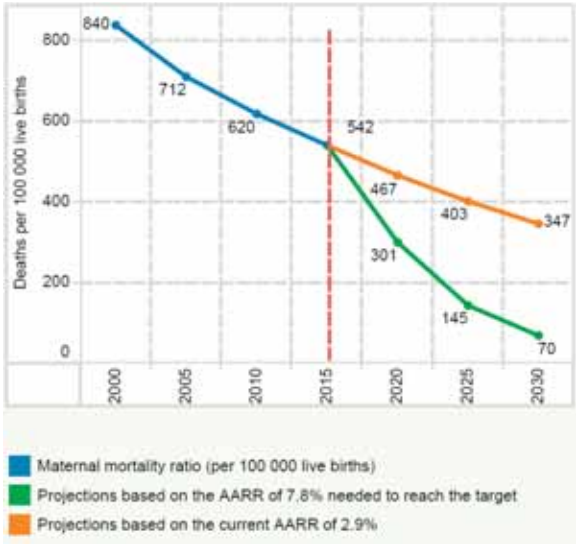
Intercountry differences are quite substantial, with MMR in Sierra Leone much higher than elsewhere in the Region. Projections based on the trends during the MDG period suggest that only two countries in the African Region will meet the SDG target in 2030: Botswana and Mauritius, with the 2030 projected values as 52 and 70 per 100 000 live births, respectively. Rwanda and Zambia may come close to the target, with the projected values of 78 and 90 per 100 000 live births, respectively. The MMR in Sao-Tome and Principe, Algeria, and Ethiopia may be close to 100 per 100 000 live births by 2030. The other countries will require greater efforts.

Figure 23 Maternal mortality ratio per 100 000 live births in the African Region



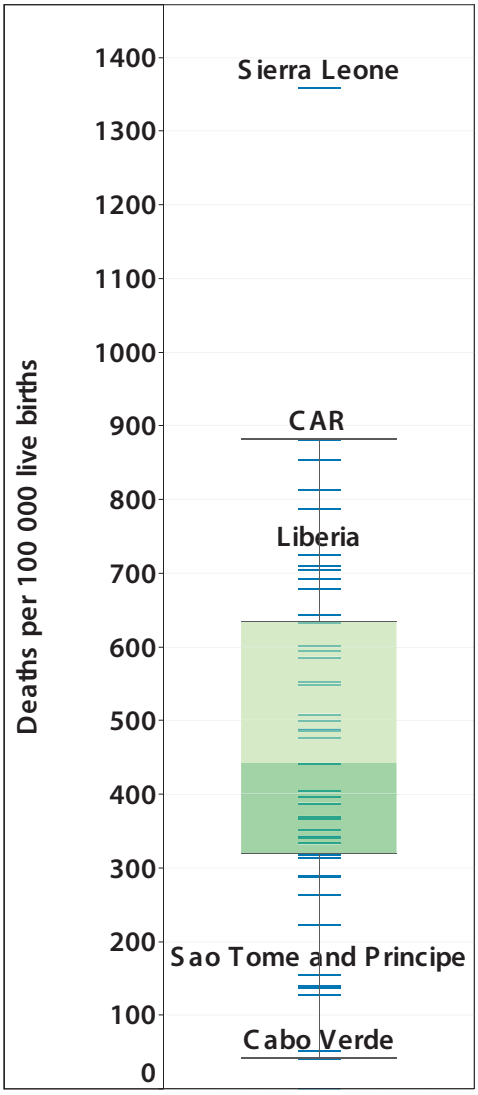
Data source: UN inter-agency group for maternal mortality, 2015

Figure 24 Trends in maternal mortality ratio per 100 000 live births in the African Region



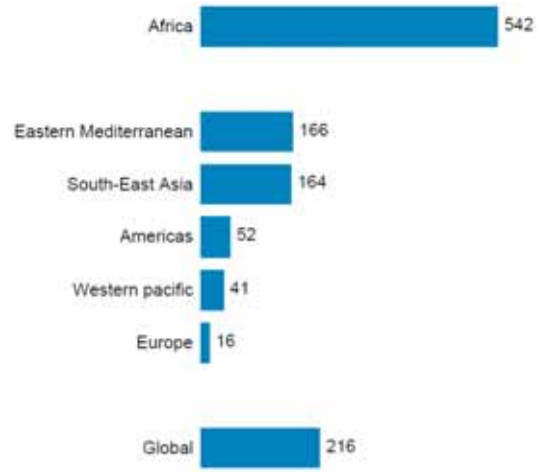
Data source: WHO

Figure 25 Maternal mortality ratio per 100 000 live births in the African Region



Data source: WHO, 2015

Figure 26 Maternal mortality ratio per 100 000 live births by WHO region



Data source: UN inter-agency group for maternal mortality, 2015

Table 10 Projections for the maternal mortality ratio per 100 000 live births in the African Region

	Maternal mortality ratio		
	Baseline value (2015)	Projected value (2030)	AARR (%) needed to reach the SDG target
Africa	542	347.4	13.6
Algeria	140	115	4.6
Angola	477	243	12.8
Benin	405	286	11.7
Botswana	129	52	4.1
Burkina Faso	371	251	11.1
Burundi	712	530	15.5
Côte d'Ivoire	645	491	14.8
Cabo Verde	42	21	4.5
Cameroon	596	473	14.3
Central African Republic	882	646	16.9
Chad	856	531	16.7
Comoros	335	224	10.4
Congo	442	298	12.3
Democratic Republic of the Congo	693	549	15.3
Equatorial Guinea	342	164	10.6
Eritrea	501	341	13.1
Ethiopia	353	135	10.8
Gabon	291	208	9.5
Gambia	706	561	15.4
Ghana	319	217	10.1
Guinea	679	470	15.1
Guinea-Bissau	549	375	13.7
Kenya	510	341	13.2
Lesotho	487	364	12.9
Liberia	725	409	15.6
Madagascar	353	231	10.8
Malawi	634	450	14.7
Mali	587	411	14.2
Mauritania	602	444	14.3
Mauritius	53	48	1.7
Mozambique	489	258	13
Namibia	265	199	8.9
Niger	553	383	13.8
Nigeria	814	564	16.4
Rwanda	290	78	9.5
Sao Tome and Principe	156	109	5.3
Senegal	315	202	10
Seychelles			
Sierra Leone	1,360	687	19.8
South Africa	138	124	4.5
South Sudan	789	489	16.2
Swaziland	389	257	11.4
Togo	368	275	11.1
Uganda	343	187	10.6
United Republic of Tanzania	398	184	11.6
Zambia	224	90	7.8
Zimbabwe	443	332	12.3

■ Country that may reach the SDG target

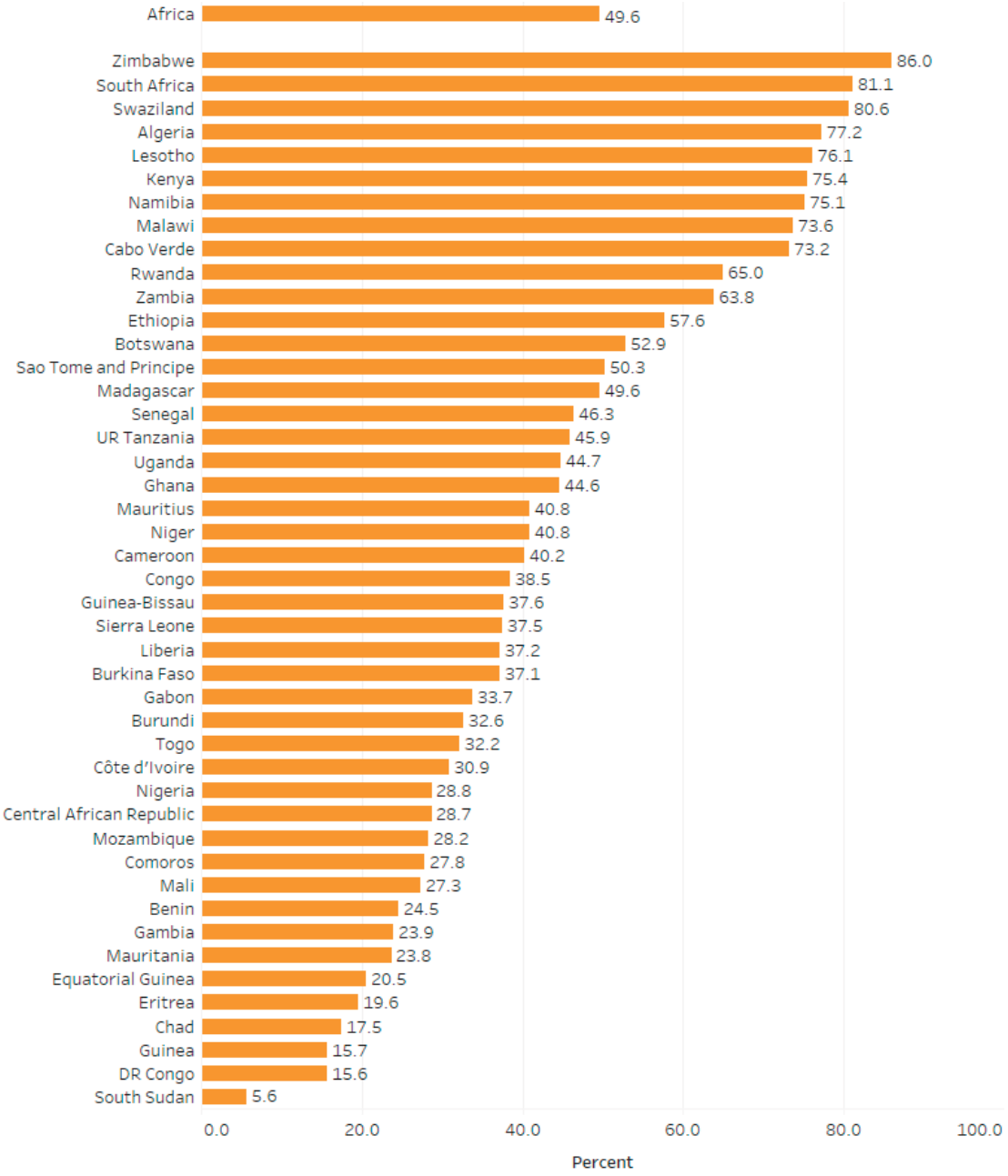
■ Country that may not reach the SDG target

Data source: WHO, 2015

3.2 Family planning

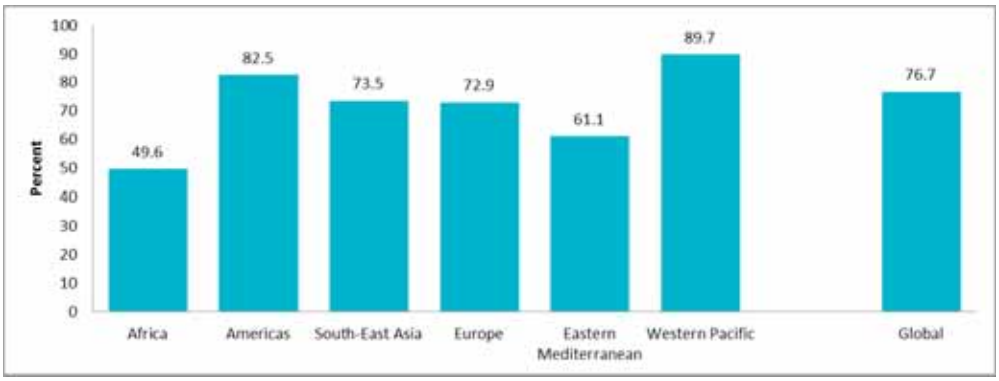
The demand for family planning met with modern methods in the WHO African Region is low. During the period 2011 – 2015, only 49.6% of women of reproductive age who were married or in-union in the Region had their needs for family planning met with modern methods, which is far lower than the rates in the WHO Regions of Western Pacific (89.7%), Americas (82.5%) and South-East Asia (73.5%). Zimbabwe had the highest percentage of women whose family planning needs were satisfied (86.0%), followed by Swaziland (80.6%), Algeria (77.2%), Lesotho (76.1%), and Kenya (75.4%). The rates were particularly low in the Democratic Republic of Congo (15.6%), Guinea (15.7%), Chad (17.5), and Equatorial Guinea (20.5%).

Figure 27 Percentage of married or in-union women of reproductive age who have their need for family planning satisfied with modern methods in the African Region



Data source: WHO, 2011–2015

Figure 28 **Percentage of married or in-union women of reproductive age who have their need for family planning satisfied with modern methods by WHO region**

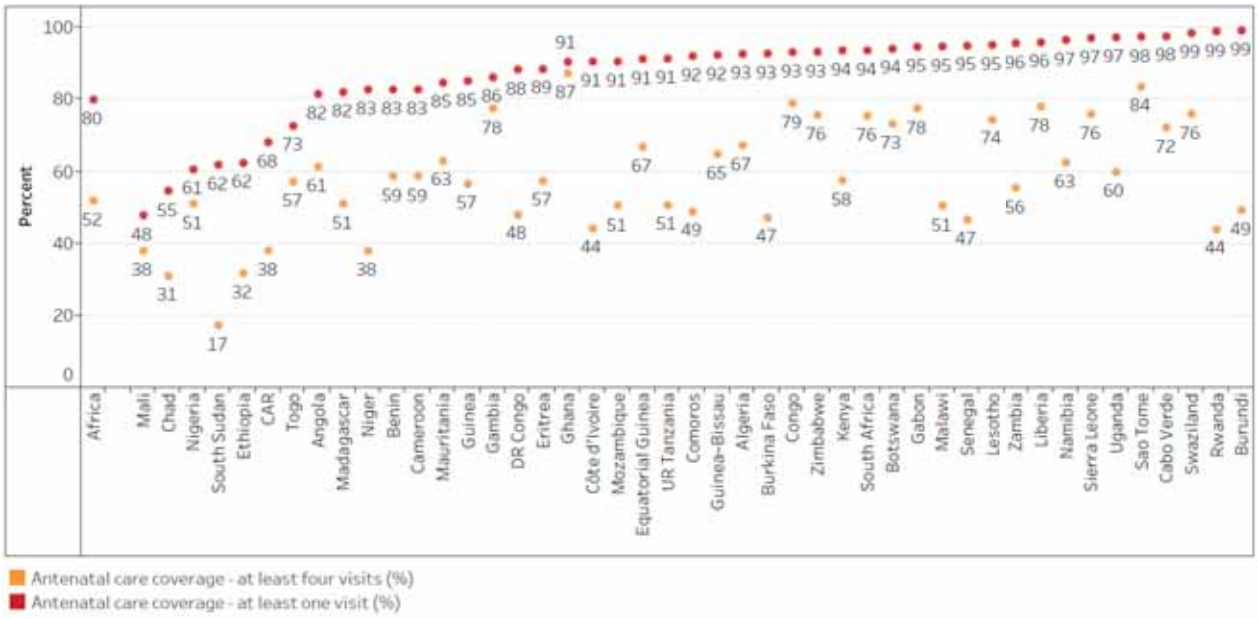


Data source: WHO, 2015

3.3 Antenatal care

Antenatal care (ANC) coverage in the WHO African Region remains worryingly low. Although 77% of the pregnant women in the Region made the first antenatal care visit (ANC 1) in 2015; only 54% received the full life-saving potential of four ANC visits (ANC 4). Rates of ANC visits in the African Region are very low when compared to WHO Regions of Americas and Europe where, for instance, 94% and 92% of pregnant women make at least four antenatal care visits, respectively.

Figure 29 **Antenatal care coverage (%) in the African Region**

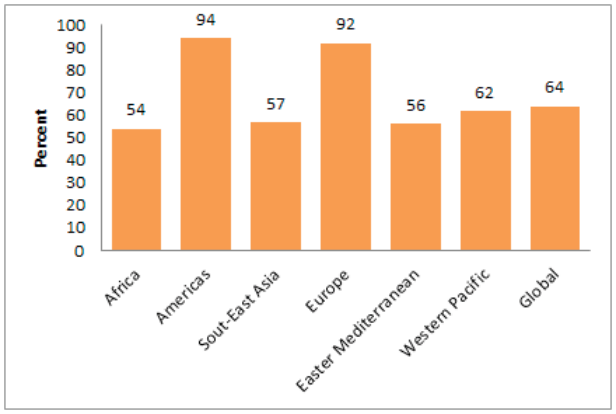


Data source: WHO, 2011–2016

Disparities between the countries in the proportion of pregnant women who make at least four ANC visits and therefore receive the full life-saving potential of ANC are very wide, with the absolute gap between the top and bottom countries as wide as 70 percentage points in 2016. In the same year, Ghana had the highest percentage of pregnant women who made at least four ANC visits (87.3), followed by Sao Tome and Principe (83.6%), Republic of the Congo (79%), Liberia (78.1%), Gambia and Gabon (77.6%).

ANC 1 coverage was at least 95% in 14 countries, with near-universal coverage in Burundi (99.2%), Rwanda (99.0%), Swaziland (98.5%), Cabo Verde (97.6%) and Sao Tome and Principe (97.5%). However, there is a very big dropout rate between ANC 1 and ANC 4 in most of countries, including those with near universal ANC 1 coverage. For instance, the dropout rate in Burundi and Rwanda (countries that had near universal ANC 1 coverage) was 50% and 56%, respectively. Ghana and The Gambia are the only countries among those with near universal ANC 1 coverage that had low dropout rates: 3.5% and 10.0%, respectively. Data are not currently available to assess the timing of the first antenatal visit which has substantial impact on whether or not a pregnant mother makes the fourth ANC visit.

Figure 30 Proportion of pregnant women who made at least four visits to the antenatal care by WHO Region



Data source: WHO, 2015

Table 9 Antenatal care coverage in the African Region

	Antenatal care coverage–at least one visits (%)	Antenatal care coverage–at least four visit (%)	Drop-out rate (%)
Algeria	92.7	67.3	27.4
Angola	81.6	61.4	24.8
Benin	82.8	58.7	29.1
Botswana	94.1	73.3	22.1
Burkina Faso	92.8	47.2	49.1
Burundi	99.2	49.3	50.3
Côte d'Ivoire	97.6	72.3	25.9
Cabo Verde	82.8	58.8	29.0
Cameroon	68.2	38.1	44.1
Central African Republic	54.7	31.0	43.3
Chad	92.1	48.9	46.9
Comoros	93.2	79.0	15.2
Congo	90.6	44.2	51.2
Democratic Republic of the Congo	88.4	48.0	45.7
Equatorial Guinea	91.3	66.9	26.7
Eritrea	88.5	57.4	35.1
Ethiopia	62.4	31.8	49.0
Gabon	94.7	77.6	18.1
Gambia	86.2	77.6	10.0
Ghana	90.5	87.3	3.5
Guinea	85.2	56.6	33.6
Guinea-Bissau	92.4	64.9	29.8
Kenya	93.7	57.6	38.5
Lesotho	95.2	74.4	21.8
Liberia	95.9	78.1	18.6
Madagascar	82.1	51.1	37.8
Malawi	94.8	50.6	46.6
Mali	47.9	38.0	20.7
Mauritania	84.7	63.0	25.6
Mauritius	–	–	
Mozambique	90.6	50.6	44.2
Namibia	96.6	62.5	35.3
Niger	82.8	38.0	54.1
Nigeria	60.6	51.1	15.7
Rwanda	99.0	43.9	55.7
Sao Tome and Principe	97.5	83.6	14.3
Senegal	95.0	46.7	50.8
Seychelles	–	–	
Sierra Leone	97.1	76.0	21.7
South Africa	93.7	75.5	19.4
South Sudan	61.9	17.3	72.1
Swaziland	98.5	76.1	22.7
Togo	72.7	57.2	21.3
Uganda	97.3	59.9	38.4
United Republic of Tanzania	91.4	50.7	44.5
Zambia	95.7	55.5	42.0
Zimbabwe	93.3	75.7	18.9

Source: WHO, 2011–2016

3.4 Skilled birth attendance

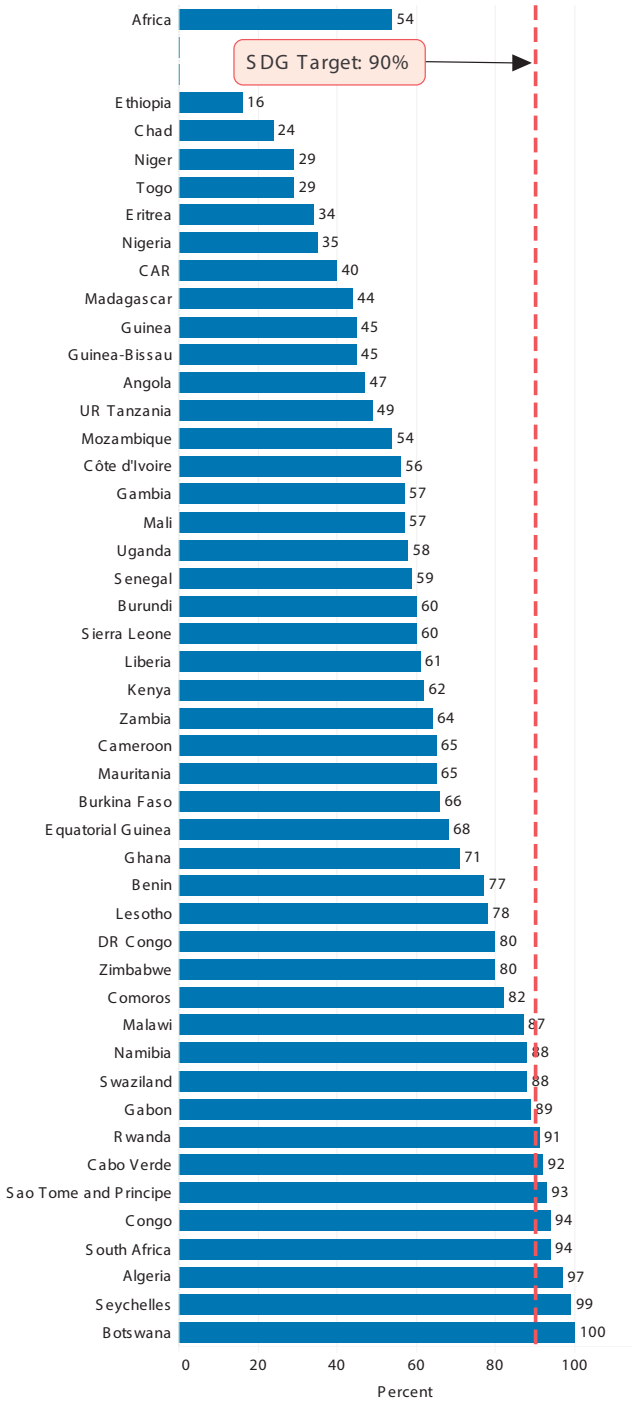
Attendance at birth by a skilled health worker is one of the major interventions for reducing maternal deaths. The term "skilled birth attendance" refers to births attended to by doctors, nurses or midwives trained to provide life-saving maternal and newborn care during pregnancy, birth and the postnatal period. This excludes deliveries by traditional birth attendants or by other auxiliary health workers trained to provide maternal and newborn care. Similar analysis in some countries will often include deliveries made by other health personnel and traditional birth attendants who have been trained to provide maternal and newborn care.

The rate of skilled birth attendance in the African Region is very low. During the period 2005–2016, only 54% of mothers had their births attended to by a skilled health worker, which is about half of the rate in Europe, Western Pacific and the Americas. There were wide disparities between countries, with rates particularly low in Ethiopia (16%), Chad (24%), Niger (29%) and Togo (29%). These countries, together with eight others (Angola, Central African Republic, Eritrea, Guinea, Guinea-Bissau, Madagascar, Nigeria and the United republic of Tanzania), have pushed the rate of skilled birth attendance in the Region down to around 50% and therefore require special efforts (Figure 31). The rate of skilled birth attendance was above the SDG target (90%) in nine countries, including Botswana and Mauritius with universal skilled attendance at birth, and Seychelles and Algeria with near-universal skilled attendance at birth. The rate was close to the SDG target in seven countries: Comoros, Democratic Republic of the Congo, Gabon, Malawi, Namibia, Swaziland and Zimbabwe. These countries may meet the SDG target well before 2030 if they sustain the current efforts.

Figure 32 Proportion of pregnant women who had their births attended to by a skilled health worker by WHO region

Data source: WHO 2016

Figure 31 Proportion of pregnant women who had their births attended to by a skilled health worker



Data source: WHO, 2005–2016

Chapter 4. Child health and nutrition

4.1 Immunization

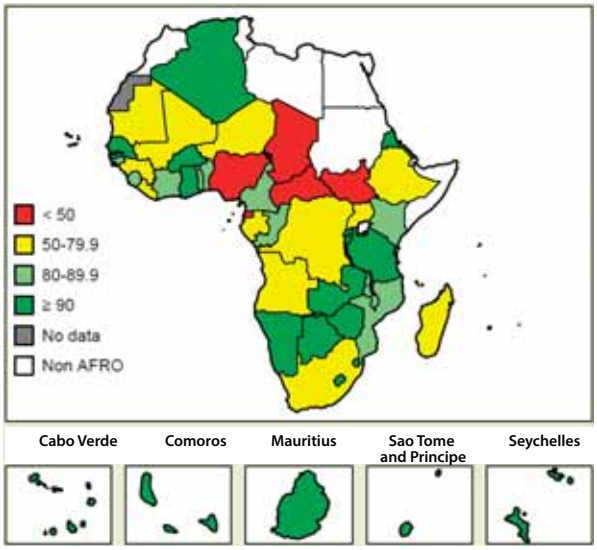
Penta 3 coverage

The percentage of children who receive up to three doses of pentavalent vaccine (penta3) in the Region is low and has remained almost stagnant during the period 2010 - 2016. WHO estimates show that, in 2016, only 74% of children <1 year in the Region received penta3; this is far below the 90% global target for immunization set by the Global Vaccine Action Plan. Penta 3 coverage in the African Region is also much lower when compared to the other WHO Regions. For instance, penta3 coverage in the African Region in 2016 was about 23 percentage points lower than the coverage in Western Pacific (97%), and 18 percentage points lower than the coverage in Europe (92%).

Differences in penta3 coverage between the Regional countries are very wide. In 2016 for instance, there was up to fivefold difference between the top and bottom countries, namely: Rwanda with 98% coverage and Equatorial Guinea with 19% coverage. Penta 3 coverage in 2016 was 90% or more in 14 countries: Namibia, Lesotho, Botswana, Zimbabwe, Zambia, United Republic of Tanzania, Burundi, Rwanda, Eritrea, Ghana, Burkina Faso, Senegal and Algeria. Penta3 coverage was less than 50% in five countries: Nigeria, Equatorial Guinea, Central African Republic, Chad and South Sudan. These five countries, together with 12 others with penta3 coverage 50% – 79.9%: South Africa, Madagascar, Angola, Democratic Republic of Congo (DRC), Uganda, Ethiopia, Gabon, Guinea, Liberia Mali, Niger, and Mauritania, are pulling down the penta3 coverage in the Region.

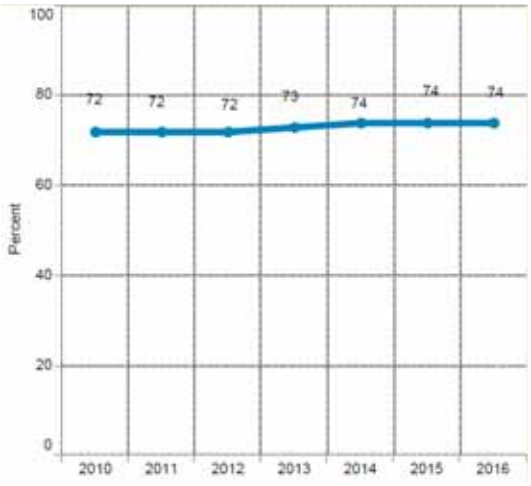
All countries registered Penta1-Penta3 dropout, except Cabo Verde, with the biggest dropout rate in Equatorial Guinea (53%) followed by Central African Republic (32%), South Sudan (26%) and Nigeria (23%). Rwanda, Mauritius, Sao Tome and Principe, Ghana and Democratic Republic of Congo had the smallest dropout rate (1%), followed by United Republic of Tanzania, Seychelles and Eritrea (2%); and Botswana, Burundi, and Senegal (3%).

Figure 33 **Percent of children <1 year who received up to three doses of Penta vaccine in the African Region**



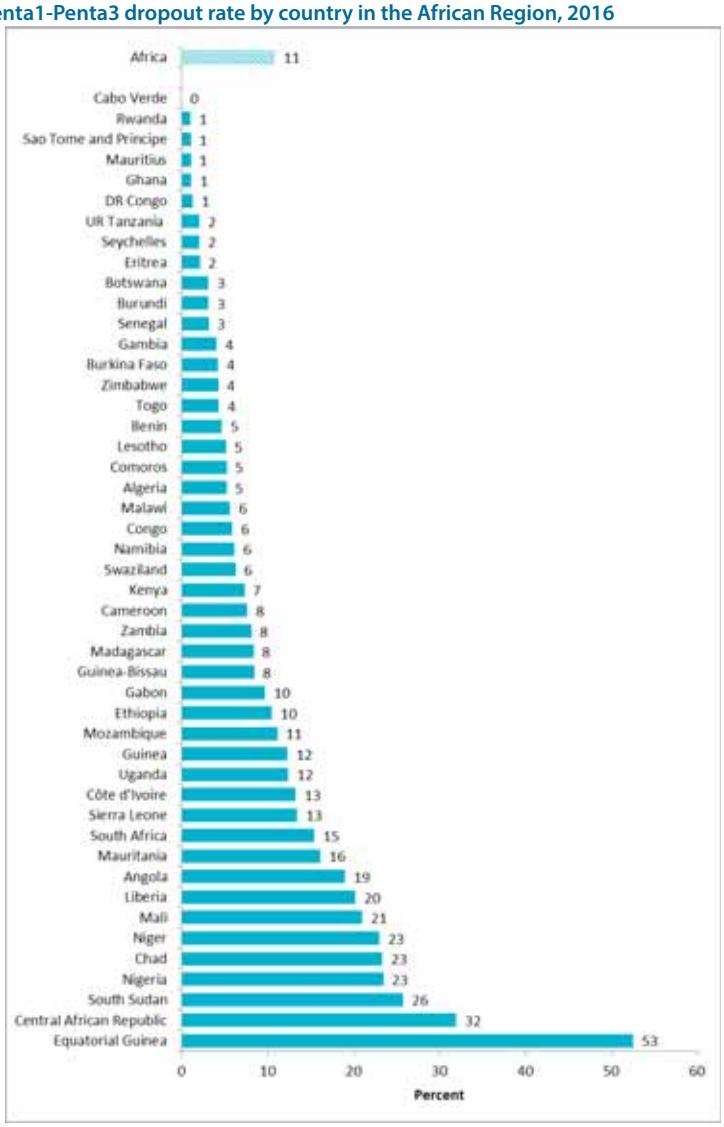
Data source: WHO, 2016

Figure 34 **Trend in percent of children <1year who received up to three doses of Penta vaccine in the African Region**



Data source: WHO

Figure 35 Penta1-Penta3 dropout rate by country in the African Region, 2016



Data source: WHO, 2016

Polio

The global polio eradication initiative aims to achieve a polio free world. The initiative has included routine immunization against poliovirus as one of its core strategies for achieving a polio free world. Other strategies are supplementary immunization activities, mop-up campaigns, and disease surveillance. Worryingly however, progress with routine polio immunization has been rather slow in the African Region. After increasing fairly rapidly from 55% in 2000 to 74% in 2010, coverage of polio immunization (Polio3) declined to 72% in 2011 and has remained fairly stagnant since then.

Polio immunization coverage varied quite markedly between countries in the Region, with the absolute gap between the top and bottom countries as high as 79 percentage points. Equatorial Guinea had the lowest polio immunization coverage in 2016 (20%) followed by South Sudan (31%), and Guinea (42%). In these three countries, the trend in coverage of polio immunization is towards a substantial decline, with the coverage during the period 2011 - 2016 declining by up to 67% in Equatorial Guinea, 76% in South Sudan, and 41% in Guinea. There were also declines in 16 other countries during the period 2011 – 2016, but the substantial ones were in Malawi (by 16%), Angola and Kenya (10%), Mauritania (9%), Mali (7%), Lesotho and Sierra Leone (5%), and South Africa, Algeria and DRC (4%). Coverage of polio immunization in some of the countries was, on the whole, remarkable. In 2016, polio immunization coverage was 90% or more in 19 countries, with the coverage near-universal in 9 countries: Rwanda (99%), Seychelles (96%), Mauritius (96%), Sao Tome and Principe (95%), Botswana (96%), Eritrea (95%), The Gambia (95%), Ghana (95%), and Cabo Verde (95%).

Figure 36 Penta 3 coverage (%) by WHO region

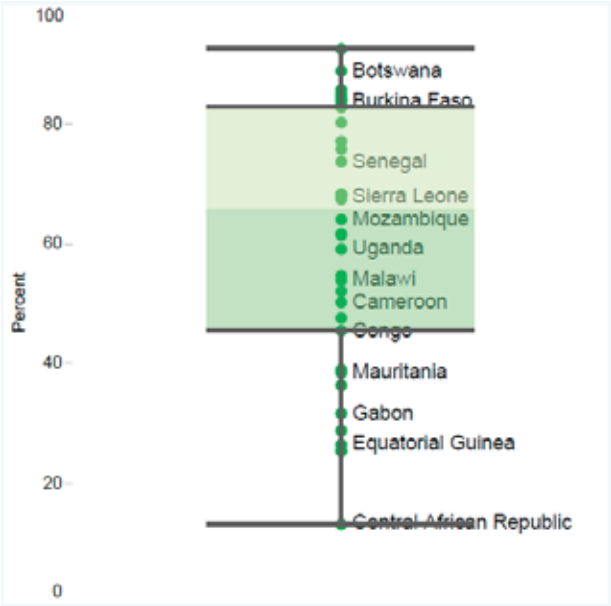
Data source: WHO, 2016

Table 11 Coverage (%) of routine vaccines by WHO region

	BCG	Polio	MCV	DTP3
Africa	81	73	72	74
Eastern Mediterranean	87	80	77	80
South-East Asia	89	87	87	88
Europe	91	94	93	92
Americas	95	92	92	91
Western Pacific	95	95	96	97
Global	88	85	85	86

Data source: WHO, 2016

Figure 37 Percent of children 12–23 months who received all the routine vaccine doses during 2010-2015 in the African Region

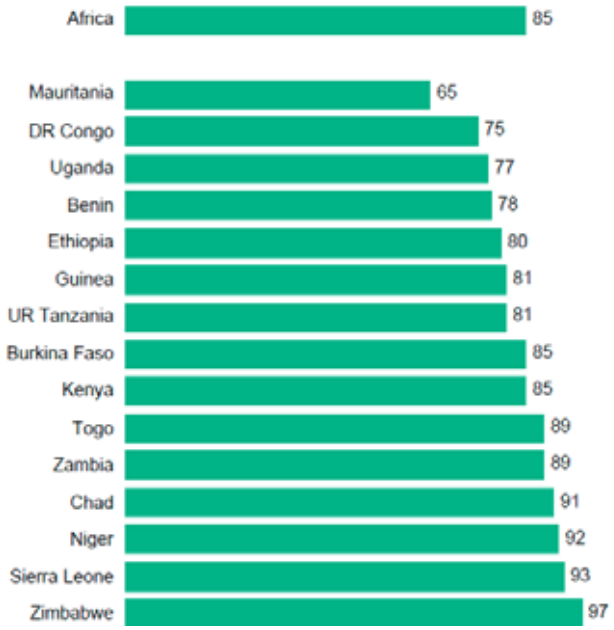


Data source: WHO

Full immunization

Reliable data to assess the percentage of children who received all the routine vaccines were not available. Similarly, data were largely lacking for children who did not receive any of the vaccines. During the period 2010–2015, full immunization coverage in the Region ranged from as low as 12% to 91%.

Figure 38 Percentage of facilities that reported the availability of immunization services by country in the African Region

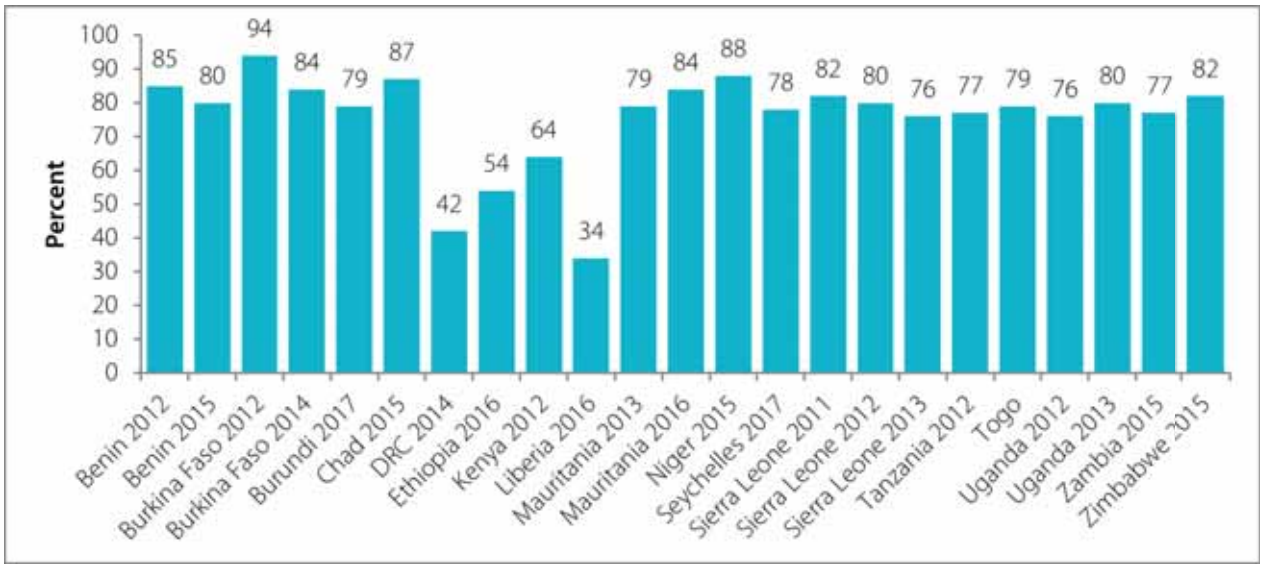


Data source: SARA, 2012-2016

The availability of services for immunization

Facility assessment surveys done during the period 2012 – 2016 in 15 countries indicate that immunization services are offered by the great majority (85%) of the health facilities in the countries. Zimbabwe had the highest percentage of facilities that indicated offering immunization services (97%), followed by Sierra Leone (93%), Niger (92%), Chad (91%), and Zambia and Togo (each 89%). Mauritania had the lowest proportion of facilities that indicated availability of immunization services (65%), followed by DRC (75%), Uganda (77%), Benin (78%), Ethiopia (80%), Guinea (81%), United Republic of Tanzania (81%), and Kenya and Burkina Faso (each 85%).

Figure 39 Mean availability of items necessary for providing immunization services by country in the African Region



Data source: SARA surveys

Table 12 Penta1 and penta3 coverage by year and country in the African Region

	DPT/Penta3							Penta1	Penta1-Penta3 dropout
	2010	2011	2012	2013	2014	2015	2016	2016	2016
Algeria	95	95	95	95	95	95	91	96	-5.2
Angola	77	71	75	77	64	64	64	79	-19.0
Benin	76	75	80	77	78	82	82	86	-4.7
Botswana	95	95	95	95	95	95	95	98	-3.1
Burkina Faso	91	91	90	88	91	91	91	95	-4.2
Burundi	96	96	96	96	95	94	94	97	-3.1
Côte d'Ivoire	99	90	94	93	95	93	96	96	0.0
Cabo Verde	84	82	85	89	87	84	85	92	-7.6
Cameroon	45	47	47	23	47	47	47	69	-31.9
Central African Republic	39	33	40	39	37	46	46	60	-23.3
Chad	74	83	86	87	87	91	91	96	-5.2
Comoros	74	82	85	85	90	80	80	85	-5.9
Congo	85	62	82	80	76	83	85	98	-13.3
Democratic Republic of the Congo	60	74	75	74	80	81	79	80	-1.3
Equatorial Guinea	44	41	24	3	20	16	19	40	-52.5
Eritrea	90	96	94	94	94	95	95	97	-2.1
Ethiopia	61	65	69	72	77	77	77	86	-10.5
Gabon	67	75	82	79	70	80	75	83	-9.6
Gambia	97	96	98	97	96	97	95	99	-4.0
Ghana	94	91	92	90	98	88	93	94	-1.1
Guinea	64	63	62	63	51	54	57	65	-12.3
Guinea-Bissau	83	86	87	87	87	87	87	95	-8.4
Kenya	90	96	94	87	92	89	89	96	-7.3
Lesotho	93	96	95	93	93	93	93	98	-5.1
Liberia	70	77	80	76	50	52	79	99	-20.2
Madagascar	70	73	70	74	73	69	77	84	-8.3
Malawi	93	97	96	89	91	88	84	89	-5.6
Mali	73	66	66	69	73	64	68	86	-20.9
Mauritania	64	75	80	80	84	73	73	87	-16.1
Mauritius	99	98	98	98	97	97	96	97	-1.0
Mozambique	74	76	76	78	79	80	80	90	-11.1
Namibia	83	82	84	89	88	92	92	98	-6.1
Niger	70	75	71	67	68	65	67	87	-23.0
Nigeria	54	48	42	46	49	49	49	64	-23.4
Rwanda	97	97	98	98	98	98	98	99	-1.0
Sao Tome and Principe	98	96	96	97	95	96	96	97	-1.0
Senegal	89	92	91	92	89	89	93	96	-3.1
Seychelles	99	99	98	98	99	97	96	98	-2.0
Sierra Leone	86	89	91	92	83	86	84	97	-13.4
South Africa	72	69	65	73	77	75	66	78	-15.4
South Sudan		61	59	45	39	31	26	35	-25.7
Swaziland	89	91	95	98	98	90	90	96	-6.3
Togo	83	85	84	84	87	88	89	93	-4.3
Uganda	80	82	78	78	78	78	78	89	-12.4
United Republic of Tanzania	91	90	92	91	97	98	97	99	-2.0
Zambia	83	81	78	79	86	90	91	99	-8.1
Zimbabwe	89	93	95	95	91	87	90	94	-4.3

Source: WHO

Table 13 Proportion of children < 1 year who received up to three doses of polio 3 vaccine by country in the African Region

	2010	2011	2012	2013	2014	2015	2016	Rate of change
Algeria	95	95	95	95	95	95	91	-4.3
Angola	81	73	75	67	68	70	66	-10.1
Benin	77	77	80	73	74	78	78	1.3
Botswana	96	96	96	96	96	96	96	0.0
Burkina Faso	90	90	90	89	91	91	91	1.1
Burundi	94	95	96	96	95	94	94	-1.1
Cabo Verde	83	80	85	88	86	83	83	3.7
Cameroon	46	47	47	23	47	47	47	0.0
Central African Republic	43	40	51	46	44	52	44	9.5
Chad	82	85	85	85	87	92	92	7.9
Comoros	72	69	61	85	90	80	80	14.8
Congo	81	58	83	79	76	81	80	32.2
Côte d'Ivoire	99	90	94	93	95	93	95	5.4
Democratic Republic of the Congo	76	77	76	74	79	78	74	-4.0
Equatorial Guinea	59	39	30	30	24	17	20	-66.8
Eritrea	90	96	94	94	94	95	95	-1.0
Ethiopia	69	70	70	70	75	75	75	6.9
Gabon	68	75	80	77	68	79	74	-1.3
Gambia	97	95	98	96	97	96	95	0.0
Ghana	94	91	91	91	93	88	95	4.3
Guinea	62	63	63	63	42	42	42	-40.5
Guinea-Bissau	82	85	87	87	87	87	87	2.3
Kenya	90	97	94	94	93	83	88	-9.7
Lesotho	92	95	93	90	90	90	90	-5.4
Liberia	71	77	80	75	49	52	79	2.6
Madagascar	70	73	71	73	73	71	75	2.7
Malawi	86	97	95	89	87	88	83	-15.6
Mali	77	72	72	70	74	66	67	-7.2
Mauritania	52	73	80	80	84	67	67	-8.6
Mauritius	99	98	98	98	98	98	96	-2.1
Mozambique	73	73	73	78	79	80	80	9.2
Namibia	83	85	84	89	88	92	92	7.9
Niger	75	40	71	56	67	65	67	51.6
Nigeria	54	48	42	46	49	49	49	2.1
Rwanda	93	93	98	98	98	99	99	6.3
Sao Tome and Principe	98	96	96	97	95	96	96	0.0
Senegal	76	89	83	89	85	85	92	3.3
Seychelles	99	99	98	98	99	97	96	-3.1
Sierra Leone	84	88	91	92	83	86	84	-4.7
South Africa	72	69	65	73	77	75	66	-4.4
South Sudan		66	64	50	44	41	31	-75.6
Swaziland	89	85	92	98	98	84	90	5.7
Togo	83	85	84	84	85	88	89	4.6
Uganda	79	82	82	82	82	82	82	0.0
United Republic of Tanzania	94	88	90	91	97	96	93	5.5
Zambia	80	83	70	74	78	90	87	4.7
Zimbabwe	89	93	95	95	92	88	90	-3.3
African Region	74	72	72	72	73	74	73	1.4

Source: WHO

Table 14 Coverage of BCG and Measles vaccine by country in the African Region, 2016

	BCG	MCV
Algeria	99	94
Angola	58	49
Benin	96	74
Botswana	98	97
Burkina Faso	98	88
Burundi	93	93
Cabo Verde	70	78
Cameroon	74	49
Central African Republic	56	58
Chad	94	99
Comoros	85	80
Congo	95	77
Côte d'Ivoire	96	92
Democratic Republic of the Congo	80	77
Equatorial Guinea	97	93
Eritrea	75	70
Ethiopia	48	30
Gabon	94	64
Gambia	98	97
Ghana	94	89
Guinea	72	54
Guinea-Bissau	94	81
Kenya	99	75
Lesotho	98	90
Liberia	97	80
Madagascar	70	58
Malawi	86	81
Mali	92	75
Mauritania	85	70
Mauritius	98	92
Mozambique	95	91
Namibia	94	85
Niger	77	74
Nigeria	64	51
Rwanda	99	95
Sao Tome and Principe	92	93
Senegal	97	93
Seychelles	99	97
Sierra Leone	92	83
South Africa	37	20
South Sudan	74	75
Swaziland	97	89
Togo	79	87
Uganda	93	82
United Republic of Tanzania	99	90
Zambia	99	93
Zimbabwe	95	95
African Region	81	72

Source: WHO, 2016

4.2 Child Nutrition

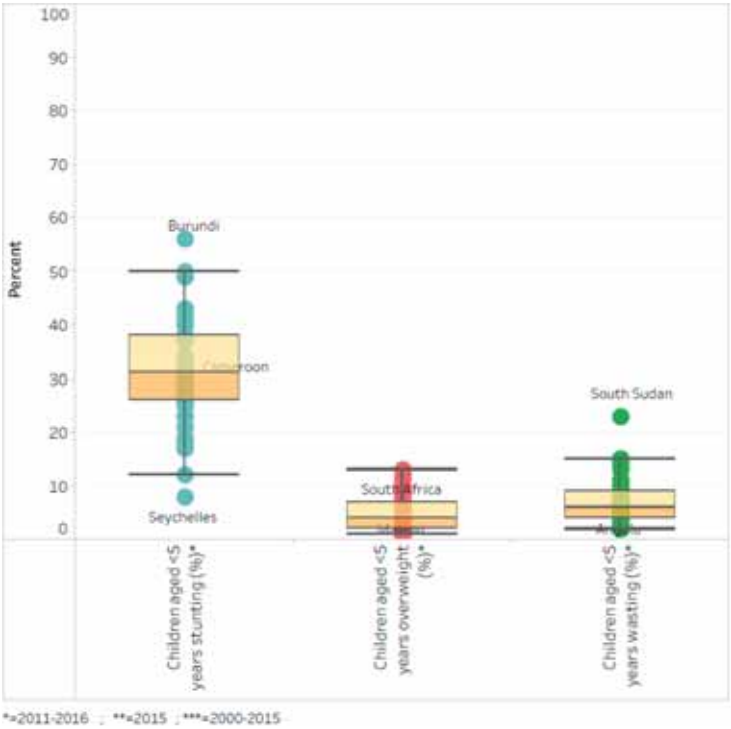
The primary focus of maternal, infant and young child nutrition monitoring is on the first critical 1000 days of life which includes pregnancy and the first 2 years of life. It recognizes the importance of maternal nutrition before and during pregnancy. Hence, the global framework for monitoring maternal, infant and young child nutrition includes six primary targets to be achieved by 2025 for which countries are expected to monitor and report their progress[1].

- A 40% reduction of the global number of children under five who are stunted
- A 50% reduction of anaemia in women of reproductive age
- A 30% reduction of low birth weight
- Halting the increase in overweight among children
- At least 50% increase in the rate of exclusive breastfeeding in the first six months
- Reduce and maintain childhood wasting to less than 5%

However, there is shortage of data in the African Region for monitoring the nutritional status of women of child bearing age, infants and young children. Countries are mostly dependent on population surveys such as Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS) that occur once every 3-7 years. These surveys report nutrition status among women of children bearing age and among under-five children, but data for under-five children are not disaggregated by age to facilitate effective monitoring of nutrition status in the first 1000 days of life. There is an underutilization of the existing health information management system in countries for the collection and use of nutritional data.

Country-specific data used in this chapter are from the 2017 report on Nutrition Report in the WHO African Region which compiled data from population surveys available until 2016.

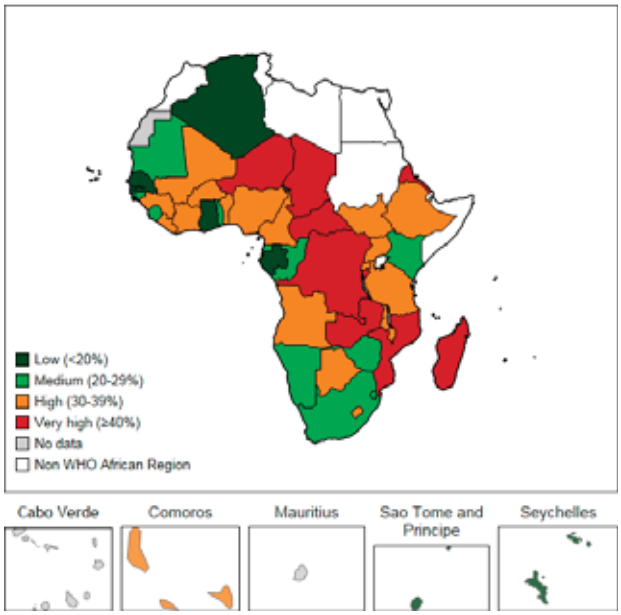
Figure 40 Rates of stunting, wasting and overweight among children < 5years in the African Region



Data source: UNICEF, 2011-2016

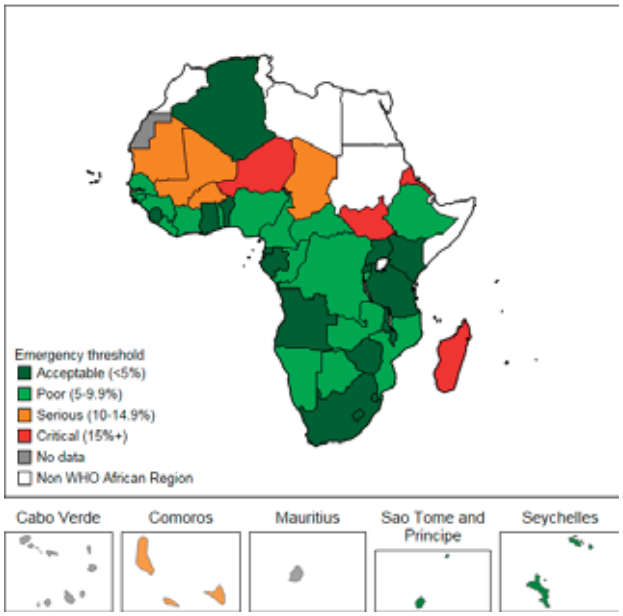
1 WHO 2014. Indicators for the global monitoring framework on maternal, infant and young child nutrition. Available online as: http://www.who.int/nutrition/topics/proposed_indicators_framework/en/

Figure 41 Percent of children < 5 years who are stunted in the African Region



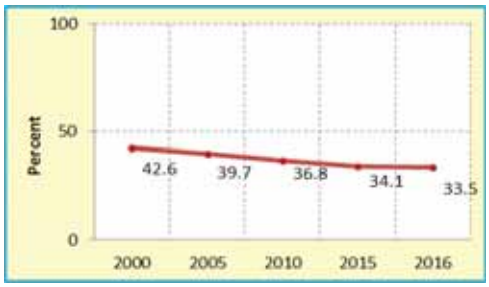
Data source: WHO, ANR 2017

Figure 42 Percent of children <5 years who are wasted in the African Region



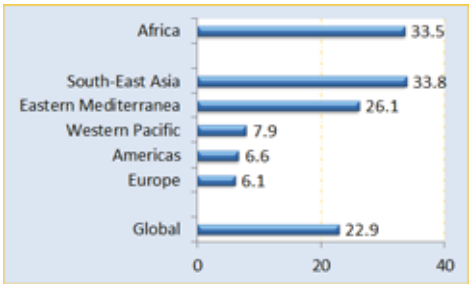
Data source: WHO, ANR 2017

Figure 43 Percent of children <5 years who are stunted in the African Region



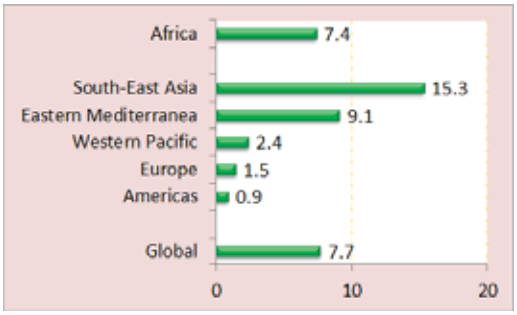
Data source: WHO, 2016

Figure 44 Percent of children <5years who are stunted by WHO region



Data source: WHO, 2016

Figure 45 Percent of children <5 years who are wasted by WHO region



Data source: WHO, 2016

Nutritional status of children <5 years

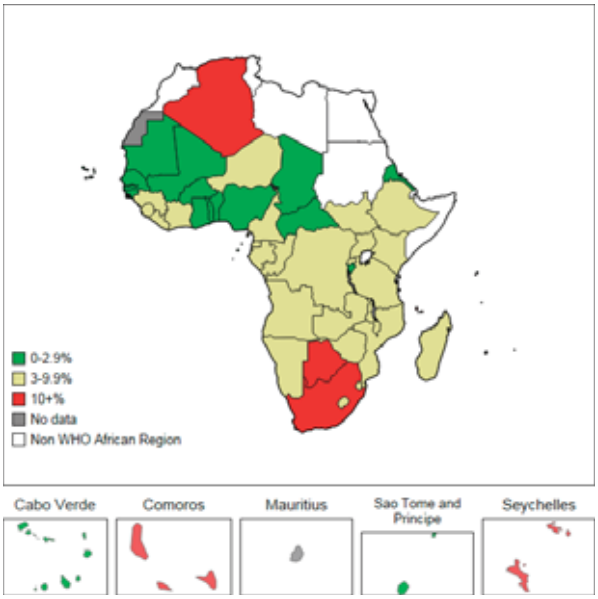
The UNICEF, WHO and the World Bank inter-agency team regularly publish joint global and regional estimates of child malnutrition on 3 indicators: stunting, overweight and wasting. The joint estimates, published in September 2017, reveal worldwide insufficient progress to reach the World Health Assembly targets set for 2025 and the SDGs set for 2030[2].

The stunting rate in the African Region has declined slowly. During the period 2000-2016, the stunting rate among children <5 years declined on average by 1.3% annually from 38.3% [CI: 36.0%, 40.5%] in 2000 to 31.2% [CI: 28.8%, 33.6%] in 2016. In absolute terms however, the number of stunted children <5 years in the Africa Region actually increased from 50.4 million [CI: 47.4million, 53.4 million] in 2000 to 59.0 million [CI: 54.5 million, 63.5 million] in 2016. There are large inter-country differences in rates of stunting in the Region. In 2016 for instance, the stunting rate ranged from as low as 7.9% in Seychelles to as high as 57.5% in Burundi (median: 31.4%; IQR: 25.5% – 37.9%).

The rate of wasting among children <5 years was 7.4% [CI: 6.1%, 8.9%] in 2016; this is high but close to the global target of 5%. There were also large differences between countries in the prevalence of child wasting, with the rate ranging from 2.0% in Swaziland to 22.7% in South Sudan with a median of 6.1% (IQR: 4.3% - 98%). Of the 45 countries in the Region with data on child wasting, up to 27 of them (60.0%) had child wasting rates above

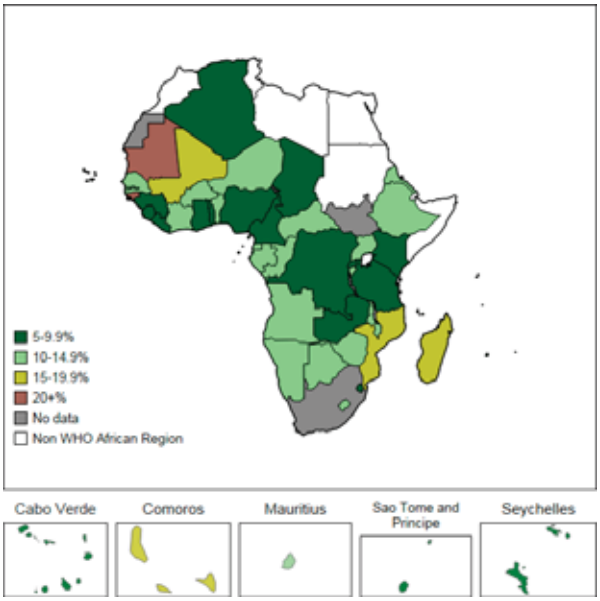
2 Levels and trends in child malnutrition. UNICEF / WHO / WORLD BANK group joint child malnutrition estimates key findings of the 2017 edition. http://www.who.int/nutgrowthdb/jme_brochoure2017.pdf - accessed 19 September 2017

Figure 46 Percent of children <5 years who are overweight in the African Region



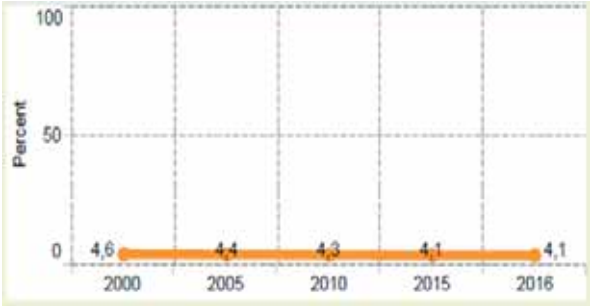
Data source: WHO Regional office for Africa, 2017

Figure 47 Percent of children with low birthweights in the African Region



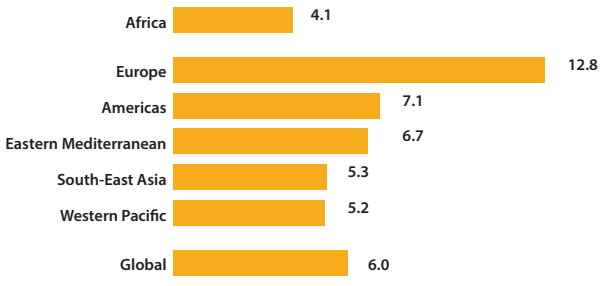
Data source: WHO Regional office for Africa, 2017

Figure 48 Percent of children <5 years who are verweight in the African Region



Data source: UNICEF, 2016

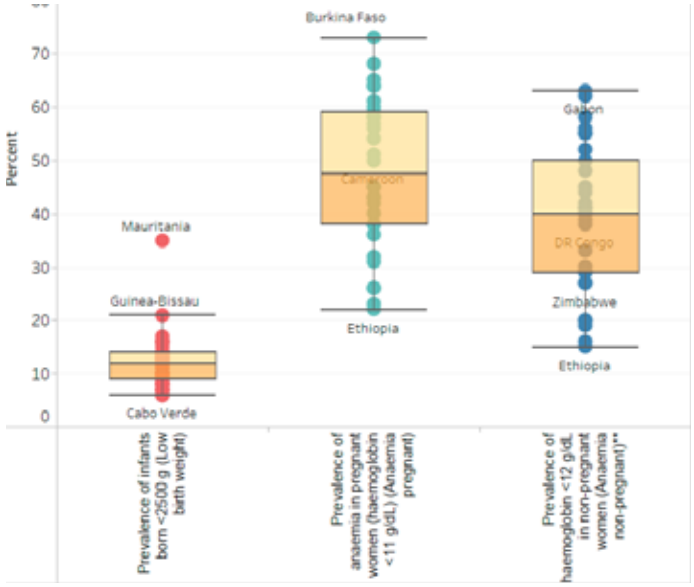
Figure 49 Percent of children <5 years who are overweight by WHO region



Data source: UNICEF, 2016

the 5% global target. According to the 2017 edition of the UNICEF/WHO/World Bank malnutrition estimates, the number of overweight children under 5 in Africa has increased by nearly 50% since 2000. This runs counter to the target of "no increase in overweight" and deserves a call to action. The rate however varied substantially by country, ranging from 0.9% in Senegal to 12.4% in Algeria (median: 4.1%; IQR: 2.5–7.4). During the period 2001–2016, it was ≥10% in five countries: Algeria, Botswana, Comoros, Seychelles and South Africa; and 7.5–9.9% in six countries: Gabon, Equatorial Guinea, Mozambique, Rwanda, Sierra Leone and Swaziland. Benin, Burkina Faso, Central African Republic, Eritrea, Guinea-Bissau, Mali, Mauritania, Nigeria, São Tome and Principe, Senegal and Togo had the lowest rates of overweight among the under-five children (<2.5%). When compared with the other WHO regions, the rate of overweight among children <5 years in the African Region was much lower. For instance, the rate in Europe was 12.8% and in Americas was 7.1%.

Figure 50 Prevalence of low birthweight and anaemia among women of childbearing age in the African Region



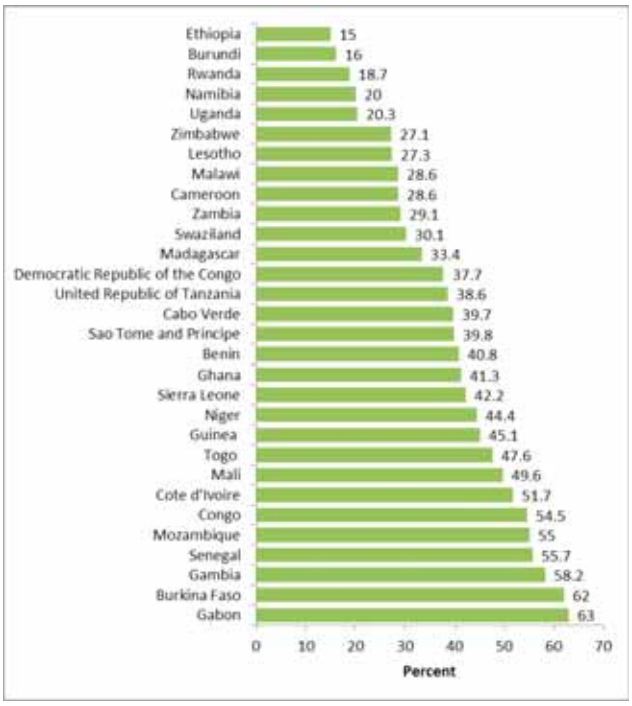
Data source: WHO, ANR 2017

Low birthweight and anaemia among pregnant women

Low birthweight

The WHO African Region has a high prevalence of low birthweight, defined as birthweight <2.5kg regardless of the gestational age. During the period 2000-2015, the rate of low birth weight ranged from 6–34.7% (median: 11.7%; IQR: 8.6–13.7%) but data were not available to assess the progress towards the global target for low birthweight. Mauritania had the highest rate of low birthweight (34.7%), followed by Guinea-Bissau (21.3 %) and Mozambique (16.9 %), while Algeria, Cabo Verde and Rwanda had the lowest rate in the Region (6%).

Figure 51 Prevalence of anaemia in non-pregnant, non-lactating women by country in the African Region



Data source: WHO, ANR 2017

Anaemia among women of childbearing age

Anaemia, defined as haemoglobin level <11g/dl, is quite common among women of childbearing age in the African Region. During the period 2003–2016, the prevalence of anaemia among non-pregnant, non-lactating women ranged from 22% in Ethiopia to as high as 72.5% in Burkina Faso (median: 47.5%; IQR: 38.3–58.5%).

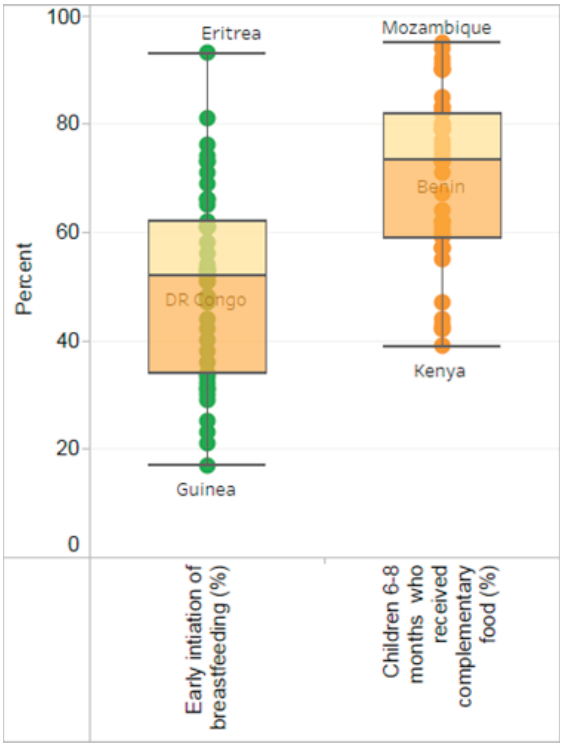
Aggregated data for anaemia in non-pregnant, non-lactating women were available for only 30 of the 47 countries in the Region. These cover a very wide period from 2003–2015. The data show that the prevalence of anaemia among the non-pregnant, non-lactating women is very high, with the prevalence rate ranging from 15% in Ethiopia to 63% in Gabon (Median 39.8%; IQR: 28.6–49.1%).

Breastfeeding

The UNICEF database only has aggregated data on early initiation and exclusive breastfeeding for the period 2011–016. The data suggest that the breastfeeding practices in the African Region are quite poor.

During the period 2011-2016, just over half of the babies in the Region (51%) were started on mother's breast milk within one hour of birth, and 41.5% were exclusively breastfed in the first 6 months after birth. Of the 46 countries with data on exclusive breastfeeding, 28 (61%) had rates below the 50% global target, with exclusive breastfeeding rates particularly low in Chad (0.3%), Gabon (6%), and Equatorial Guinea (7.4%). Trend data were not available to assess progress towards the global nutrition targets.

Figure 52 Rates (%) of early initiation of breastfeeding and complementary feeding



Data source: UNICEF, SOWC 2017

Table 15 Rates of child nutrition indicators (%) by country in the African Region

			2011-2016					2015	2011-2016
	Low birth-weight (%)	Early initiation of breastfeed-ing (%)	Exclusive breast-feed-ing <6 months (%)	Introduction to solid, semi-solid or soft foods 6–8 months (%)	Stunting (%)	Overweight (%)	Wasting (%)	Vitamin A supplemen-tation, full coverage (%)	Prevalence of anaemia in pregnant women (hb <11 g/dL)
Algeria	6	35.7	25.7	28.2	11.7	12.4	4.1	–	
Angola	12	48.3	37.5	–	37.6	3.3	4.9	14	
Benin	15	46.6	41.4	73	34	1.7	4.5	95	42.2
Botswana	13	40	20.3	–	31.4	11.2	7.2	57	
Burkina Faso	14.1	41.6	50.1	59	27.3	1.2	7.6	99	72.5
Burundi	12.9	73.6	83.1	69.7	55.9	1.4	5.1	71	26
Cabo Verde	6	72.7	59.6	–	–	–	–	–	43.2
Cameroon	11	31.2	28.2	82.7	31.7	6.7	5.2	99	49.9
CAR	13.7	43.5	34.3	59.1	40.7	1.8	7.4	3	
Chad	19.9	23	0.3	59	39.9	2.5	13	85	
Comoros	25	33.7	12.1	80.7	32.1	10.9	11.1	12	
Congo	13	25.3	32.9	84	21.2	5.9	8.2	99	58.4
Côte d'Ivoire	17	30.8	12.1	64	29.6	3.2	7.6	72	63.6
Democratic Republic of the Congo	9.5	51.9	47.6	79	42.6	4.4	8.1	94	43.4
Equatorial Guinea	13	20.5	7.4	75.7	26.2	9.7	3.1	–	
Eritrea	14	93.1	68.7	39.9	50.3	1.9	15.3	51	
Ethiopia	20	73	57.5	60	38.4	2.8	9.9	74	22
Gabon	14	32.3	6	82.4	17.5	7.7	3.4	–	57.7
Gambia	10.2	51.5	46.8	46.8	25	3.2	11.1	27	67.9
Ghana	10.7	55.6	52.3	73	18.8	2.6	4.7	28	44.6
Guinea	12	16.6	20.5	43	31.3	3.8	9.9	69	64.9
Guinea-Bissau	11	33.7	52.5	71.3	27.6	2.3	6	87	
Kenya	8	62.2	61.4	80	26	4.1	4	37	
Lesotho	10.7	65.3	66.9	83	33.2	7.4	2.8	–	35.5
Liberia	14	61.2	55.2	46	32.1	3.2	5.6	61	
Madagascar	16	65.8	41.9	89.7	49.2	6.2	15.2	97	38.3
Malawi	13.5	76.3	61.2	88.6	37.1	4.5	2.7	16	37.5
Mali	18	53.3	32.6	41.8	30.4	1.9	13.5	88	59.7
Mauritania	34.7	61.8	41.4	66	27.9	1.3	14.8	83	
Mauritius	14	–	21	–	–	–	–	–	
Mozambique	16.9	69	41	95	43.1	7.9	6.1	99	50.9
Namibia	16	71.2	48.5	80	23.1	4.1	7.1	–	25.6
Niger	27	52.9	23.3	–	42.2	3	10.3	99	58.6
Nigeria	15.2	33.2	17.4	67	32.9	1.6	7.2	76	
Rwanda	7.1	81	87.3	57	36.7	7.7	1.7	96	23.4
Sao Tome and Principe	9.9	38.3	73.8	74.1	17.2	2.4	4	42	55.8
Senegal	18.6	30.5	33.3	63	17	1	7	29	61.4
Seychelles	–	–	–	–	7.9	10.2	4.3	–	
Sierra Leone	10.5	53.8	32	63	37.9	8.9	9.4	97	54
South Africa	–	61.1	31.6	–	27.4	13.3	2.5	–	
South Sudan	–	48.1	45.1	20.9	31.1	6	22.7	–	
Swaziland	8.7	48.3	63.8	89.5	25.5	9	2	–	40.2
Togo	11.1	60.6	57.5	67	27.5	2	6.7	6	64.1
Uganda	11.8	52.5	65.5	67	28.9	3.7	3.6	–	30.6
United Republic of Tanzania	8.4	51.2	59.2	92	34.4	3.6	4.5	87	52.7
Zambia	11	65.8	72.5	82	40	6.2	6.3	–	38.3
Zimbabwe	11	57.6	47.8	91	26.8	5.6	3.2	45	33.1
sub-saharan Africa	–	51	42	71	33.9	3.9	8.4	72	

Data source: WHO, ANR 2017; UNICEF, SOWC 2017 based on DHS and MICS

Care seeking

Care seeking for children with symptoms of pneumonia, fever and diarrhoea is generally poor but improving in the African Region: the average scores for care seeking for symptoms of pneumonia, fever and diarrhoea were 38.3% during the period 2005–2008 and 43.3% during the period 2010–2015.

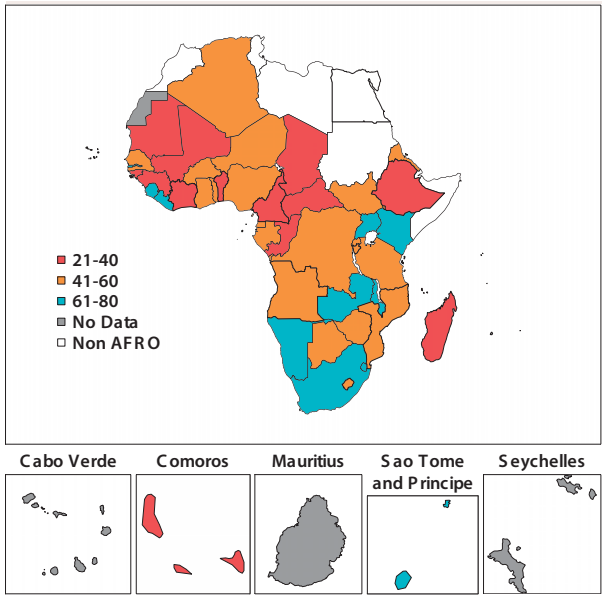
During the period 2010–2016, data on care seeking for children with symptoms of pneumonia, fever and diarrhoea were available in 41 of the 47 countries in the Region. Using predefined criteria, only 10 of the countries (24%) were classified as having good care seeking for children with symptoms of pneumonia, fever and diarrhoea. During the period 2011-2016, care seeking in Chad was poorer than elsewhere in the Region. Care seeking in the Region varied by symptom. In the period 2011–2016 for instance, care seeking was poorer for children with diarrhoea than for children with fever and pneumonia.

Table 16 Percent of children who received prompt care for diarrhoea, pneumonia or fever in the African Region

	2005–2008	2011–2016
Fever	35	57.2
Pneumonia	43	47
Diarrhoea	37	38
Index	38.3	47.4

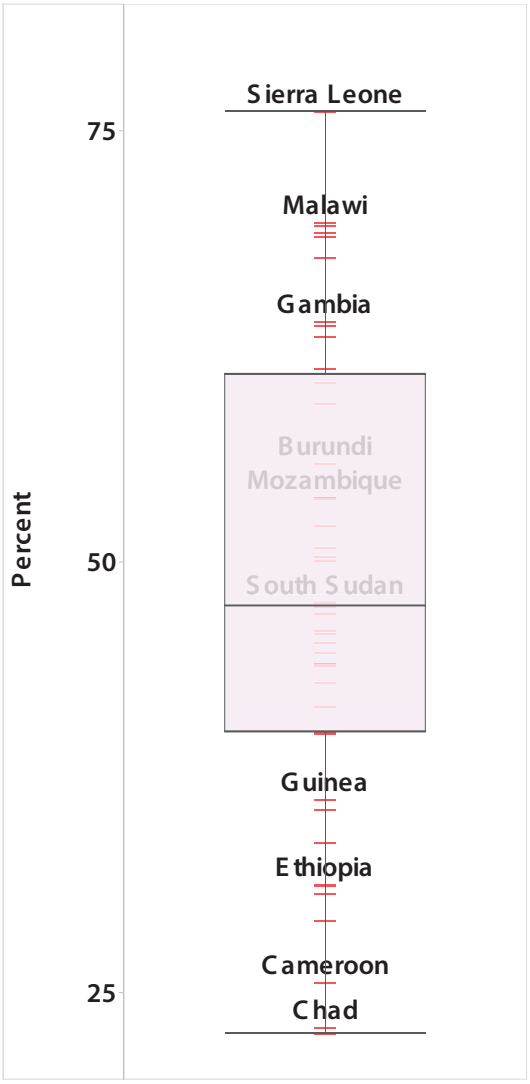
Data source: UNICEF, 2017

Figure 53 Percent of children who received prompt care for diarrhoea, fever or pneumonia in the African Region



Data source: WHO, 2011-2016

Figure 54 Percent of children who received prompt care for diarrhoea, fever or pneumonia in the African Region



Data source: WHO, 2011-2016

Table 17 List of countries with the lowest percentage of children who received prompt treatment for diarrhoea, pneumonia or fever in the African Region

Diarrhoea		Pneumonia		Fever	
Madagascar	14.6	Botswana	14	Chad	22.8
Central African Republic	15.6	Mali	23	Cameroon	32.9
Cameroon	15.8	Benin	23.3	Ethiopia	34.6
Côte d'Ivoire	17.2	Chad	25.8	Mauritania	35.2
Togo	18.6	Cameroon	28.1	Guinea	37.1
Mauritania	18.8	Congo	28.2		
Chad	20.4	Central African Republic	29.8		
Mali	21.6	Ethiopia	29.8		
Algeria	25.3	Mauritania	33.7		
Benin	25.4	Guinea-Bissau	34.3		
Gabon	26.1	Nigeria	34.5		
Rwanda	27.5	Guinea	37.3		
Congo	28	Comoros	38.1		
Ethiopia	29.5	Côte d'Ivoire	38.2		
Senegal	31.6				
Nigeria	33.7				
Guinea	34.1				
Guinea-Bissau	35.1				
Burundi	35.6				
Comoros	37.5				
South Sudan	38.6				
DR Congo	39.1				
Burkina Faso	39.5				
Equatorial Guinea	40.4				

Data source: WHO, 2011-2016

Chapter 5. Adolescent health services

Adolescents are young people between the ages of 10 and 19 years. Their population in the African Region is on the rise: there were 224 million adolescents in the Region at the end of 2015, a number that is projected to double by 2050.

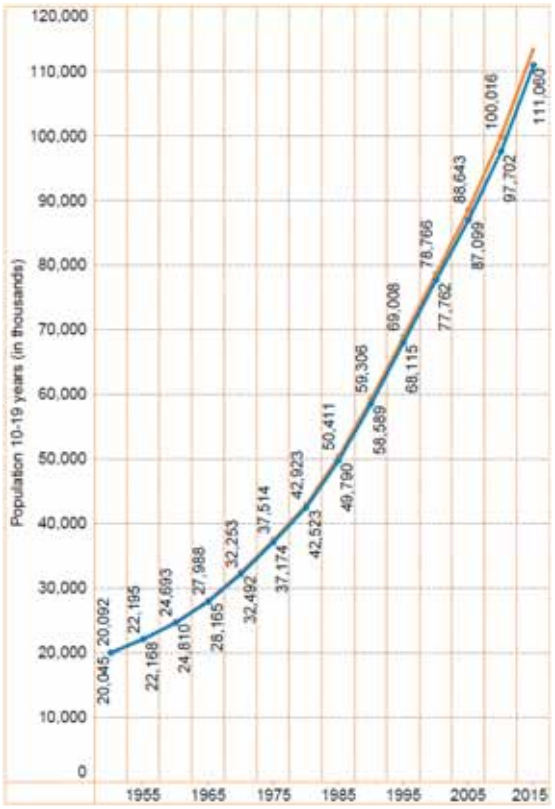
Adolescents are often thought of as a healthy group but this is not the case, especially in the African Region. Adolescents are at an increased risk of mortality and morbidity associated with accidents, suicide, violence, HIV, drugs, pregnancy-related complications and other illnesses that are either preventable or treatable. Many more suffer chronic ill-health and disability. In addition, NCDs and their consequent disabilities have their origins in the unhealthy lifestyles during the adolescent period or earlier.

The WHO Regional Office for Africa recognises the importance of adolescent health in the Region and has prioritised it, making it one of its flagship programmes. Adolescent health is at the core of the Regional Office's recommendation for prevention of occurrence of noncommunicable diseases in the Region. At the centre of this recommendations is a a life-course approach where healthy behaviours that prevent the risk of occurrence of NCDs are promoted from childhood through adolescence to adulthood and old age.

5.1 Adolescent mortality

The global adolescent mortality rate is declining but Africa as a Region is not contributing to that decline; the rate in the Region is increasing instead. During the period 2011-2015, there were 6.4 adolescent deaths per 100 population in the African Region. This represents an increase in adolescent mortality rate from 6.1 per 100 population during the period 2005–2010 and 5.6 during the period 2000–2005. Differences between countries in adolescent mortality rate are quite wide, with the rate in Côte d'Ivoire higher than elsewhere in the Region.

Figure 55 Adolescent population 10–19 by sex in the African Region, 1950-2015



Data source: UN DESA, Population Division 2015

Table 18 Projections of total population, adolescent population 10–19 and proportion of adolescent 10–19 in total population in the African Region, 1990–2050

Year	Total population (thousands)	Total population of adolescent age 10–19 (thousands)	Total adolescents aged 10–19 (% of total population
1990	509 789.2	117 895.5	23.1
1995	584 073.0	137 123.1	23.5
2000	664 355.8	156 528.5	23.6
2005	756 370.2	174 741.3	23.2
2010	864 970.4	187 718.2	22.9
2015	989 173.2	224 718.6	22.7
2020	1 124 127.7	256 352.1	22.8
2025	1 269 605.7	289 610.9	22.8
2030	1 426 285.3	319 719.5	22.4
2035	1 594.181.7	347 008.2	21.8
2040	1 772.241.9	374 706.1	21.1
2045	1 958.308.8	403 442.0	20.6
2050	2 149 987.3	431 968.5	20.1

Data source: UN DESA, Population Division 2015

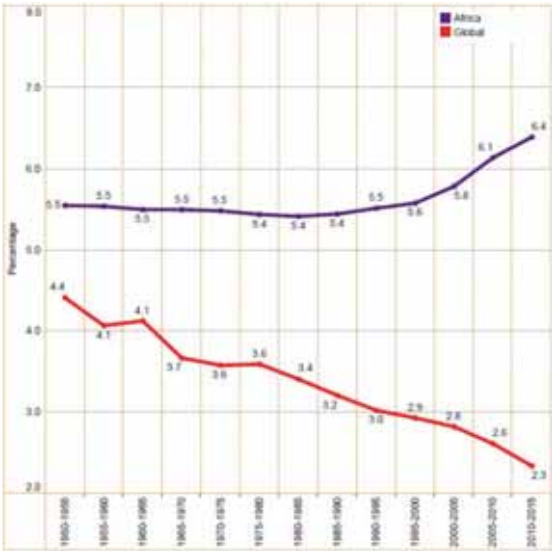
Figure 56 Percentage of adolescent deaths (per 100 total pop.) in the African Region, 2010-2015

Data source: UN DESA, Population Division, 2015)

Figure 57 Percentage of adolescent deaths (per 100 total population) in the African Region, 2010–2015

Data source: UN DESA, Population Division 2015)

Figure 58 Percentage of adolescent deaths (per 100 total population) in the African Region against global deaths, 1980–2015

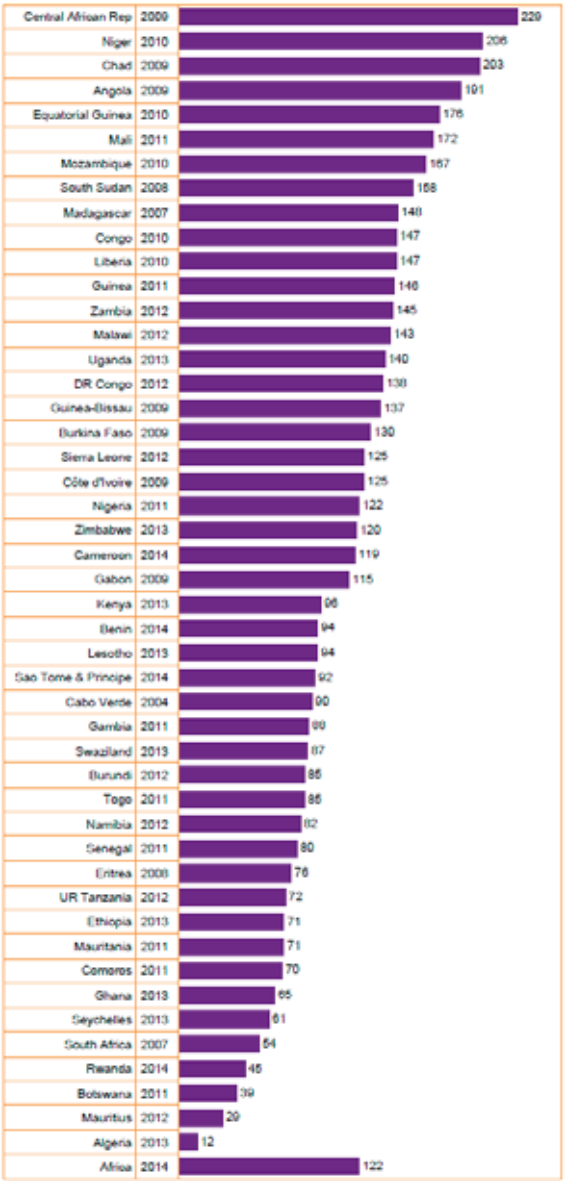


Data source: UN DESA, Population Division, 2015)

5.2 Adolescent sexual and reproductive health

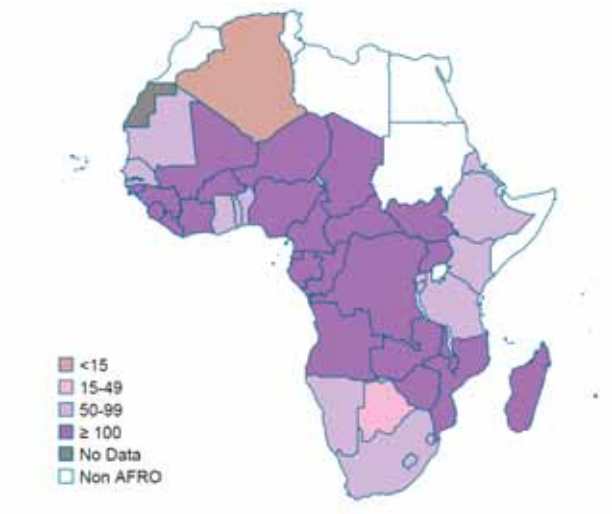
The rate of adolescents giving birth remains high in the African Region at 122/1000 girls aged 15–19 years. However, there is paucity of data for effective monitoring of adolescents reproductive health, with data completely lacking for some countries and for some years. Given that adolescent pregnancy is a major contributor of maternal and child mortality and of increased risk of birth injuries such as obstetric fistula, there is urgent need to improve the availability of data for effective monitoring of adolescent health.

Figure 59 Adolescent birth rate (per 1000 girls aged 15–19 years) in the African Region, 2009–2014



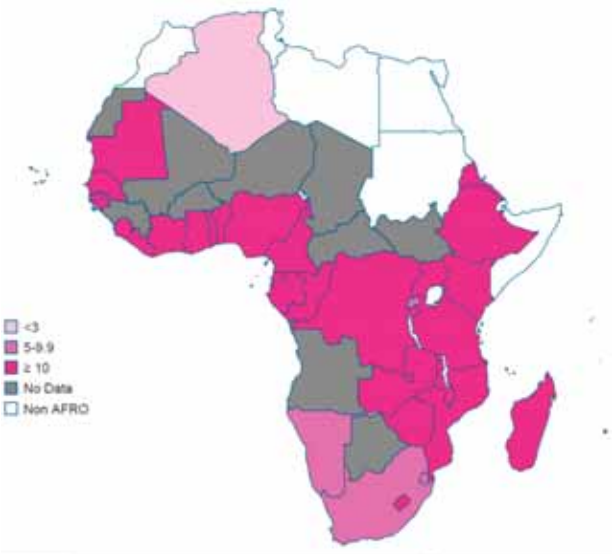
Data source: WHO/UNICEF, 2016

Figure 60 Adolescent birth rate (per 1000 girls aged 15–19 years) in the African Region, 2009–2014



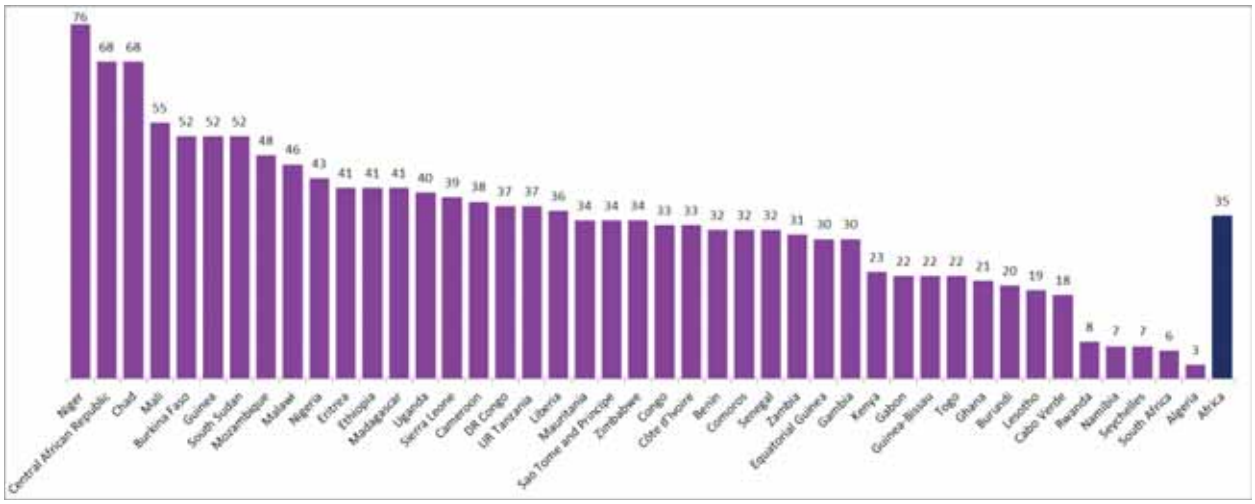
Data source: WHO/UNICEF, 2016

Figure 61 Adolescent married by 18 (%) in the African Region, 2008–2014



Data source: WHO, 2016

Figure 62 Adolescent married by 18 (%) in the African Region, 2008–2014



Data source: WHO, 2016

Chapter 6. Communicable diseases

SDG Target 3.3: By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases.

6.1 HIV/AIDS

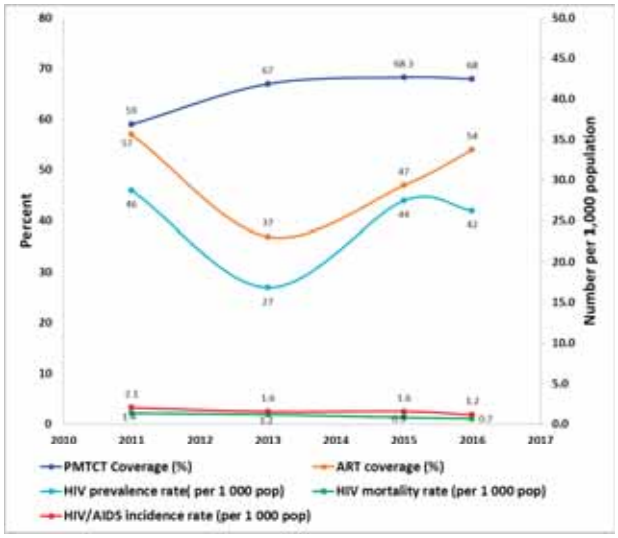
WHO estimates show that the performance of HIV-related indicators in the Region is remarkable and continues to improve steadily. HIV prevalence rate in the Region has mostly stagnated, which should be expected given the rapid increase in recent years in ART coverage and the declines in HIV incidence and HIV-related deaths. These trends suggest that it is feasible to meet goal 3.3 of the SDGs to end the AIDS epidemic by 2030.

HIV incidence

HIV incidence (or incidence rate) refers to the number of new HIV infections in a population at risk of acquiring HIV during a specified time. The rate is expressed as a fraction of the population (percent or per 1000 population). People who were infected before the specified time period are not included in the total estimate of incidence, even if they are still alive. Direct measurement of HIV incidence rate is extremely difficult. Consequently, mathematical models based on HIV prevalence rates are used to estimate the number of new HIV infections. HIV prevalence refers to the proportion of people living with HIV in a population during a period of time (period prevalence) or at a particular date in time (point prevalence).

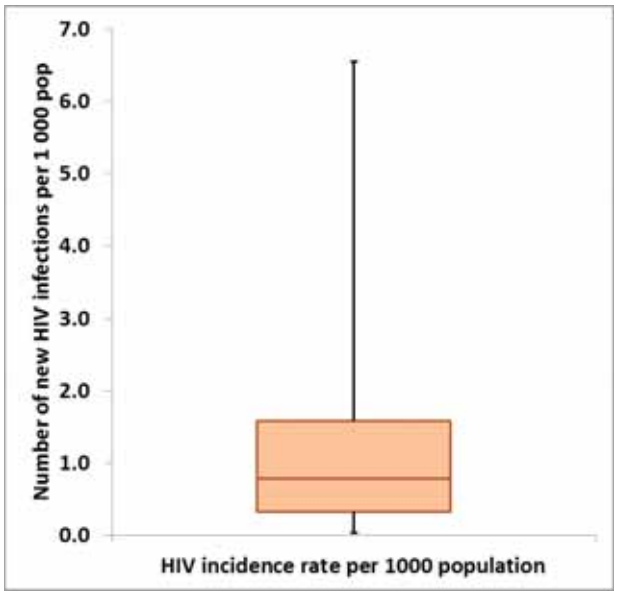
The HIV incidence rate (per 1000 uninfected population) in the Region continued to decline steadily. The rate in 2016 was 1.2 per 1000 uninfected population, down from 2.1 in 2011 (11% average annual rate of decline). In absolute terms however, the incidence rate in 2016 represents about 1.2 million new infections in the Region, which is very high.

Figure 63 Trends in the performance of the HIV indicators in the African Region



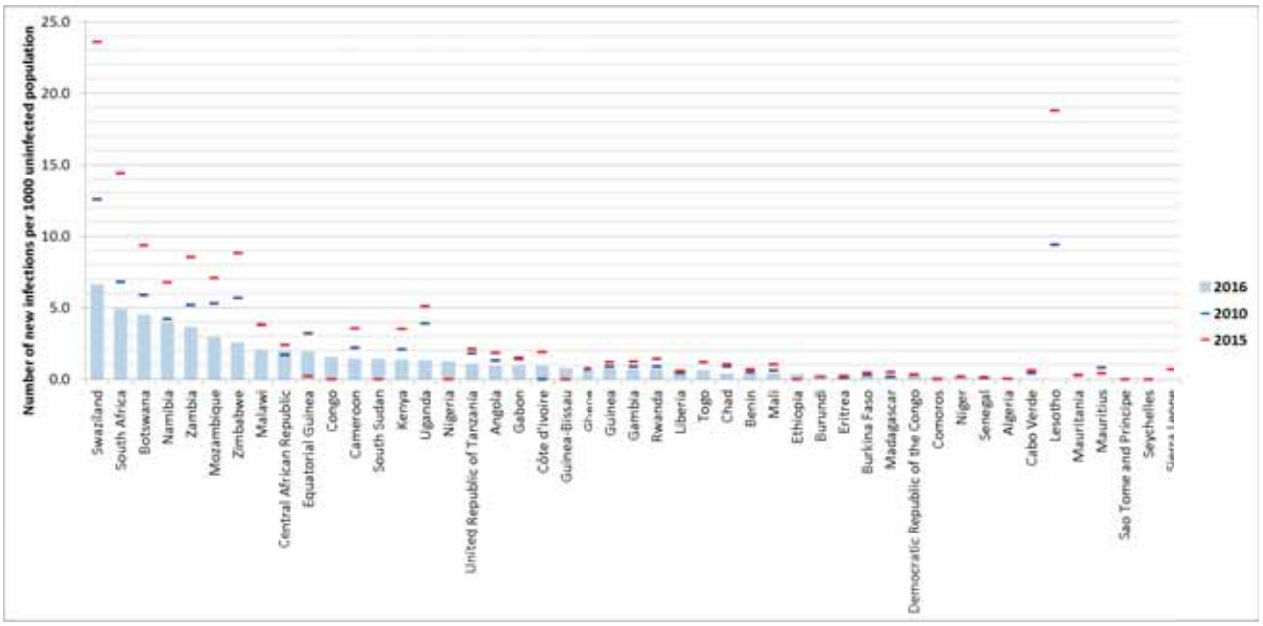
Data source: WHO

Figure 64 Number of new HIV infections per 1000 uninfected population in the African Region



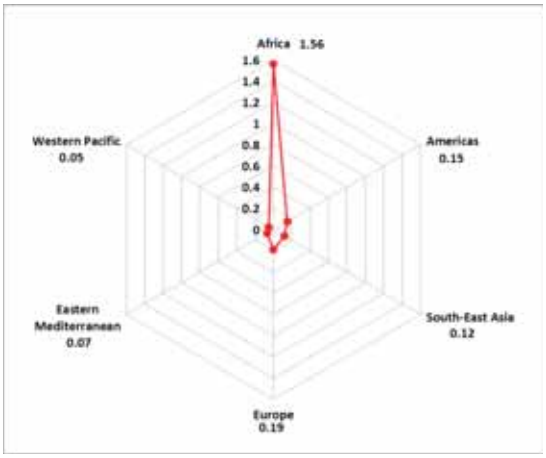
Data source: WHO, 2015

Figure 65 Estimated number of new of HIV infections per 1000 uninfected population by country in the African Region



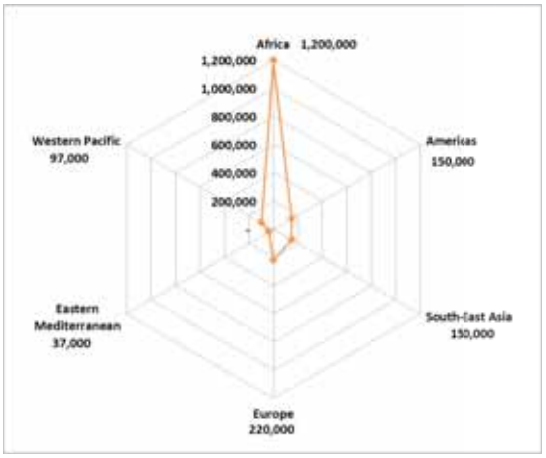
Data source: WHO. The 2016 data were lacking for 7 countries: Cabo Verde, Lesotho, Mauritania, Mauritius, Sao Tome and Principe, Seychelles and Sierra Leone

Figure 66 Number of new HIV infections per 1000 uninfected population WHO region, 2015



Data source: WHO

Figure 67 Absolute number of new HIV infections by WHO region, 2016



Data source: WHO

There are wide differences in the rate of HIV infection between regions of Africa, with the HIV incidence rate in Southern Africa much higher than elsewhere. In 2016, the incidence rate per 1000 uninfected population was particularly high in Swaziland (6.6 or about 6220 new infections) followed by South Africa (4.8 or about 49 776 new infections), Botswana (4.4 or about 7996 new infections), Namibia (3.9 or about 8390 new infections), Zambia (3.6 which is about 52 076 new infections), Mozambique (2.9 or 72 594 new infections) and Zimbabwe (2.5 or 34 207 new infections). These seven countries, together with nine others with incidence rate higher than 1 per 1000 uninfected population (Cameroon, Central African Republic, Congo, Equatorial Guinea, Kenya, Malawi, Nigeria, South Sudan and Uganda) require special focus. Special focus should also be given to the large population countries even if their incidence rates are low as the absolute number of cases they add to the regional pool tends to be large. In 2016 for instance, Tanzania, with a total population of 55 million people and an incidence rate of 1 per 1000 uninfected population, added about 55 000 new HIV cases, and the Democratic Republic of the Congo, with a population of 80 million and an incidence rate of 0.3 per 1000 uninfected population, added about 30 000 new cases.

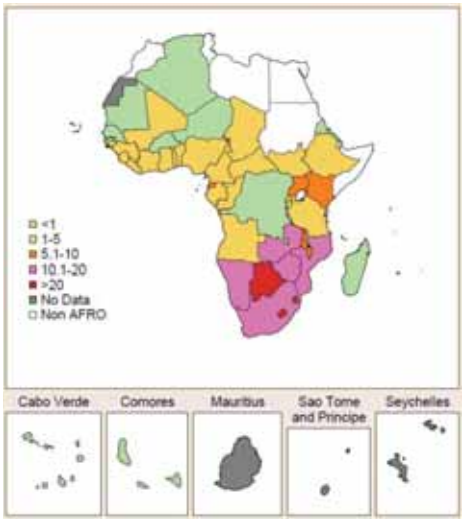
HIV prevalence

WHO estimates suggest that the HIV prevalence rate among individuals aged 15-49 years in the Region is no longer falling and has stagnated at around 4%. The prevalence rate is also much higher when compared to the 0.1–0.5% prevalence rates in other WHO regions.

Given that the incidence of HIV in the Region has gone down quite substantially, the stagnation in the prevalence of HIV rate can largely be attributed to the good performance of the ART programme, as patients on life-long antiretroviral treatment survive longer than would be expected without ART.

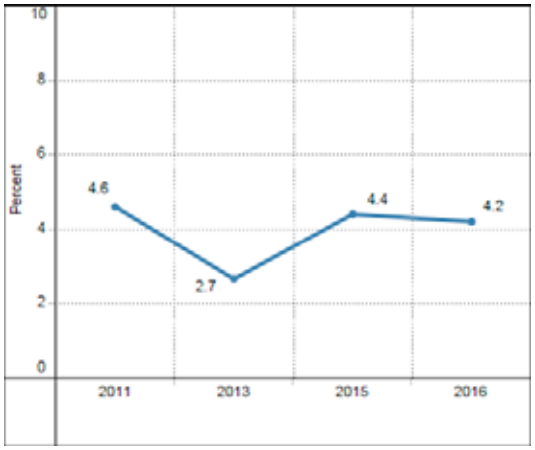
However, the need to further strengthen and sustain efforts for prevention and control of HIV has never been greater. In 2016, an estimated 25.6 million people were living with HIV in the African Region [CI: 22.9–26.6 million]. The recent trend in the rate of new HIV infections in the Region means that over one million new HIV cases are added annually to the pool of surviving HIV patients. With the reduced HIV-related deaths resulting from improvement in the performance of the ART program, the number of people living with HIV can only go upwards and could reach unprecedented levels.

Figure 68 HIV prevalence rate (%) among individuals 15–49 years in the African Region



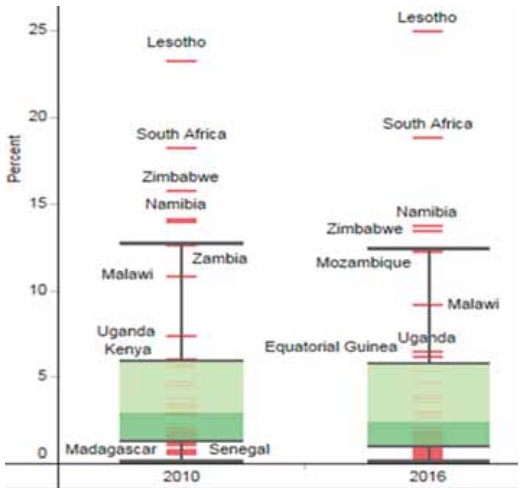
Data source: WHO, 2016

Figure 69 HIV prevalence rate among individuals 15–49 years, by year in the African Region



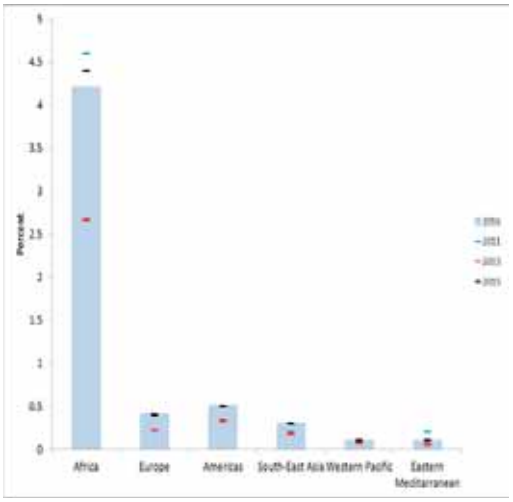
Data source: WHO

Figure 70 HIV prevalence rate (%) among adults 15–49 years in the African Region



Data source: WHO, 2010–2016

Figure 71 HIV prevalence rate among adults 15-49 years by WHO region



Data source: WHO, 2016

Antiretroviral treatment for HIV

Estimates by WHO suggest that the progress and performance of the ART programme in the African Region is good and improving steadily. The absolute number of HIV patients receiving ART increased steadily during the past 10 years. By 2016, an estimated 13.8 million HIV patients were receiving ART, up from an estimate of 2.1 million in 2007. However, the proportion of HIV patients receiving ART is not consistent with the steady increase in the absolute number of HIV patients on ART. After initially increasing from 44% in 2007 to 57% in 2011, the proportion dropped quite drastically to 35% in 2014 before increasing to 47% in 2015. By 2016, over half of the HIV patients in the Region (54%) were receiving life-long antiretroviral treatment. The drop in the ART coverage during the period 2011–2014 could have been due to an increase of the denominator following a change in ART guidelines in 2010 that recommended early initiation of antiretroviral treatment, as opposed to the previous guidelines that recommended antiretroviral treatment only for subjects with advanced HIV disease.

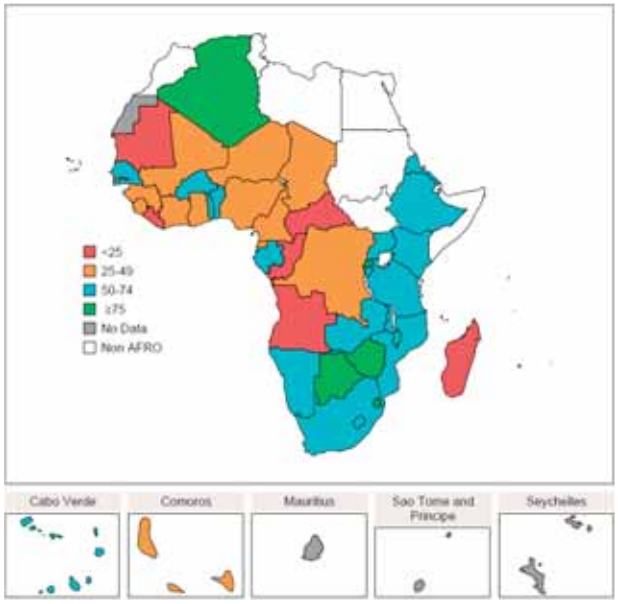
Much work remains, as the proportion of patients receiving ART in 2016 (54%) in the Region is well below the 90% target proposed in the 90-90-90 strategy for ending the HIV pandemic by 2030. There were large differences between countries in the proportion of HIV patients receiving ART. In 2016 for instance, Botswana had the highest percentage of HIV patients receiving ART (83%) followed by Rwanda (80%), Swaziland (79%), Algeria (76%) and Zimbabwe (75%). Special efforts are particularly needed in countries that consistently have very low ART coverage, such as Liberia, Madagascar and South Sudan.

Prevention of mother to child HIV transmission (PMTCT)

Antiretroviral treatment of HIV-positive pregnant women and a short course of antiretroviral drugs for babies soon after birth is one of the key strategies for reducing the risk of HIV transmission from mother to child. Other strategies include appropriate infection prevention practices during pregnancy, labour and delivery; appropriate breastfeeding practices; and measures to prevent HIV acquisition in the general population.

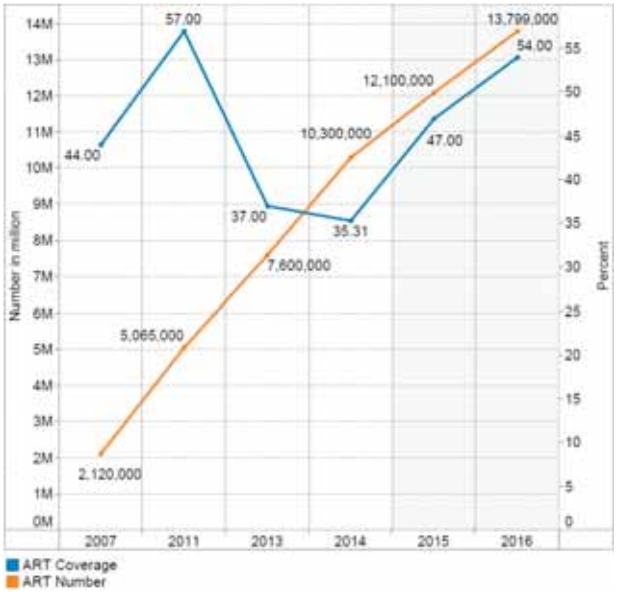
WHO estimates that there were 1 300 900 million HIV positive pregnant women in the African Region in 2016 – a high number. The Inter-Agency Task Team for the Elimination of Mother-to-Child Transmission, which includes WHO, advises that all HIV positive pregnant and breastfeeding women should receive antiretroviral treatment, irrespective of clinical stage of disease or CD4 count. In the African Region however, PMTCT coverage, defined as the percentage of HIV infected pregnant women who received antiretroviral treatment for prevention of mother-to-child transmission of HIV, is not yet universal but the trend is towards a slow but steady increase in coverage. In 2016, about two thirds (68%) of HIV positive

Figure 72 Percent of HIV infected individuals receiving antiretroviral treatment in the African Region



Data source: WHO, 2016

Figure 73 The trend in absolute number and percent of HIV infected individuals receiving antiretroviral treatment



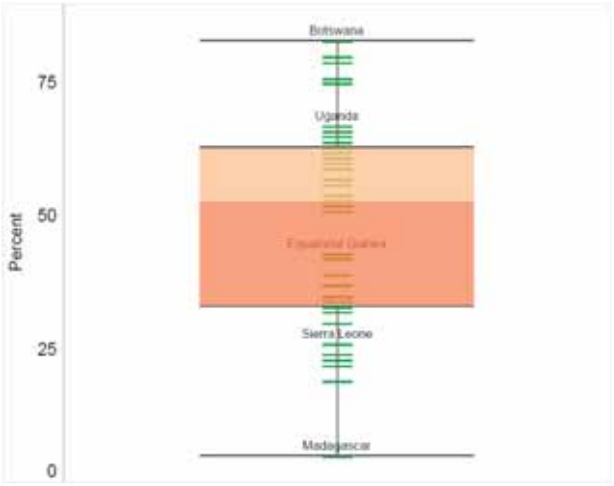
Data source: WHO

Table 19 HIV prevalence rate (%) among adults 15–49 years by country in the African Region

	2010	2016	Rate of change (%) from 2010 baseline value
Algeria	0.1	0.1	0.0
Angola	1.7	1.9	11.1
Benin	1.1	1	-9.5
Botswana	23	21.9	-4.9
Burkina Faso	1.1	0.8	-31.8
Burundi	1.5	1.1	-31.0
Cabo Verde	3.8	2.7	-34.2
Cameroon	0.8	0.8	0.0
Central African Republic	4.6	3.8	-19.1
Chad	4.8	4	-18.2
Comoros	1.6	1.3	-20.8
Congo	0.1	0.1	0.0
Côte d'Ivoire	3	3.1	3.3
Democratic Republic of the Congo	1.2	0.7	-53.9
Equatorial Guinea	5.8	6.2	6.7
Eritrea	0.8	0.6	-28.8
Ethiopia	1.4	1.1	-24.1
Gabon	4.5	3.6	-22.3
Gambia	2.1	1.7	-21.1
Ghana	1.9	1.6	-17.2
Guinea	1.6	1.5	-6.5
Guinea-Bissau	4.4	3.1	-35.0
Kenya	6.1	5.4	-12.2
Lesotho	23.3	25	7.0
Liberia	1.9	1.6	-17.2
Madagascar	0.2	0.2	0.0
Malawi	10.9	9.2	-17.0
Mali	1.3	1	-26.2
Mauritania	0.7	0.5	-33.6
Mauritius			
Mozambique	14	12.3	-12.9
Namibia	14.2	13.8	-2.9
Niger	0.7	0.4	-56.0
Nigeria	3.4	2.9	-15.9
Rwanda	3.5	3.1	-12.1
Sao Tome and Principe			
Senegal	0.6	0.4	-40.5
Seychelles			
Sierra Leone	1.7	1.7	0.0
South Africa	18.3	18.9	3.2
Swaziland	3.2	2.7	-17.0
Togo	27.2	27.2	0.0
Uganda	2.9	2.1	-32.3
United Republic of Tanzania	7.4	6.5	-13.0
Zambia	5.6	4.7	-17.5
Zimbabwe	12.7	12.4	-2.4

Data source: WHO

Figure 74 Percentage of HIV infected individuals receiving antiretroviral treatment in the African Region



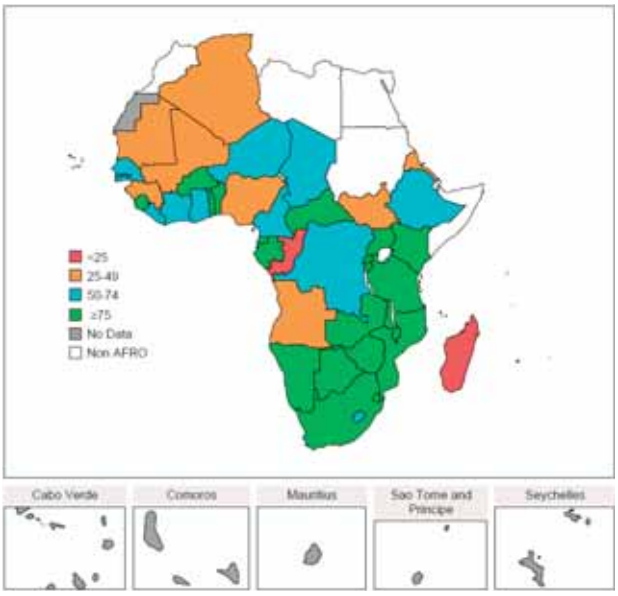
Data source: WHO, 2016

Table 20 Ten countries with the lowest percentage of HIV infected individuals on antiretroviral treatment in the African Region, 2016

	ART coverage (%)
Madagascar	5
South Sudan	10
Liberia	19
Angola	22
Congo	23
Mauritania	23
Central African Republic	24
Sierra Leone	26
Gambia	30
Nigeria	30

Data source: WHO, 2016

Figure 75 PMTCT coverage (%) in the African Region, 2016



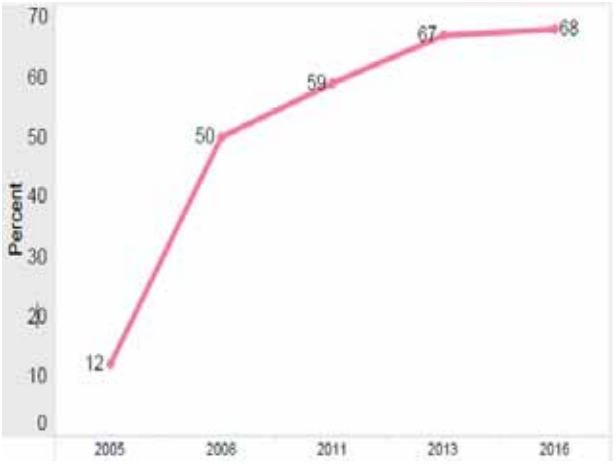
Data source: WHO, 2016

pregnant women in the Region were estimated to have received antiretroviral treatment for PMTCT, up from 50% in 2008.

Intercountry differences in PMTCT coverage are quite pronounced. In 2016, PMTCT coverage was estimated to be near universal (95%) in six countries in the Region: Benin, Botswana, Namibia, South Africa, Swaziland and Uganda. In contrast, coverage was estimated to be lower than 50% in 10 countries, with the coverage particularly low in Madagascar (3%), Congo (16%) and South Sudan (29%).

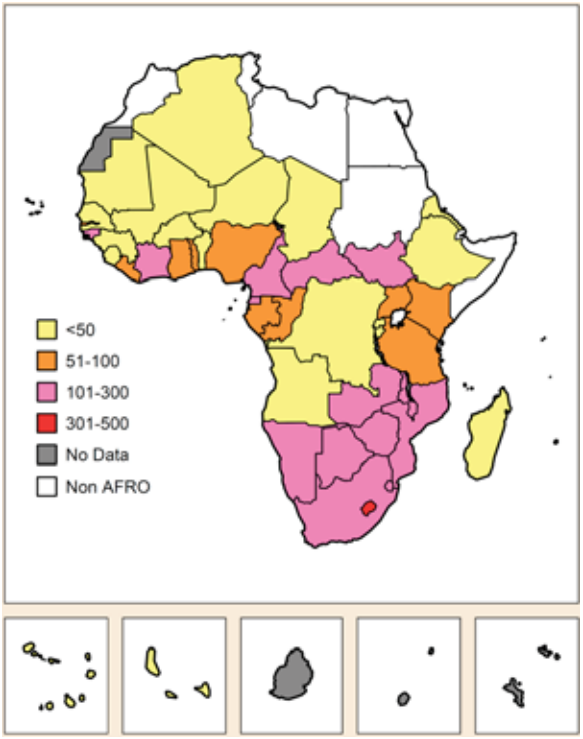
In comparison to the 2013 values, PMTCT coverage was estimated to have increased in all countries in the Region, with the exception of Congo, Ghana and Mozambique. Those countries registered a decline in PMTCT coverage, with the rate in Congo declining by up to 36% from 23% in 2013 to 16% in 2016; Ghana by 10% from 62% in 2013 to 56% in 2016; and Mozambique by 5% from 84% in 2013 to 80% in 2016.

Figure 76 Trends in PMCT coverage (%) in the African Region



Data source: WHO

Figure 77 HIV mortality rate per 100 000 population in the African Region



Data source: WHO, 2016

HIV mortality

HIV mortality rate in the African Region remains high but the trend is towards a steady decline. The mortality rate per 100 000 population declined by an average annual rate of 13% from 139 in 2011 to 71 in 2016. Globally, the Region makes the biggest contribution to the total global HIV-related deaths. In 2015 for instance, an estimated 800,000 out of the 1.1 million global HIV-related deaths (72%) were from the WHO African Region. The Region accounted for up to three quarters (76%) of the global HIV-related deaths in 2016, with an estimated 721,100 out of the 949,600 global HIV-related deaths.

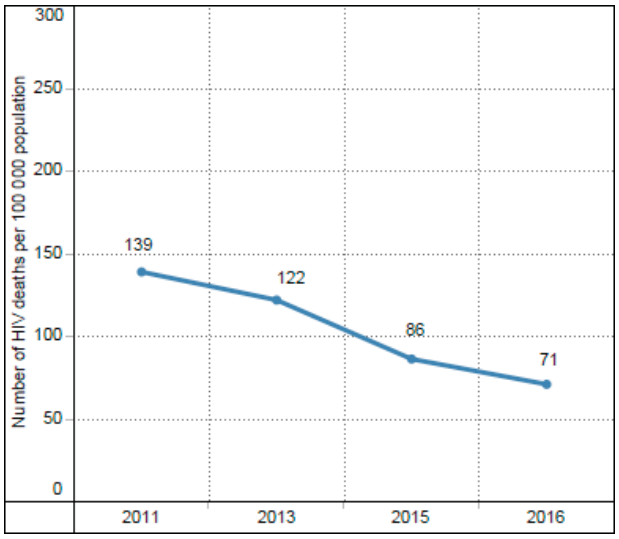
HIV-related mortality in the African Region differs quite substantially by country. In 2016, Lesotho had the highest HIV-related mortality rate per 100 000 population (458.2) followed by Swaziland (299.0), Mozambique (215.6) and South Africa (200). Algeria had the lowest rate per 100 000 population (0.5), followed by Madagascar (6.4), Senegal (12.1) and Comoros (12.3). The 2016 data were not available for three countries: Mauritius, Sao Tome and Principe, and Seychelles. There were big drops in the absolute number of HIV-related deaths in 29 of the 44 countries with data in 2016. For instance, the absolute number of HIV-related deaths dropped by up to 92% in Algeria, 81% in Uganda, 79% in Burundi, and 77% in the United Republic of Tanzania. The absolute number however increased in six countries: Angola (by 16%), Guinea (by 11%), Lesotho (by 15%), Mali (by 10%), Senegal (by 24%), and Sierra Leone (by 7%). The absolute number remained the same in Benin, Comoros, Eritrea, The Gambia, Mauritania and South Sudan.

Table 21 PMTCT coverage (%) by country in the African Region, 2016

	PMTCT		
	2005	2013	2016
Algeria			49.0
Angola	3.0	39.0	44.0
Benin	31.0	45.0	95.0
Botswana	49.0	95.0	95.0
Burkina Faso	10.0	62.0	83.0
Burundi	6.0	58.0	84.0
Cabo Verde		95.0	
Cameroon	12.0	61.0	74.0
Central African Republic	9.0	33.0	81.0
Chad	1.0	19.0	63.0
Comoros			
Congo	29.0	23.0	16.0
Côte d'Ivoire	10.0	75.0	73.0
Democratic Republic of the Congo			
Equatorial Guinea	32.0	5.0	90.0
Eritrea			37.0
Ethiopia	5.0	55.0	69.0
Gabon	5.0	62.0	76.0
The Gambia			69.0
Ghana	7.0	62.0	56.0
Guinea	2.0	46.0	43.0
Guinea-Bissau			
Kenya	21.0	63.0	80.0
Lesotho	12.0	53.0	66.0
Liberia	5.0	69.0	70.0
Madagascar			3.0
Malawi	7.0	79.0	84.0
Mali			35.0
Mauritania			34.0
Mauritius			
Mozambique	9.0	84.0	80.0
Namibia		90.0	95.0
Niger			52.0
Nigeria	1.0	27.0	32.0
Rwanda	44.0	56.0	82.0
Sao Tome and Principe			
Senegal			55.0
Seychelles			
Sierra Leone	2.0	93.0	87.0
South Africa	26.0	90.0	95.0
Swaziland	50.0	95.0	95.0
Togo	13.0	75.0	86.0
Uganda	16.0	75.0	95.0
United Republic of Tanzania			
Zambia	18.0	76.0	83.0
Zimbabwe	12.0	78.0	93.0

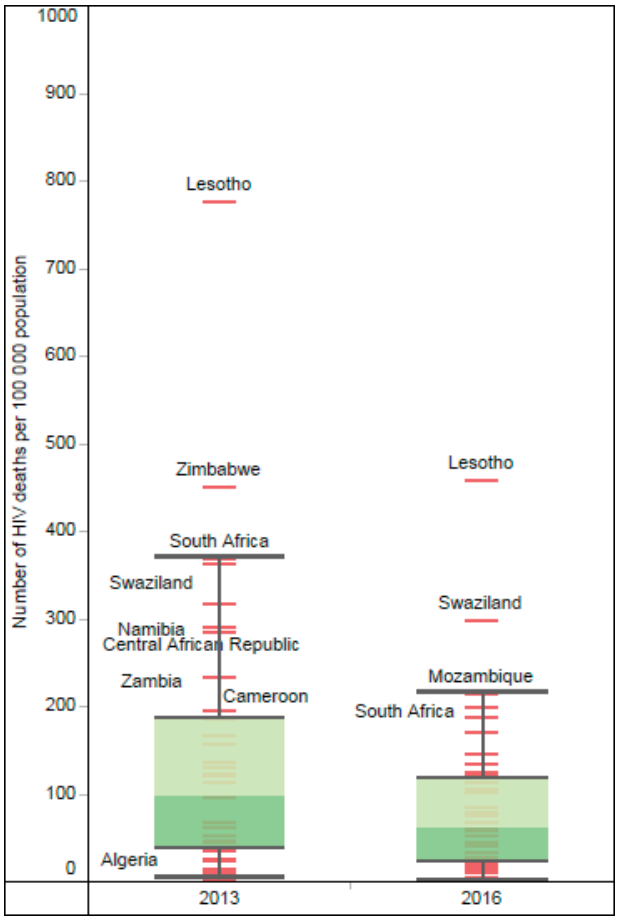
Data source: WHO

Figure 78 Trend in HIV mortality rate per 100 000 population in the African Region



Data source: WHO, 2016

Figure 79 HIV mortality rate per 100 000 population in the African Region



Data source: WHO, 2016

Table 22 HIV-related mortality by country in the African Region

	HIV mortality rate per 100 000 population		Number of HIV deaths		% change in absolute number of HIV deaths
	2013	2016	2010	2016	
Algeria	3.5	0.5	500	200	-92
Angola	54	42.5	9,400	11,000	16
Benin	26	21.5	2,400	2,400	0
Botswana	286	169.2	5,800	3,900	-40
Burkina Faso	34	16.6	5,700	3,100	-61
Burundi	46	25.1	6,400	2,900	-79
Cabo Verde	196	121.2	27,000	29,000	7
Cameroon	9	18.9	200	100	-69
Central African Republic	234	146	9,500	7,300	-26
Chad	114	19.3	3,600	2,800	-25
Comoros	–	12.3	100	100	0
Congo	121	80.1	3,700	3,800	3
Côte d'Ivoire	138	107.5	29,000	25,000	-15
Democratic Republic of the Congo	45	23.8	35,000	19,000	-61
Equatorial Guinea	–	114.9	1,100	1,000	-10
Eritrea	15	18.6	1,000	1,000	0
Ethiopia	48	19.6	39,000	20,000	-67
Gabon	124	85	2,900	1,500	-66
The Gambia	24	53.5	1,100	1,100	0
Ghana	39	53.5	25,000	15,000	-51
Guinea	46	44.8	5,200	5,800	11
Guinea-Bissau	134	105.9	2,300	2,000	-14
Kenya	132	76.1	64,000	36,000	-58
Lesotho	778	458.2	8,500	9,900	15
Liberia	62	60.6	3,900	2,800	-33
Madagascar	24	6.4	1,400	1,600	13
Malawi	292	135.2	45,000	24,000	-63
Mali	36	33.6	5,500	6,100	10
Mauritania	–	24	1,000	1,000	0
Mauritius	69	–	–	–	–
Mozambique	319	215.6	81,000	62,000	-27
Namibia	286	171	4,800	4,300	-11
Niger	16	16.4	4,000	3,400	-16
Nigeria	121	85.5	200,000	160,000	-22
Rwanda	39	27.7	5,600	3,300	-53
Sao Tome and Principe	122	–	–	–	–
Senegal	12	12.1	1,500	1,900	24
Seychelles	–	–	–	–	–
Sierra Leone	52	42.4	2,600	2,800	7
South Africa	370	200	210,000	110,000	-65
South Sudan	112	102	13,000	13,000	0
Swaziland	364	299	6,500	3,900	-51
Togo	97	68	7,600	5,100	-40
Uganda	168	69.4	63,000	28,000	-81
United Republic of Tanzania	159	59.8	71,000	33,000	-77
Zambia	186	125.6	29,000	21,000	-32
Zimbabwe	451	187.8	59,000	30,000	-68
Africa	122	71	1,103,800	721,100	-43

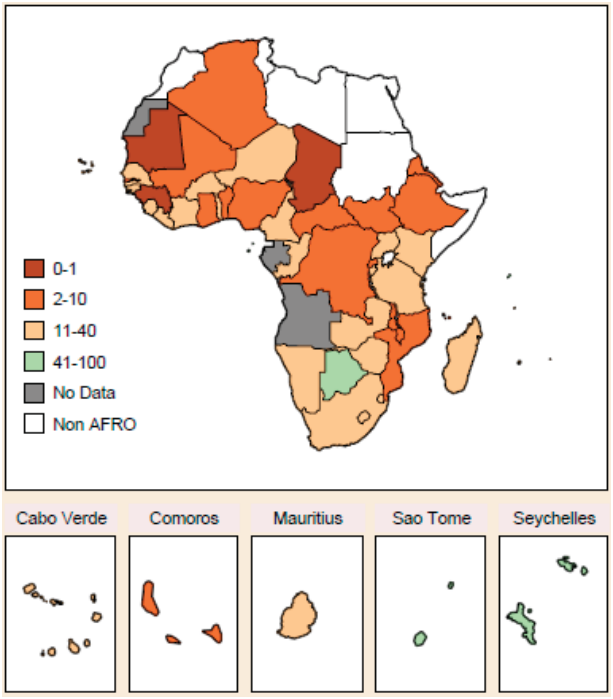
Source: WHO

HIV counselling and testing

HIV counselling and testing (HCT) is the entry point for HIV treatment and care. It is one of the core objectives of the 90–90–90 strategy designed to bring the HIV epidemic under control. The aim of the 90-90-90 strategy is to have at least 90% of all people living with HIV know their HIV status; have at least 90% of all people diagnosed with HIV receive sustained life-long antiretroviral therapy; and have viral suppression in at least 90% of those receiving antiretroviral therapy. Data for HCT in the African Region are available only up to the year 2014, though missing those for Angola, Guinea, South Africa and Swaziland.

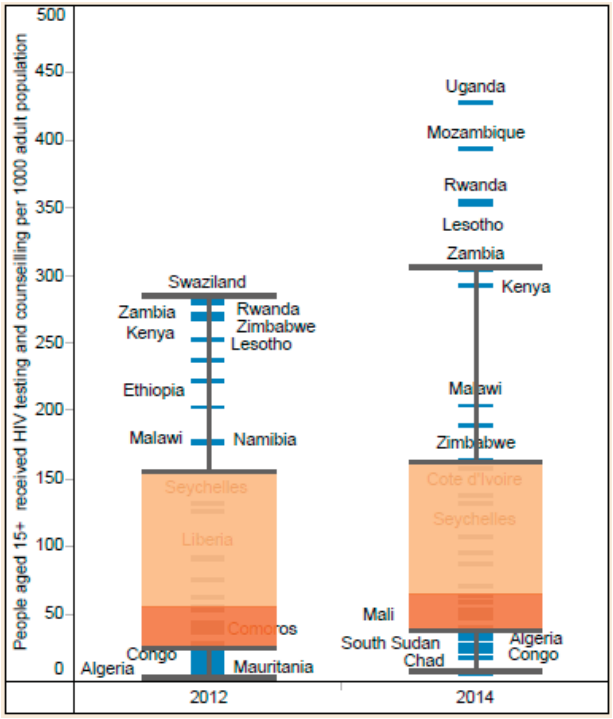
In 2014, uptake of HCT in the African Region was only 116.1 per 1 000 population or 11.6% – this is way below the 90% target in the 90-90-90 strategy. The uptake in 2014 however represents a 20% improvement from 95.5 per 1 000 population in 2012. HCT uptake was poor in all the countries in the Region. The uptake per 1 000 population was better in Uganda (429), followed by Mozambique (395), Rwanda (356), Lesotho (354), and Zambia (305). Republic of Congo had the lowest uptake of HCT, with only 7 people receiving HCT per 1 000 population, followed by Mauritania (9 per 1 000 population), and Madagascar and Chad (19 per 1 000 population).

Figure 80 **Number of people aged 15 years and above who received HIV counselling and testing per 1000 population in the African Region, 2014**



Data source: WHO, 2014

Figure 81 **Number of people aged 15 years and above who received HIV counselling and testing per 1000 population in the African Region, 2012 and 2014**



Data source: WHO, 2012–2014

Table 23 **Number of people aged 15 years and above who received HIV counselling and testing per 1000 population by country in the African Region**

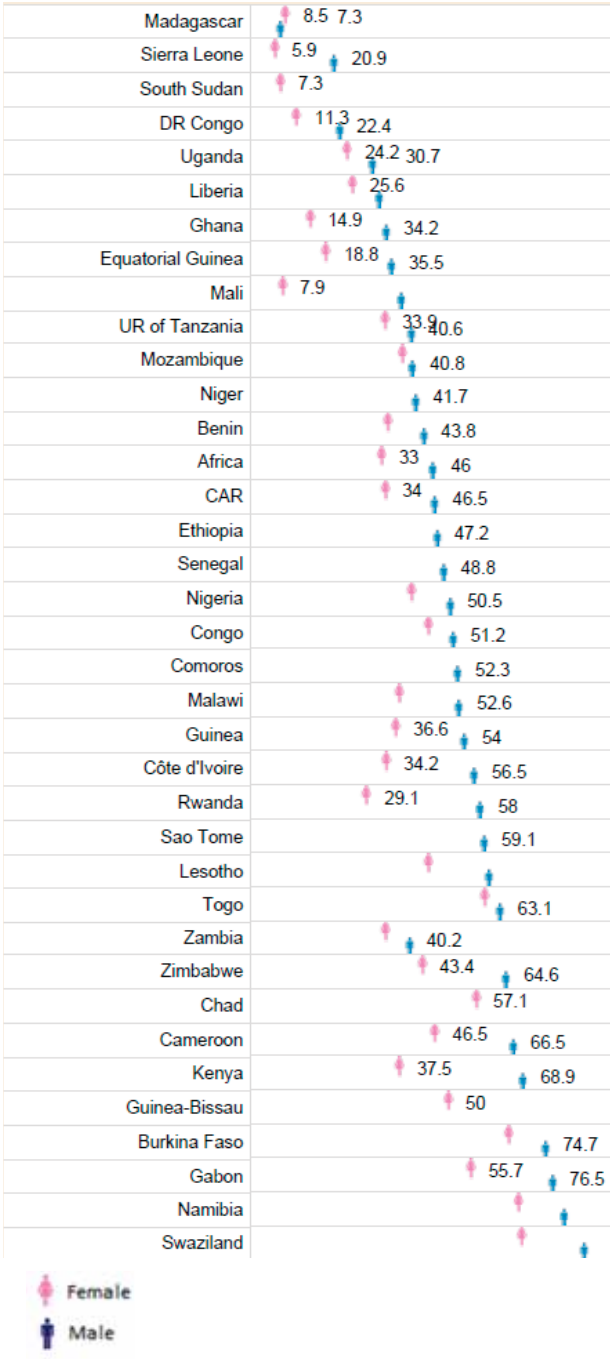
	2012	2014
Algeria	2	23
Angola	57	–
Benin	56	64
Botswana	116	232
Burkina Faso	88	92
Burundi	127	190
Cabo Verde	91	138
Cameroon	54	65
Central African Republic	41	51
Chad	22	28
Comoros	27	19
Congo	11	53
Côte d'Ivoire	8	7
Democratic Republic of the Congo	15	41
Equatorial Guinea	44	36
Eritrea	204	159
Ethiopia	38	51
Gabon	29	65
The Gambia	55	48
Ghana	18	–
Guinea	45	71
Guinea-Bissau	253	294
Kenya	239	354
Lesotho	93	–
Liberia	20	19
Madagascar	178	205
Malawi	7.0	79.0
Mali	12	32
Mauritania	7	9
Mauritius	57	54
Mozambique	–	395
Namibia	177	132
Niger	42	50
Nigeria	40	60
Rwanda	281	356
Sao Tome and Principe	114	132
Senegal	63	97
Seychelles	133	108
Sierra Leone	160	91
South Africa	223	25
South Sudan	15	16
Swaziland	285	1
Togo	76	429
Uganda	–	305
United Republic of Tanzania	45	165
Zambia	270	–
Zimbabwe	273	–

Data source: WHO, 2016

Condom use among young people with multiple partners

Rate of condom use among young people aged 15-24 years with multiple partners in the African Region is low and differs quite substantially from country to country and by sex.

Figure 82 **Rates of condom use among young people (15–24 years) with multiple partners by country in the African Region, 2010– 2014**



Data source: WHO, 2010–2014

6.2 Malaria

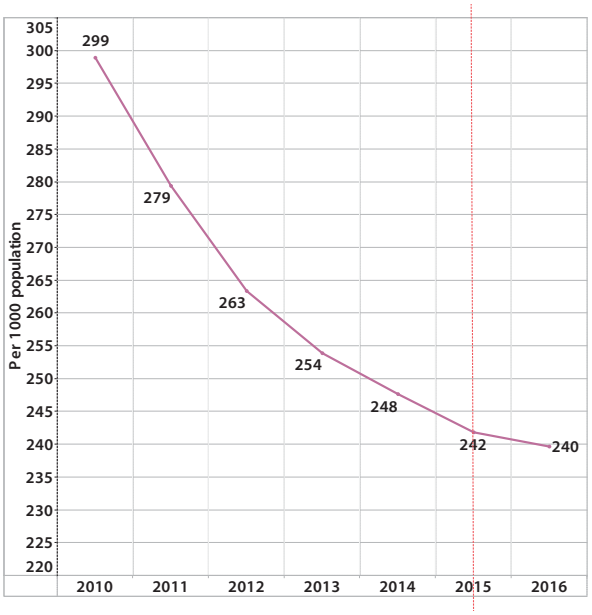
Malaria incidence rate

The burden of malaria in the African Region remains very high but the trend is towards a steady decline. In 2016, there were an estimated 240 cases of malaria per 1000 population, which is about 194 million new cases of malaria. This represents a 22% reduction from 299 per 1000 population in 2010 (3.7% average annual rate of decline).

The burden of malaria varies very widely between countries in the Region. In 2016, Mali had the highest estimated number of malaria cases per 1000 population (460), followed by Burkina Faso (423), and Guinea (396). Countries with the lowest rates per 1000 population were South Africa (1.0), Cabo Verde (1.4), Comoros (1.8) and Swaziland (2.1) – most of the malaria cases in these countries may have been imported from elsewhere. There were no cases of malaria in Algeria during the period 2013–2016

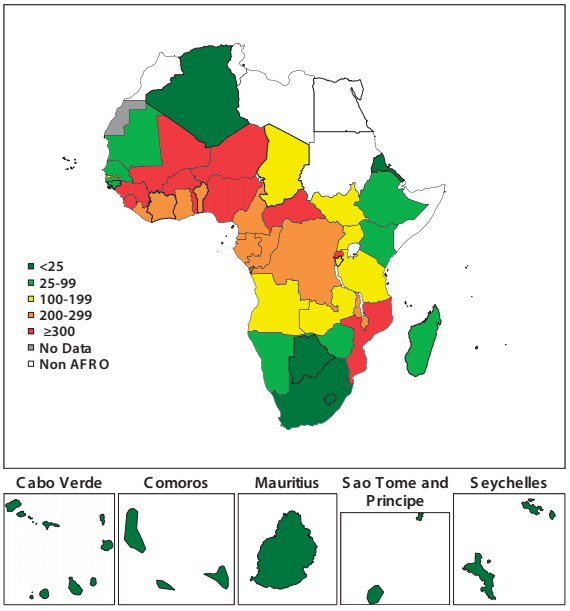
Using predefined criteria, malaria incidence in 2015 was classified as very high (300 or more new cases per 1 000 population) in up to 10 countries: Burkina Faso, Central African Republic, Guinea, Mali, Mozambique, Niger, Nigeria, Rwanda, Sierra Leone and Togo. The incidence rate was classified as high (200–299 per 1 000 population) in seven countries: Angola, DRC, Central African Republic, Togo, Cote d'Ivoire, Niger and Mali. Special focus of malaria control activities in these 19 countries would have the potential to substantially reduce the burden of malaria in the Region.

Figure 84 Trend in estimated number of malaria cases per 1000 population in the African Region



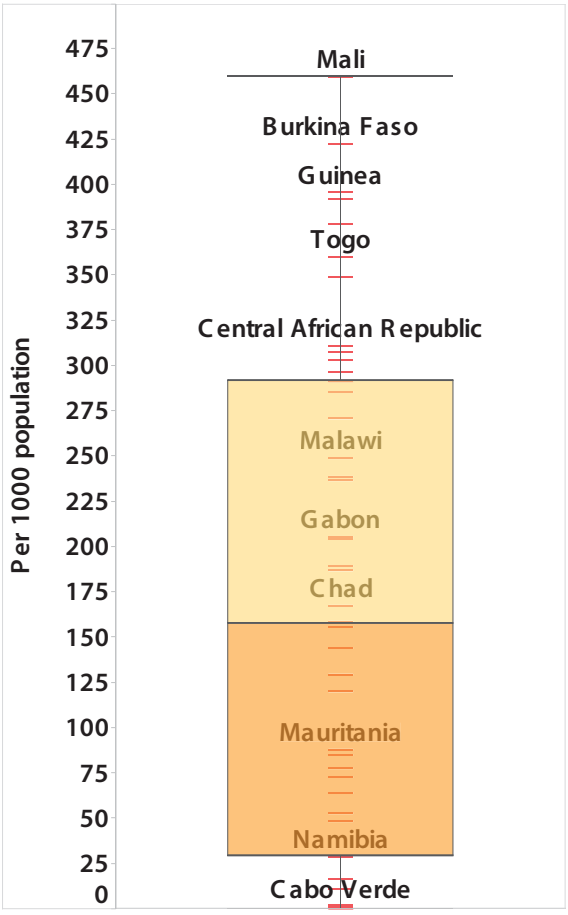
Data source: WHO, World Malaria Report 2017)

Figure 83 Estimated number of malaria cases per 1000 population in the African Region, 2016



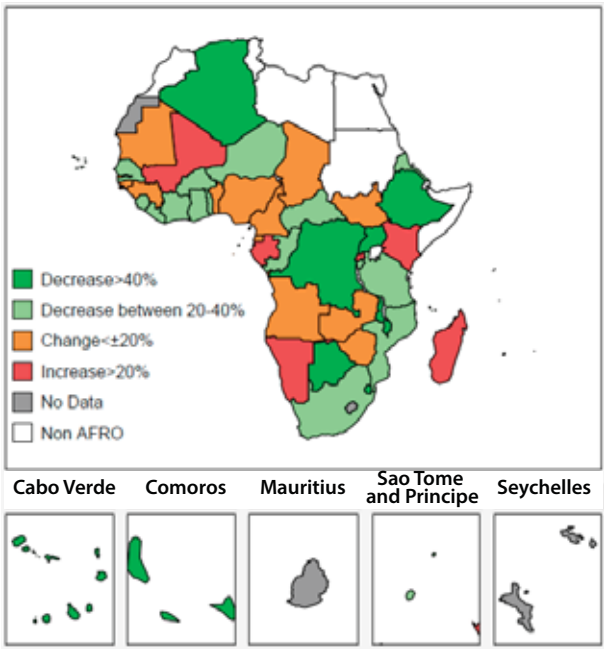
Data source: WHO, World malaria report 2017

Figure 85 Estimated number of malaria cases per 1000 population in the African Region, 2016



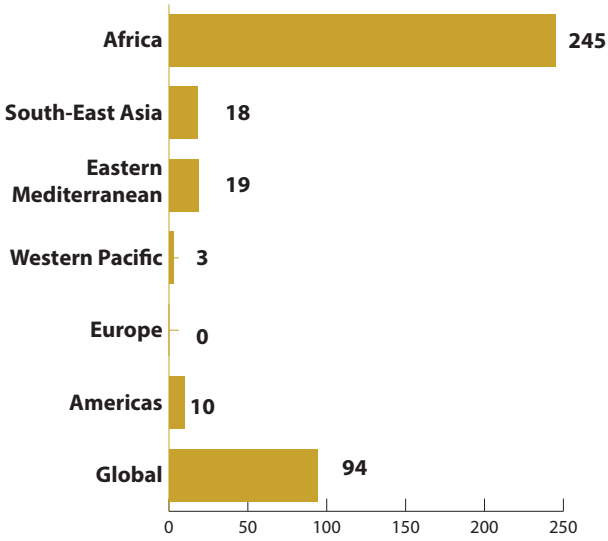
Data source: WHO, World malaria report 2017

Figure 86 Estimated change in malaria incidence rate per 1000 population in the African Region



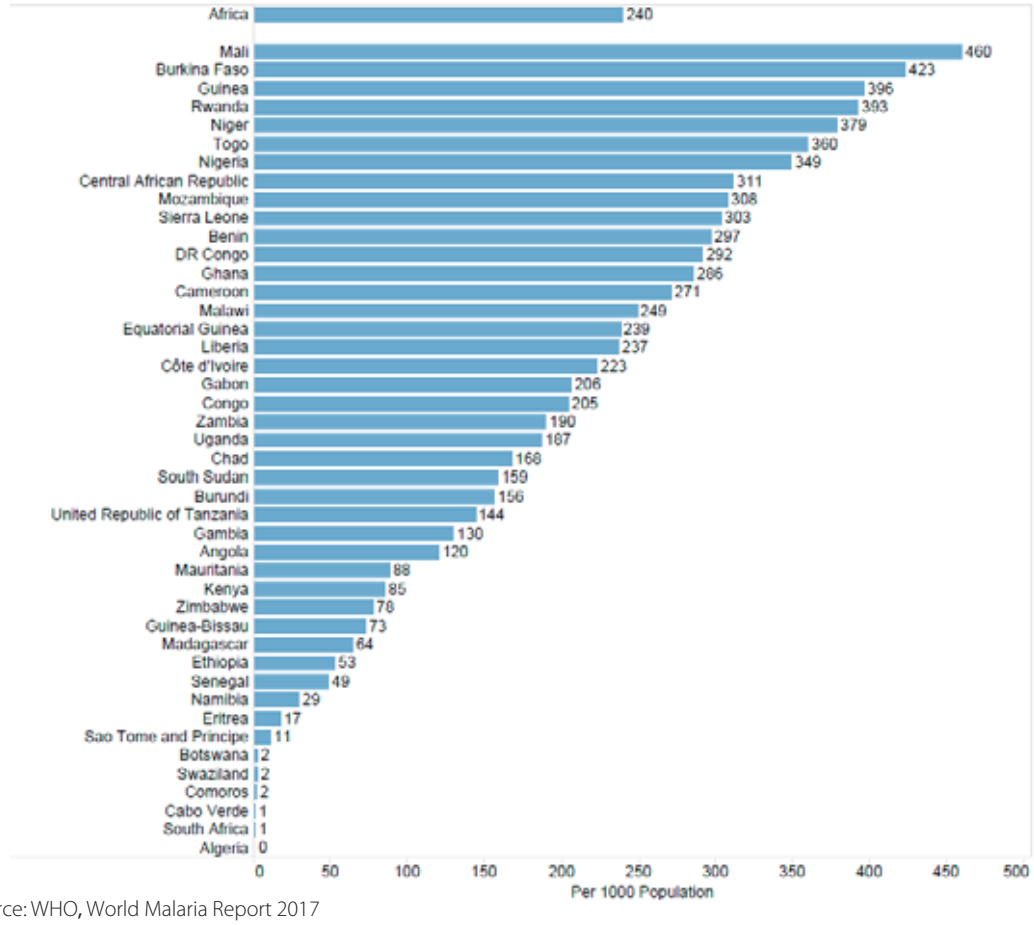
Data source: WHO, 2016

Figure 87 Estimated number of malaria cases per 1000 population by WHO region, 2016



Data source: WHO, World Malaria Report 2017

Figure 88 Malaria incidence rate per 1000 population by country in the African Region, 2016



Data source: WHO, World Malaria Report 2017

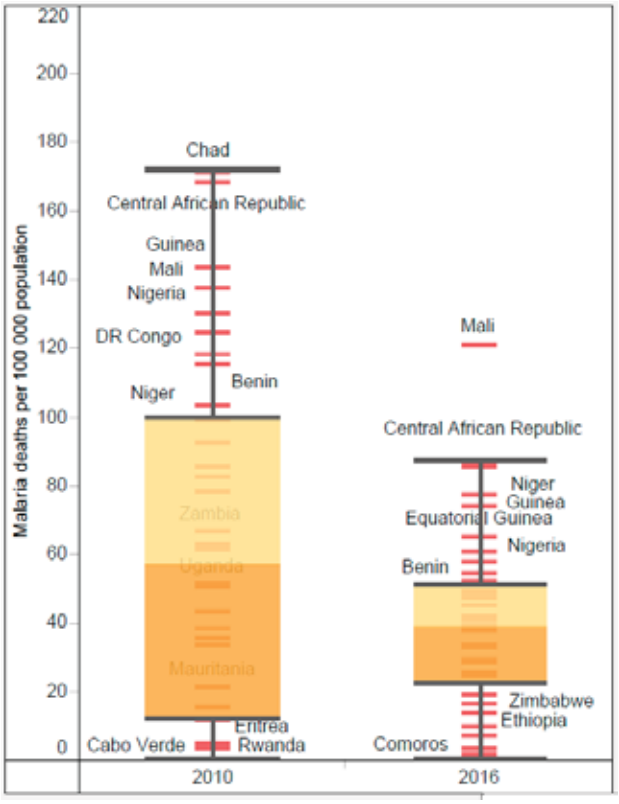
Malaria mortality

Malaria mortality rate in the Region remains high but is reducing. In 2016, there were 50 malaria deaths per 100 000 population. This represents an improvement from that in 2010 (72 per 100 000 population). However, the absolute number of malaria deaths is still high. In 2016 for instance, there were up to 405,880 malaria deaths in the African Region.

In 2016, Mali had the highest malaria mortality rate in the region (121) followed by Burkina Faso (114) and Sierra Leone (94). There were no malaria deaths in Swaziland, Sao Tome and Principe and Algeria and this is possibly because the incidence of malaria in these countries is low.

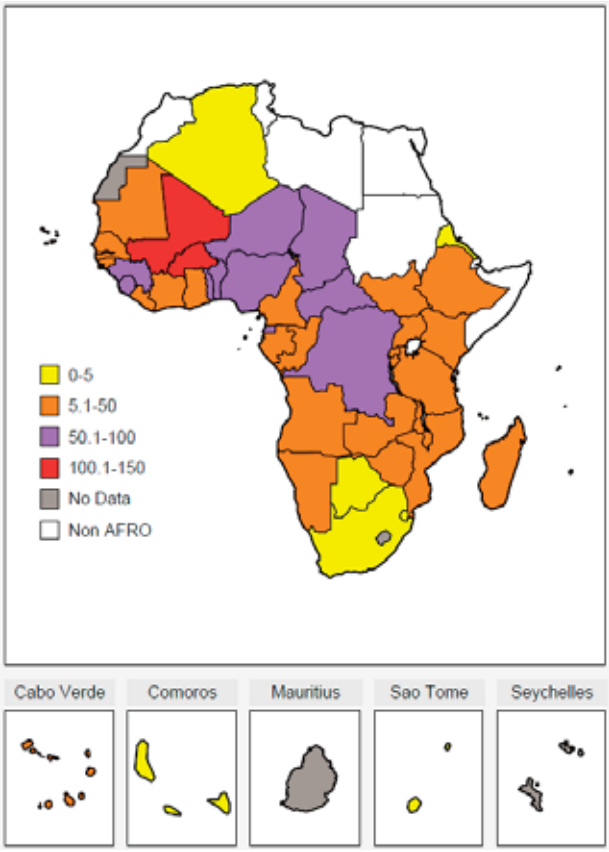
Generally, there is a linear relationship between the malaria incidence rate and the malaria mortality rate

Figure 90 Number of malaria-related deaths per 100 000 population in the African Region



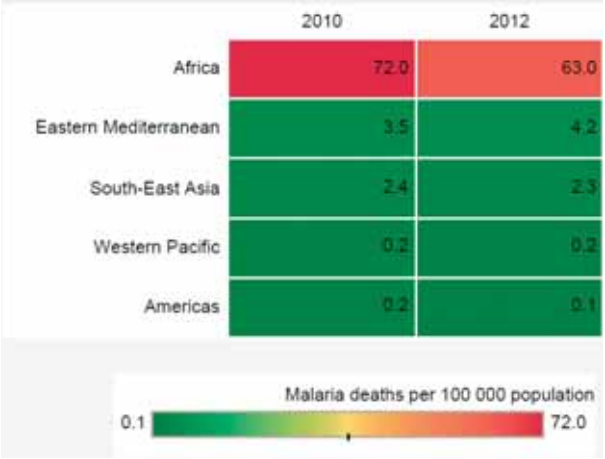
Data source: WHO 2010-2016)

Figure 89 Estimated number of malaria-related deaths per 100 000 population in the African Region



Data source: WHO, 2016

Figure 91 Number of malaria-related deaths per 100 000 population by WHO region



Data source: WHO

Table 24 Malaria mortality rate per 100 000 population by country in the African Region

	2010	2013	2016
Algeria	0	0	0
Angola	64	101	41.5
Benin	104	80	55.2
Botswana	0.9	0.1	1.3
Burkina Faso	191	103	114.2
Burundi	12	32	47.5
Cabo Verde	79	55	39.9
Cameroon	0.1	0	14.3
Central African Republic	169	115	87.1
Chad	172	137	58.3
Comoros	36	68	1.7
Congo	93	104	39.0
Côte d'Ivoire	116	71	29.5
Democratic Republic of the Congo	119	105	78.0
Equatorial Guinea	79	69	65.5
Eritrea	5.4	3.1	4.0
Ethiopia	4	16	10.3
Gabon	39	67	25.3
The Gambia	83	84	29.4
Ghana	52	67	45.7
Guinea	144	105	74.4
Guinea-Bissau	108	96	33.0
Kenya	5.1	28	26.1
Lesotho	–	–	–
Liberia	86	69	41.2
Madagascar	16	27	17.1
Malawi	51	63	38.7
Mali	138	88	121.1
Mauritania	22	50	33.9
Mauritius	–	–	–
Mozambique	125	71	49.8
Namibia	0.6	0.1	7.7
Niger	100	111	86.1
Nigeria	131	107	61.4
Rwanda	4.2	33	33.6
Sao Tome and Principe	29	43	0
Senegal	44	58	26.0
Seychelles	–	–	–
Sierra Leone	177	109	94.6
South Africa	0.2	0.2	2.6
South Sudan	–	55	49.1
Swaziland	0.1	0.2	0
Togo	63	83	52.6
Uganda	52	55	29.1
United Republic of Tanzania	34	44	39.7
Zambia	67	78	42.2
Zimbabwe	62	8.7	19.6

Data source: WHO

Use of insecticide treated nets

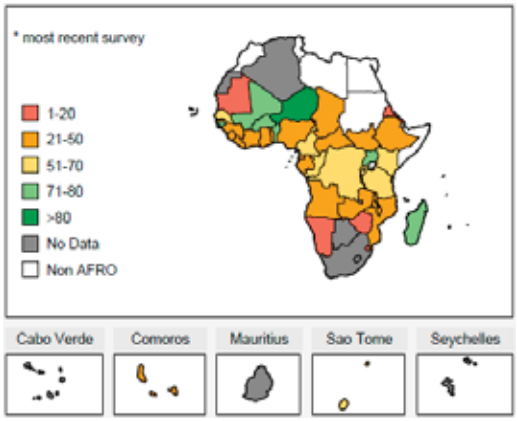
Insecticide treated nets (ITN) are the main malaria vector control strategy in the African Region. However, data on coverage of ITN are scarce. No usage data could be obtained in countries with very low malaria incidence rate, namely: Algeria, Botswana, Cabo Verde and South Africa. Data on ITN use as well as on malaria incidence and mortality rate could not be found either for Lesotho, Mauritius and Seychelles. For the other countries, data from the most recent national household surveys are used. These span the period 2007–2016; most data is old and may not represent the current situation of ITN use.

The data suggest that ITN use among children <5 years is low in most countries. Percentage of children <5 years that slept under an ITN was particularly low in Swaziland (2.0%), Mauritania (3.4%), Namibia (5.6%) and Zimbabwe (9%). The low coverage of ITN among children in these countries could be due to the low perception of risk of malaria resulting from the low incidence of malaria (0.2 – 88 per 1 000 population).

Surprisingly, ITN use among children <5 years is worryingly low in countries where the incidence of malaria is high (≥200 cases per 1 000 population). Only Niger, with an incidence rate of 226 per 1000 population, had a near universal ITN coverage among children <5 years (95.5% in 2015). Burundi, with the highest malaria incidence rate in the Region (753 cases per 1000 population), had only 54% of its children sleeping under an ITN, while Mozambique, with a malaria incidence rate of 509 per 1000 population, had only 36% of its children sleeping under an ITN and Zambia, with a rate of 501 per 1000 population, only 40.6%.

It is important to note that calculation of ITN use assumes that malaria is endemic throughout a country, which is not the case. Geographic patterns of malaria occurrence implies that interventions vary by levels of malaria transmission in many countries. In Kenya for instance, ITN distribution and use of intermittent presumptive treatment by pregnant women is not a major priority in low malaria endemic areas.

Figure 92 Percent of children <5 years who slept under an insecticide treated net in the African Region, 2007–2016

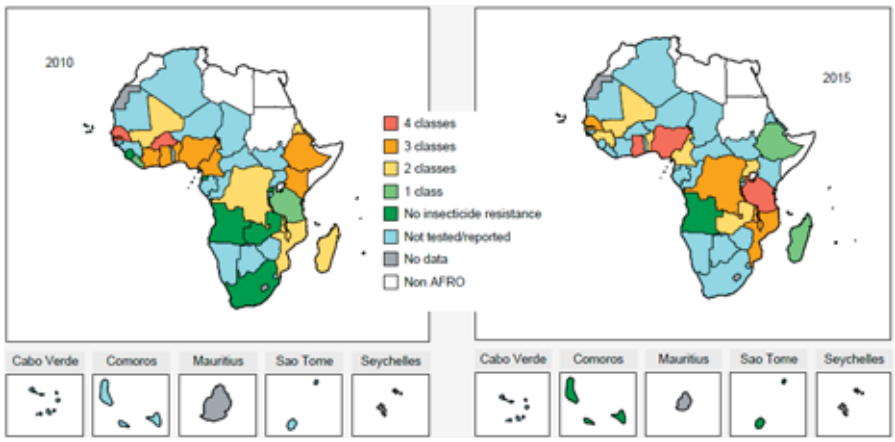


Data source: WHO, most recent surveys

Malaria resistance

There is resistance to at least one of the four WHO-recommended insecticides[1] and the resistance in the Region is increasing. For instance, Nigeria and Ghana that reported resistance to three of the four WHO-recommended insecticides in 2010 reported resistance to all the insecticides in 2015. Similarly, United Republic of Tanzania in 2010 reported resistance to only one insecticide but in 2015, it reported resistance to all the insecticides. Democratic Republic of Congo and Mozambique reported resistance to 2 insecticides in 2010 but in 2015, they reported resistance to three insecticides. Resistance disappeared only in Ethiopia and reduced from two to one in Madagascar.

Figure 93 Number of insecticide classes to which resistance reported by year in the African Region



Data source: WHO

1 WHO currently recommends four classes of insecticide for indoor residual spraying (pyrethroids, organochlorines, carbamates and organophosphates) and one for insecticide-treated nets (pyrethroids). The increasing trend in resistance to one or more insecticides classes constitutes a major threat to the effectiveness of current malaria control efforts.

Table 25 Malaria incidence rate and ITN use among children <5 year

	Malaria incidence rate (%) (2016)	ITN use among children <5 years (%) (2007 – 2016)
Algeria	–	–
Angola	12	26
Benin	29.7	72.7
Botswana	0.2	–
Burkina Faso	42.3	75.3
Burundi	15.6	54
Cabo Verde	0.1	–
Cameroon	27.1	54.8
Central African Republic	31.1	36
Chad	16.7	36.4
Comoros	0.1	41
Congo	20.4	60.5
Côte d'Ivoire	22.3	37
Democratic Republic of the Congo	29.1	55.8
Equatorial Guinea	23.8	23
Eritrea	1.7	20
Ethiopia	5.3	30
Gabon	20.6	39
The Gambia	12.9	46.9
Ghana	28.5	46.6
Guinea	39.6	26
Guinea-Bissau	7.3	80.6
Kenya	8.5	56.1
Lesotho	–	–
Liberia	23.7	38.1
Madagascar	6.4	73.4
Malawi	24.9	42.7
Mali	45.9	71.2
Mauritania	8.8	3.4
Mauritius	–	–
Mozambique	30.7	36
Namibia	2.9	5.6
Niger	37.8	95.5
Nigeria	34.9	43.6
Rwanda	39.6	67.7
Sao Tome and Principe	1.1	61.1
Senegal	4.9	55.4
Seychelles	–	–
Sierra Leone	30.3	49
South Africa	0.1	–
South Sudan	15.9	25
Swaziland	0.2	2
Togo	14.4	54.4
Uganda	36	42.8
United Republic of Tanzania	18.7	74.3
Zambia	18.9	40.6
Zimbabwe	7.7	9

Data source: WHO

Table 26 Percentage of children <5 years who slept under an ITN during the period 2007 - 2016

	Year	Children aged <5 years (%)
Algeria		
Angola	2007-2013	26
Benin	2014	72.7
Botswana		
Burkina Faso	2014	75.3
Burundi	2007-2013	54
Cabo Verde		
Cameroon	2014	54.8
Central African Republic	2007-2013	36
Chad	2014-2015	36.4
Comoros	2007-2013	41
Congo	2014-2015	60.5
Côte d'Ivoire	2007-2013	37
Democratic Republic of the Congo	2013-2014	55.8
Equatorial Guinea	2007-2013	23
Eritrea	2007-2013	20
Ethiopia	2007-2013	30
Gabon	2007-2013	39
The Gambia	2013	46.9
Ghana	2014	46.6
Guinea	2007-2013	26
Guinea-Bissau	2014	80.6
Kenya	2015	56.1
Lesotho		
Liberia	2013	38.1
Madagascar	2016	73.4
Malawi	2015-2016	42.7
Mali	2015	71.2
Mauritania	2015	3.4
Mauritius		
Mozambique	2007-2013	36
Namibia	2013	5.6
Niger	2015	95.5
Nigeria	2015	43.6
Rwanda	2014-2015	67.7
Sao Tome and Principe	2014	61.1
Senegal	2015	55.4
Seychelles		
Sierra Leone	2013	49
South Africa		
South Sudan	2007-2013	25
Swaziland	2007-2013	2
Togo	2013-2014	42.8
Uganda	2014-2015	74.3
United Republic of Tanzania	2015-2016	54.4
Zambia	2013-2014	40.6
Zimbabwe	2015	9

Data source: WHO, most recent survey in each country

6.3 Tuberculosis

Tuberculosis incidence rate

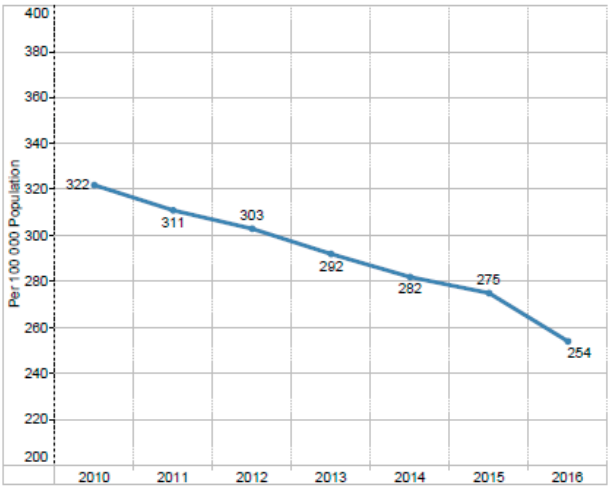
Tuberculosis (TB) incidence rate refers to the estimated number of new and relapse cases of all forms of TB arising in a given year, expressed as the rate per 100 000 or 1000 population. Direct measurement of TB incidence at the national level is generally difficult and costly, as it would require long-term studies among large cohorts of people.

In countries where the TB surveillance system is very good, TB notification, defined as the number of new and relapse cases of TB that are reported to the national TB control programme, gives a very good proxy indication of TB incidence. But the TB surveillance system in most developing countries has significant gaps and weaknesses, with a low ability to detect TB. In 2014 for instance, TB case detection rate (CDR) – defined as the ratio of the number of notified TB cases to the estimated number of incident TB cases in a given year – in the African Region ranged from as low as 15% in Nigeria to 88% in Equatorial Guinea. Only 8 countries in the Region have achieved a TB case detection rate greater than 70%, the target set by the global TB control programme: Equatorial Guinea (88% CDR), Sao Tome and Principe (87% CDR), Rwanda (81% CDR), Kenya (80% CDR), The Gambia (76% CDR), Gabon (75% CDR), Algeria (74% CDR) and Uganda (72% CDR). Two countries, Botswana and South Africa, came close to achieving the target, with a CDR of 70%. Given these important limitations, statistical methods are used to provide the best estimate of TB incidence.

WHO estimates show that TB incidence rate in the Region is still high, but the trend during the period 2010–2016 is towards a steady decline in the incidence rate, with a rate per 100 000 population dropping by 24% from 322 in 2010 to 254 in 2016 (average annual rate of decline 4%). However, the number of incident TB cases remained largely the same during the same period, with 2.67 million in 2010 and 2.59 million in 2016.

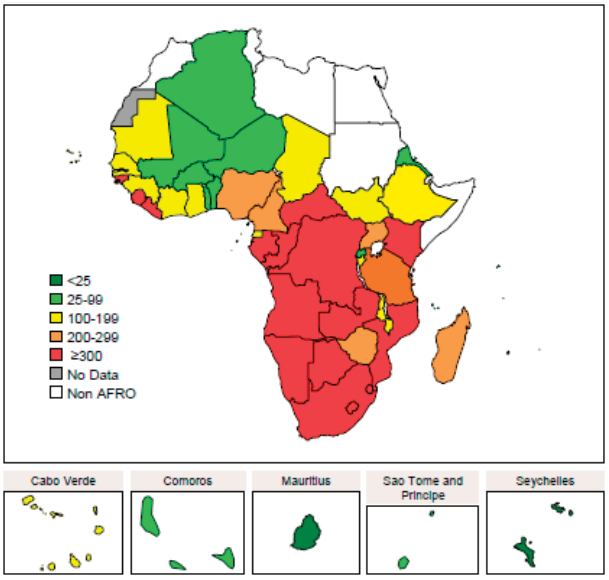
Intercountry differences are quite large, with up to 766 points difference between the top and bottom countries. In 2016, the incidence rate per 100 000 population was estimated to be 300 or more in 16 countries, including all the countries in the Southern part of Africa except Malawi and Zimbabwe. The estimates show that in 2016, South Africa had the highest TB incidence rate per 100 000 population in the Region (781) followed by Lesotho (724), Swaziland (551) and Gabon (485). The rate was lowest in the small island nations of Seychelles (15), Mauritius (22), and Comoros (35). When the absolute number is considered, South Africa had the biggest estimated number of incident cases of TB in 2016 (438,000), followed by Nigeria (407,000), Democratic Republic of Congo (254,000) and Ethiopia (182,000). The smallest numbers were in the small island nations of Seychelles (14), Sao Tome and Principe (200), Comoros (280) and Mauritius (280).

Figure 94 Trend in the number of new TB infections per 1000 population in the African Region



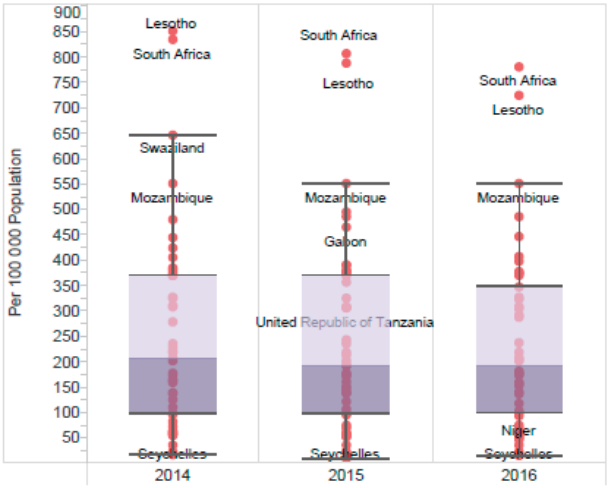
Data source: WHO

Figure 95 Number of new TB cases per 1000 population in the African Region, 2015



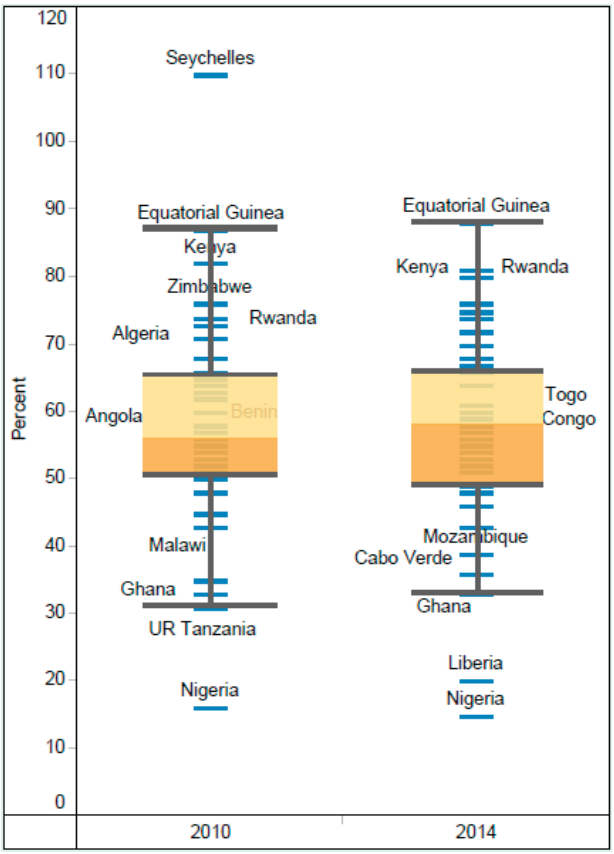
Data source: WHO, 2016

Figure 96 Number of new TB infections per 100 000 population in the African Region, 2016



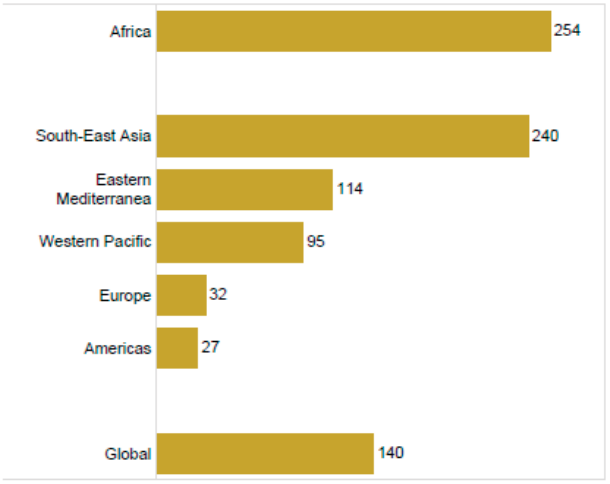
Data source: WHO, 2016

Figure 97 TB case detection rate (%) for all forms of TB in the African Region, 2010 and 2014



Data source: WHO, 2014

Figure 98 Number of new TB infections per 1000 population by WHO region, 2016



Data source: WHO, 2016

Table 27 Tuberculosis case detection rate (%) by country in the African Region

	2010	2014
Algeria	71	74
Angola	55	60
Benin	58	60
Botswana	66	70
Burkina Faso	53	59
Burundi	56	53
Cabo Verde	50	39
Cameroon	45	52
Central African Republic	35	57
Chad	53	55
Comoros	–	56
Congo	65	58
Côte d'Ivoire	58	64
Democratic Republic of the Congo	53	48
Equatorial Guinea	87	88
Eritrea	60	60
Ethiopia	66	60
Gabon	52	75
The Gambia	66	76
Ghana	33	33
Guinea	54	54
Guinea-Bissau	36	34
Kenya	82	80
Lesotho	52	49
Liberia	57	20
Madagascar	48	51
Malawi	43	43
Mali	56	59
Mauritania	51	55
Mauritius	45	46
Mozambique	33	39
Namibia	55	67
Niger	55	58
Nigeria	16	15
Rwanda	74	81
Sao Tome and Principe	74	87
Senegal	63	66
Seychelles	110	52
Sierra Leone	70	64
South Africa	73	68
South Sudan		
Swaziland	68	60
Togo	58	61
Uganda	62	72
United Republic of Tanzania	31	36
Zambia	64	59
Zimbabwe	76	70

Data source: WHO, 2014

Table 28 Number of incident TB cases by country

	TB Incidence rate per 100 000 population		Number of incident TB cases
	2015	2016	2016
Algeria	74	70	29 000
Angola	370	370	107 000
Benin	60	59	6 400
Botswana	356	326	7 300
Burkina Faso	52	51	9 400
Burundi	122	118	12 000
Cabo Verde	212	203	48 000
Cameroon	139	137	740
Central African Republic	391	407	19 000
Chad	152	153	22 000
Comoros	35	35	280
Congo	379	378	19 000
Côte d'Ivoire	159	153	36 000
Democratic Republic of the Congo	324	323	254 000
Equatorial Guinea	172	181	2 200
Eritrea	70	74	3 700
Ethiopia	192	177	182 000
Gabon	465	485	9 600
The Gambia	174	174	3 500
Ghana	160	156	44 000
Guinea	177	176	22 000
Guinea-Bissau	373	374	6 800
Kenya	380	348	169 000
Lesotho	788	724	16 000
Liberia	308	308	14 000
Madagascar	236	237	59 000
Malawi	193	159	29 000
Mali	57	56	10 000
Mauritania	107	102	4 400
Mauritius	22	22	280
Mozambique	551	551	159 000
Namibia	495	446	11 000
Niger	95	93	19 000
Nigeria	219	219	407 000
Rwanda	56	50	6 000
Sao Tome and Principe	97	99	200
Senegal	139	140	22 000
Seychelles	9.8	15	14
Sierra Leone	307	304	22 000
South Africa	807	781	438 000
South Sudan	146	146	18 000
Swaziland	485	398	5 400
Togo	52	46	3 500
Uganda	202	201	83 000
United Republic of Tanzania	306	287	160 000
Zambia	391	376	62 000
Zimbabwe	242	208	34 000
Africa	263	254	2 590 000

Data source: WHO

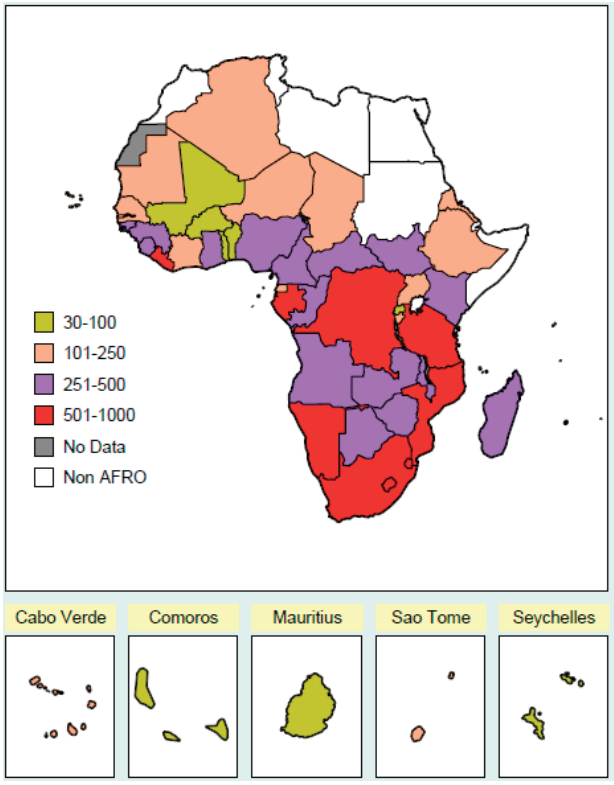
TB prevalence rate

TB prevalence refers to the number of cases of TB (all forms) in a population at a given point in time (sometimes referred to as "point prevalence"). It is expressed as the number of cases per 100 000 population. Estimates of TB prevalence are based on a consultative and analytical process led by WHO and are published annually.

WHO estimates of TB prevalence in the African Region are available up to the year 2014. Estimates for the period 2011 – 2014 show that TB prevalence rate in the African Region continued its steady decline: the prevalence rate per 100 000 population was 345 in 2011, 340 in 2012, 333 in 2013 and 330 in 2014. If the pace of decline during the period 2011 – 2014 remains constant, TB prevalence rate in the Region in 2017 is around 315 per 100 000 population.

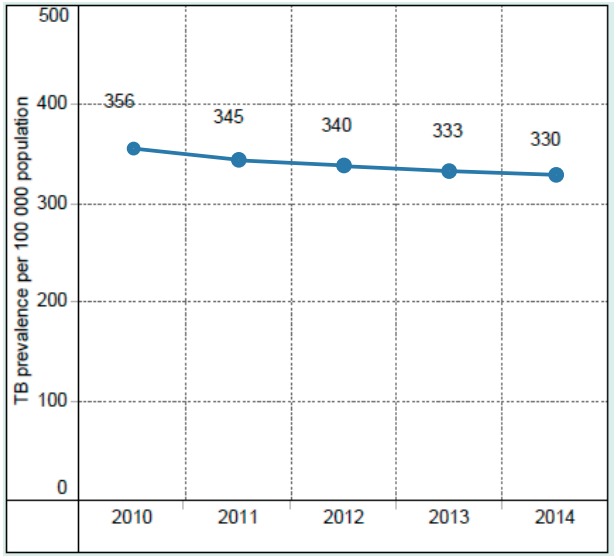
Intercountry differences in TB prevalence are very large. In 2014 for instance, there was more than 20-fold difference between the country with the highest and that with the lowest TB prevalence. South Africa had the highest prevalence of TB per 100 000 population (696), followed by Lesotho (671), Namibia (627), Gabon (615) and Swaziland (605). The prevalence was lowest in Seychelles (33), followed by Mauritius (35), Comoros (60), Togo (81), Burkina Faso (81) and Rwanda (85). During the period 2011 – 2014, TB prevalence decreased in 36 countries, with the biggest decrease in Namibia (by 28.9%), followed by United Republic of Tanzania (21.7%), Eritrea (20.5%), Swaziland (20.3%) and Rwanda (18.2%). Guinea and Cabo Verde had the smallest declines (0.8%), followed by The Gambia and Gabon (1.6%), Comoros (1.7%), Mali (2.2%) and South Africa and Madagascar (2.4%). TB prevalence remained the same in Malawi and increased in 10 countries: Seychelles (by 40.5%), South Sudan (17.4%), Equatorial Guinea (16.3%), Liberia (12.1%), Mozambique (6.7%), Democratic Republic of Congo (3.8%), Chad (2.9%), Nigeria (2.8%), Senegal (2.5%), and Republic of Congo (2%). The big increase in Seychelles is due to small numbers.

Figure 99 Number of TB cases per 100 000 population per year in the African Region



Data source: WHO, 2014

Figure 100 Trend in the number of TB cases per 100 000 population in the African Region



Data source: WHO

Table 29 TB prevalence rate per 100 000 population per year and by country in the African Region, 2010–2014

	2010	2011	2012	2013	2014	% change from 2010 value	% change from 2011 value
Algeria	133	129	125	121	118	-12.0	-8.9
Angola	513	510	504	498	490	-4.6	-4.0
Benin	99	97	95	93	89	-10.6	-8.6
Botswana	402	383	364	356	354	-12.7	-7.9
Burkina Faso	87	85	83	81	81	-7.1	-4.8
Burundi	209	201	197	196	195	-6.9	-3.0
Cabo Verde	242	238	239	247	236	-2.5	-0.8
Cameroon	332	310	302	291	266	-22.2	-15.3
Central African Republic	508	470	437	412	435	-15.5	-7.7
Chad	205	203	200	197	209	1.9	2.9
Comoros	59	61	60	60	60	1.7	-1.7
Congo	453	452	454	460	461	1.8	2.0
Côte d'Ivoire	264	242	227	219	215	-20.5	-11.8
Democratic Republic of the Congo	507	512	518	524	532	4.8	3.8
Equatorial Guinea	114	119	125	132	140	20.5	16.3
Eritrea	144	151	165	150	123	-15.8	-20.5
Ethiopia	250	237	224	211	200	-22.3	-17.0
Gabon	654	625	595	570	615	-6.1	-1.6
The Gambia	128	128	128	127	126	-1.6	-1.6
Ghana	312	310	302	290	282	-10.1	-9.5
Guinea	262	255	251	249	253	-3.5	-0.8
Guinea-Bissau	475	482	509	508	463	-2.6	-4.0
Kenya	284	277	271	266	266	-6.5	-4.1
Lesotho	726	718	674	648	671	-7.9	-6.8
Liberia	433	452	471	494	510	16.4	12.1
Madagascar	423	416	410	403	406	-4.1	-2.4
Malawi	314	334	370	363	334	6.2	0.0
Mali	91	93	96	96	91	0.0	-2.2
Mauritania	221	210	198	187	182	-19.4	-14.3
Mauritius	39	37	36	34	35	-10.8	-5.6
Mozambique	494	518	546	561	554	11.5	6.7
Namibia	868	837	793	718	627	-32.5	-28.9
Niger	177	170	165	161	155	-13.3	-9.2
Nigeria	321	321	323	326	330	2.8	2.8
Rwanda	107	102	95	90	85	-23.0	-18.2
Sao Tome and Principe	132	126	117	107	111	-17.3	-12.7
Senegal	201	200	202	202	205	2.0	2.5
Seychelles	20	22	24	28	33	50.1	40.5
Sierra Leone	472	465	452	445	441	-6.8	-5.3
South Africa	789	713	705	706	696	-12.5	-2.4
South Sudan		268	257	286	319	17.4	17.4
Swaziland	741	741	698	651	605	-20.3	-20.3
Togo	101	96	93	89	81	-22.1	-17.0
Uganda	196	181	170	159	159	-20.9	-13.0
United Republic of Tanzania	695	656	609	537	528	-27.5	-21.7
Zambia	424	465	468	455	436	2.8	-6.4
Zimbabwe	335	327	313	276	292	-13.7	-11.3
Africa	356	345	340	333	330	-7.5	-4.4

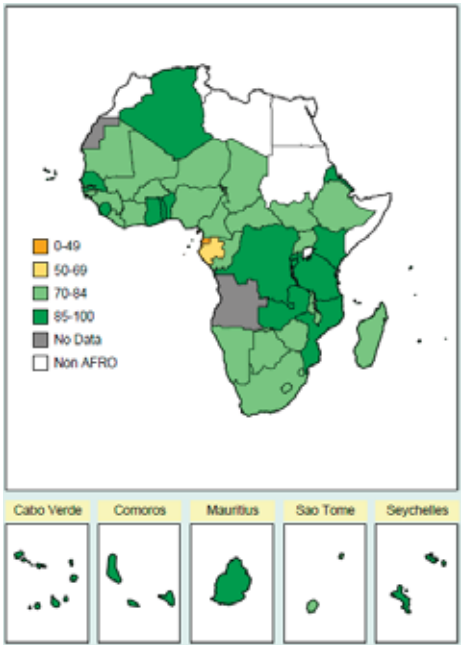
Data source: WHO

TB treatment success rate

Successful treatment of infectious cases of TB is essential to prevent the spread of the infection. TB treatment success rate refers to the percentage of new smear-positive TB cases registered under directly observed TB treatment strategy (DOTS) in a given year that successfully completed treatment, whether with bacteriologic evidence of success ("cured") or without ("treatment completed").

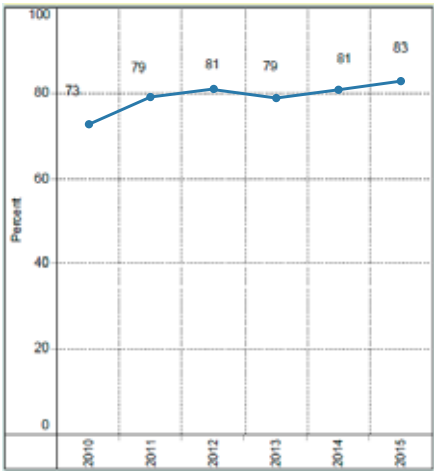
The data suggest that the TB treatment success rate in the Region is high and increasing but there are substantial inter-country differences. In 2015 for instance, the treatment success rate in the Region was 83% (range: 43 – 92%), with the rate at least 70% in all countries except Gabon (50%) and Equatorial Guinea (43%). During the period 2010 – 2015 TB treatment success rate increased by about 13% from 73% in 2010 to 83% in 2015. If the average annual rate of increase during the period 2010 – 2015 is sustained, the treatment success rate in the Region will be close to 100% by 2020.

Figure 101 Percent of new TB cases successfully treated in the African Region



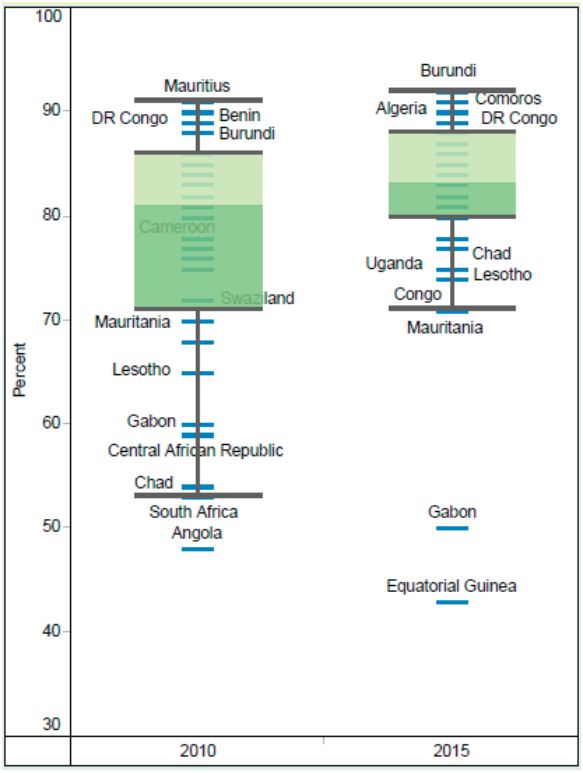
Data source: WHO, 2015

Figure 102 Trend in the percent of new TB cases successfully treated in the African Region (Data source: WHO)



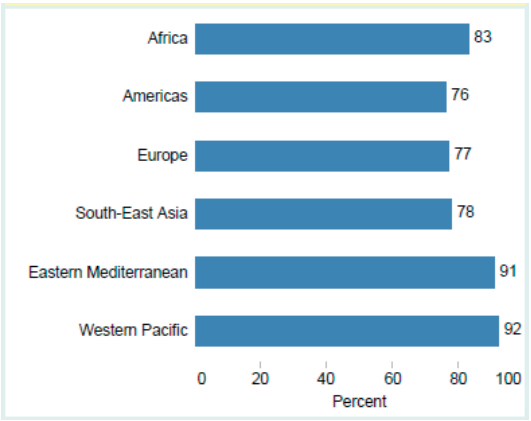
Data source: WHO

Figure 103 Percent of TB cases successfully treated in the African Region, 2010 and 2015



Data source: WHO

Figure 104 Percent of TB cases successfully treated by WHO region, 2015



Data source: WHO, 2015

Table 30 Percentage of TB cases successfully treated in the African Region

	2010	2014	2015	Rate of change 2010 - 2015 (%)
Algeria	89	88	90	1.1
Angola	48	34	-	-
Benin	90	89	88	-2.2
Botswana	78	77	79	1.3
Burkina Faso	78	81	78	0.0
Burundi	88	91	92	4.4
Cabo Verde	–	92	89	-
Cameroon	78	84	84	7.4
Central African Republic	59	70	78	27.9
Chad	54	68	77	35.5
Comoros	90	–	91	1.1
Congo	77	69	71	-8.1
Côte d'Ivoire	75	79	80	6.5
Democratic Republic of the Congo	89	89	89	0.0
Equatorial Guinea	68	58	43	-45.8
Eritrea	86	91	90	4.5
Ethiopia	77	89	84	8.7
Gabon	60	58	50	-18.2
The Gambia	88	88	82	-7.1
Ghana	84	85	85	1.2
Guinea	80	83	80	0.0
Guinea-Bissau	67	81	79	16.5
Kenya	86	87	87	1.2
Lesotho	65	70	74	13.0
Liberia	81	74	77	-5.1
Madagascar	83	83	82	-1.2
Malawi	77	85	81	5.1
Mali	70	73	77	9.5
Mauritania	91	70	71	-24.8
Mauritius	85	90	91	6.8
Mozambique	85	89	88	3.5
Namibia	81	87	83	3.4
Niger	81	79	80	-1.2
Nigeria	82	87	84	2.4
Rwanda	76	86	87	13.5
Sao Tome and Principe	82	74	78	-5.0
Senegal	76	87	86	12.4
Seychelles	86	69	88	2.3
Sierra Leone	53	85	88	50.7
South Africa	70	78	81	14.6
South Sudan	72	71	80	10.5
Swaziland	85	78	80	-6.1
Togo	68	88	86	23.5
Uganda	89	75	75	-17.1
United Republic of Tanzania	89	90	90	1.1
Zambia	76	85	85	11.2
Zimbabwe	–	81	81	–

Data source: WHO

TB mortality rate

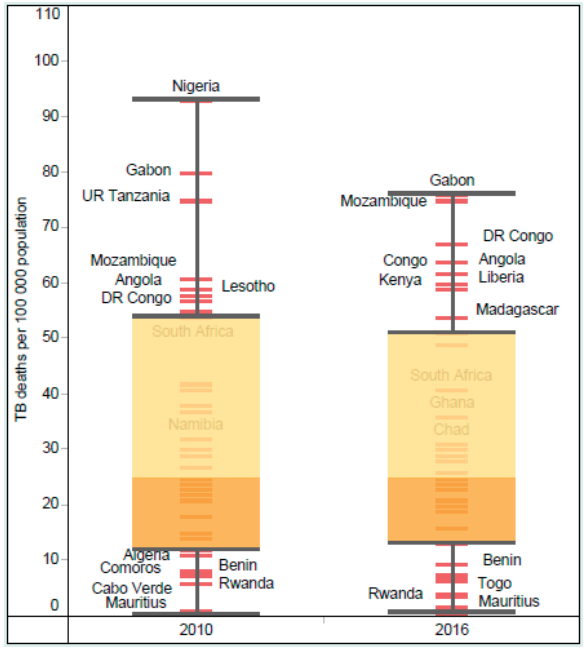
TB mortality rate in the WHO African Region is low and continues to decline, albeit slowly. During the period 2000 – 2010, TB mortality rate in the Region declined fairly steadily by about 2.8% annually from 62 per 100 000 population in 2000 to 47 per 100 000 population in 2010. The mortality rate continued to decline by an annual rate of 2.3% during the period 2010 – 2016, with the rate declining to 41 per 100 000 population in 2016.

TB mortality rate differed quite substantially by country. In 2016 for instance, there was up to 76-point difference between the countries with the highest and the lowest TB mortality rates. Gabon and Guinea Bissau had the highest mortality rate per 100 000 population (76) followed by Mozambique (75) and Democratic Republic of the Congo (67). The lowest TB mortality rate was the Seychelles (0.4) followed by Mauritius (1.6) and Rwanda (1.7).

During the period 2010 – 2016, the TB mortality rate increased in 15 countries including Kenya (by 120%), Equatorial Guinea (by 75%), Mauritius (by 48%) and Congo (by 38%). The rate declined in 27 countries, with the biggest declines in Rwanda (by 156%), Sao Tome and Principe (by 103%) and Togo (by 98%).

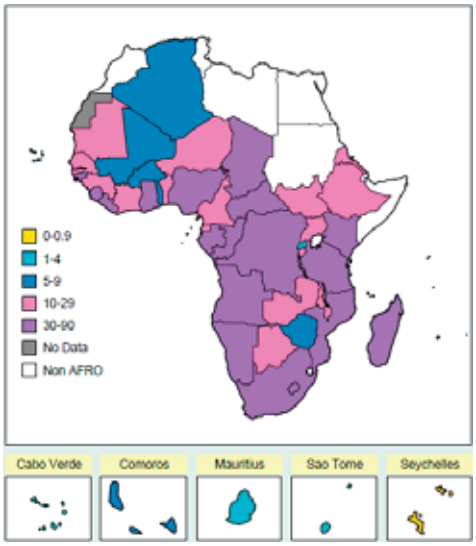
Compared to the other WHO Regions, The WHO African Region has the highest TB mortality rate. In 2016 for instance, the TB mortality rate in the WHO African Region was 24 times higher than the rate in the Americas and 15 times higher than the rate in Europe.

Figure 107 Number of TB deaths among HIV negative people per 100 000 population in the African Region



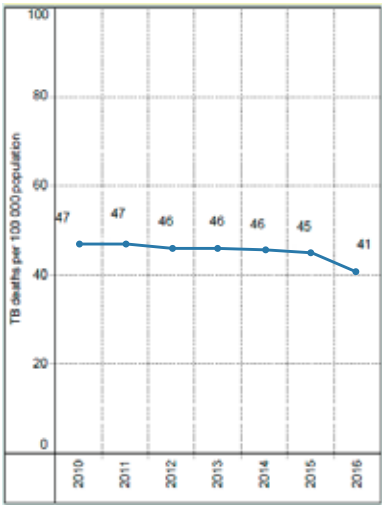
Data source: WHO, 2010 and 2016

Figure 105 TB deaths among HIV negative people per 100 000 population in the African Region, 2016



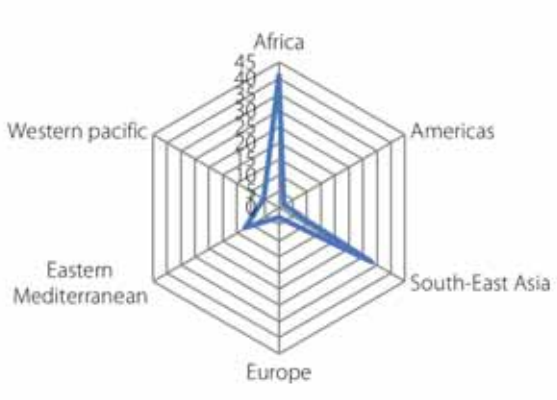
Data source: WHO, 2016

Figure 106 Trend in number of TB deaths among HIV negative people per 100 000 population in the African Region



Data source: WHO

Figure 108 Number of TB deaths among HIV negative people per 100 000 population by WHO region, 2016



Data source: WHO, 2016

Table 31 Number of TB deaths among HIV negative people per 100 000 population per year in the African Region

	2010	2015	2016	Rate of change (%)
Algeria	8.5	8.2	7.7	-9.9
Angola	58	45	64	9.8
Benin	11	9.5	9.4	-15.7
Botswana	30	26	22	-31
Burkina Faso	10	9	8.7	-13.9
Burundi	23	24	19	-19.1
Cabo Verde	5.8	5.3	3.7	-45
Cameroon	42	30	28	-40.5
Central African Republic	61	45	59	-3.3
Chad	22	23	31	34.3
Comoros	7.3	7.8	6.5	-11.6
Congo	41	49	60	38
Côte d'Ivoire	29	22	23	-23.2
Democratic Republic of the Congo	57	66	67	16.2
Equatorial Guinea	7.5	7.5	16	75.8
Eritrea	15	12	13	-14.3
Ethiopia	38	26	25	-41.9
Gabon	80	65	76	-5.1
The Gambia	25	20	21	-17.4
Ghana	41	37	36	-13
Guinea	30	28	26	-14.3
Guinea-Bissau	62	85	76	20.4
Kenya	18	20	60	120.4
Lesotho	59	55	49	-18.6
Liberia	55	70	60	8.3
Madagascar	54	49	54	0
Malawi	14	13	16	13.4
Mali	11	9.4	7.7	-35.7
Mauritania	27	21	21	-25.1
Mauritius	0.98	1.5	1.6	49
Mozambique	61	74	75	20.7
Namibia	32	32	30	-6.5
Niger	21	19	20	-4.9
Nigeria	93	99	62	-40.5
Rwanda	8.1	3.8	1.7	-156.1
Sao Tome and Principe	11	3.6	3.9	-103.7
Senegal	22	23	25	12.8
Seychelles	0	0	0.4	0
Sierra Leone	43	51	47	8.9
South Africa	54	46	41	-27.5
South Sudan		28	24	-
Swaziland	37	31	-	-
Togo	11	6.4	4.1	-98.7
Uganda	18	14	26	36.8
United Republic of Tanzania	75	56	51	-38.6
Zambia	24	31	29	18.9
Zimbabwe	12	11	7.2	-51.1

Data source: WHO

Table 32 Number of TB deaths among HIV-negative people per 100 000 population by WHO region

	African Region	Region of the Americas	Eastern Mediterranean Region	European Region	South-East Asian Region	Western Pacific Region	Global
2000	62	3.5	29	8.4	56	13	29
2001	61	3.4	29	8.2	56	12	28
2002	59	3.2	28	8.2	55	11	28
2003	57	3.1	28	8.2	54	11	27
2004	55	2.9	27	7.9	52	9.9	26
2005	55	2.7	25	8	49	9.3	25
2006	53	2.5	23	7	47	8.7	24
2007	52	2.4	21	6.6	45	8.1	23
2008	50	2.3	19	6.4	44	7.9	22
2009	48	2.2	18	5.7	42	7.4	21
2010	47	2.3	16	5.3	41	7	21
2011	47	2.1	15	5	40	6.7	20
2012	46	2	14	4.6	39	6.1	20
2013	46	1.9	14	4	39	5.7	20
2014	46	1.9	13	3.8	38	5.3	19
2015	45	1.9	12	3.5	37	4.8	19

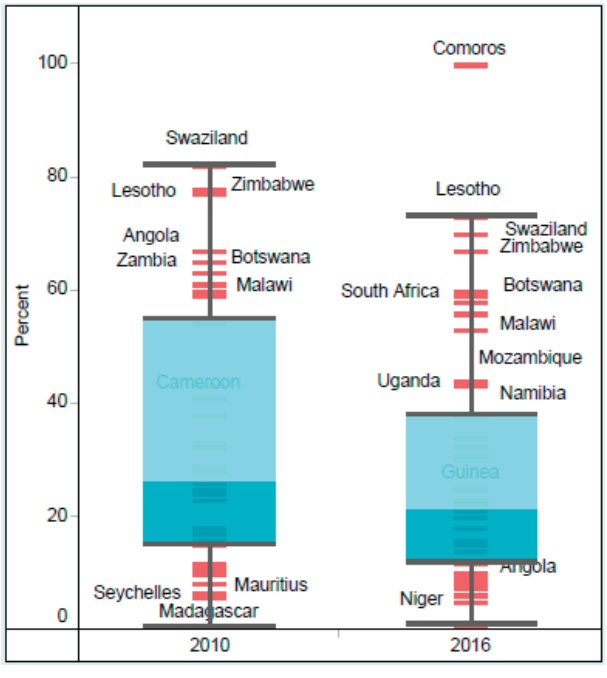
Data source: WHO

6.4 TB/HIV

HIV remains a key driver of TB in the Region, with 34% of TB patients testing positive for HIV in 2016 (range: 0.7 – 100). However, HIV testing among TB patients is not as universal as would be expected, but the rate has increased quite steadily over the years. For instance, the proportion of TB patients tested for HIV was 60% in 2010, 69% in 2011, 74% in 2012, 78% in 2013, 79% in 2014 and 81% in 2015.

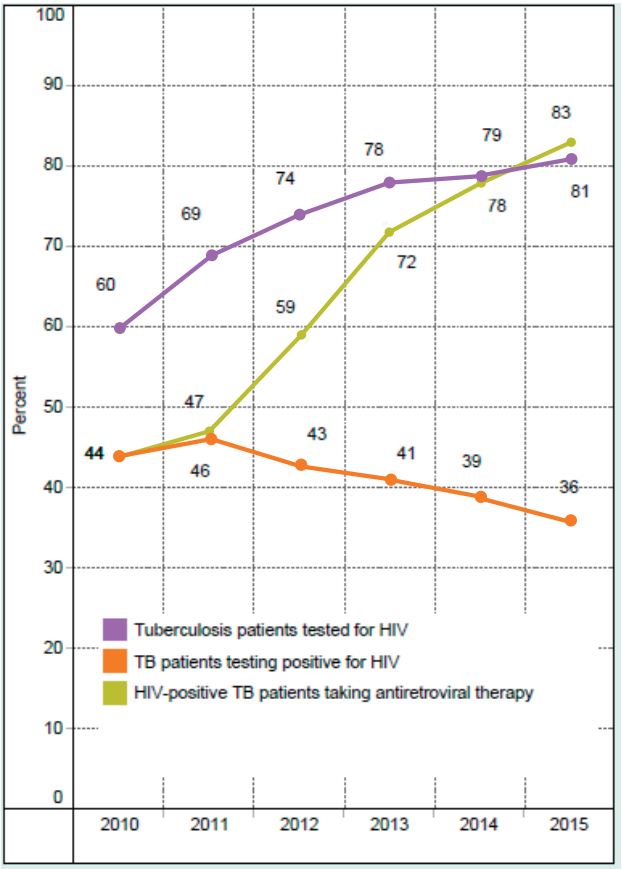
HIV testing among TB patients was universal or near-universal in 16 countries in 2015: 100% in Benin, Cabo Verde, Eritrea, Nigeria, Sao Tome and Principe, Seychelles, Swaziland, Togo and Uganda; 99% in Mozambique; 98% in Namibia; and 97% in Burkina Faso, Kenya, Mauritius, Sierra Leone and South Africa.

Figure 109 Percentage of TB patients who tested positive for HIV in the African Region, 2010 and 2016



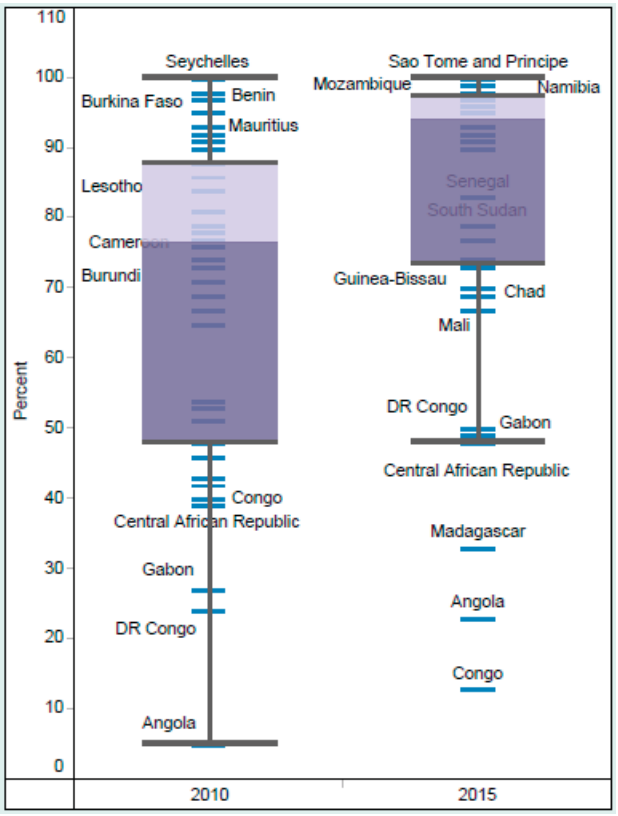
Data source: WHO

Figure 110 Trend in TB/HIV co-infection in the African Region



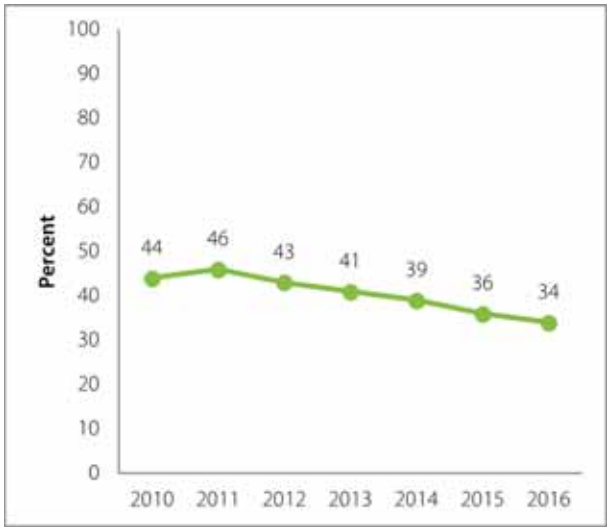
Data source: WHO

Figure 111 Percent of TB patients who were tested for HIV in the African Region



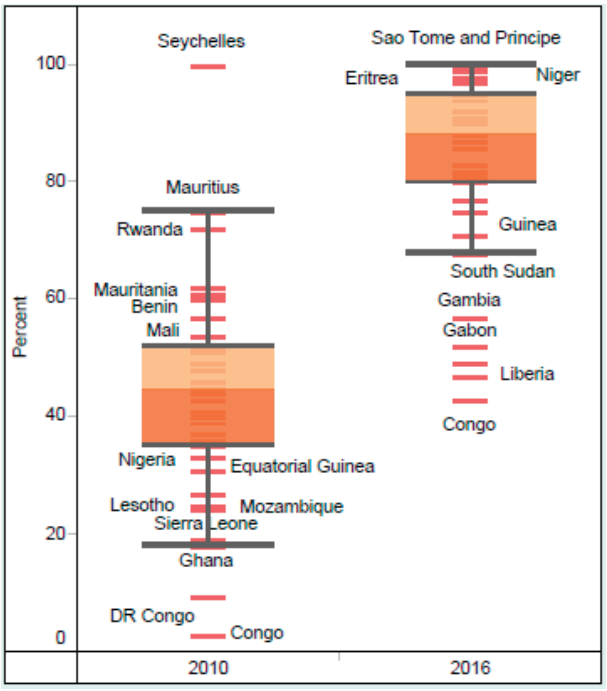
Data source: WHO, 2015

Figure 112 Percentage of TB patients who tested positive for HIV in the African Region



Data source: WHO, 2016

Figure 113 Percent of HIV positive TB patients receiving antiretroviral treatment in the African Region



Data source: WHO, 2016

Table 33 Trend in the percentage of TB patients tested for HIV by country in the African Region

	2010	2011	2012	2013	2014	2015
Algeria						
Angola	4.9	10	23	40	50	23
Benin	98	99	98	94	96	100
Botswana	81	97	91	97	91	91
Burkina Faso	93	89	94	96	96	97
Burundi	71	71	82	87	91	95
Cabo Verde	–	90	89	92	99	100
Cameroon	78	81	82	82	87	92
Central African Republic	39	33	46	45	51	48
Chad	39	38	44	40	54	69
Comoros		3.4	100	3.3	0.7	–
Congo	40	20	17	30	13	13
Côte d'Ivoire	73	80	85	90	93	95
Democratic Republic of the Congo	24	27	31	44	46	50
Equatorial Guinea	92	100	–	–	60	73
Eritrea	–	–	59	75	95	100
Ethiopia	43	41	65	71	75	77
Gabon	27	46	100	100	40	49
The Gambia	97	74	78	78	84	90
Ghana	67	79	78	73	77	83
Guinea	51	56	65	75	63	79
Guinea-Bissau	46	50	68	61	66	70
Kenya	91	93	95	94	95	97
Lesotho	84	89	90	97	93	96
Liberia	53	55	42	73	56	73
Madagascar	65	58	17	20	23	33
Malawi	88	83	93	92	93	93
Mali	42	35	100	36	43	67
Mauritania	24	0.7	–	–	–	–
Mauritius	95	93	96	96	96	97
Mozambique	88	91	94	95	93	99
Namibia	76	84	89	92	90	98
Niger	48	44	46	53	64	74
Nigeria	79	81	84	88	92	100
Rwanda	98	97	99	98	99	96
Sao Tome and Principe	92	100	99	91	100	100
Senegal	69	76	78	82	83	83
Seychelles	100	100	100	100	100	100
Sierra Leone	74	78	87	91	87	97
South Africa	54	83	90	94	93	97
South Sudan	–	47	51	69	67	79
Swaziland	86	92	100	91	97	100
Togo	77	84	91	97	97	100
Uganda	81	80	86	91	95	100
United Republic of Tanzania	90	88	83	83	91	93
Zambia	84	86	87	90	93	95
Zimbabwe	86	90	91	92	89	96
Africa	60	69	74	78	79	81

Data source: WHO, 2015

Table 34 Percent of TB patients who tested positive for HIV by country in the African Region

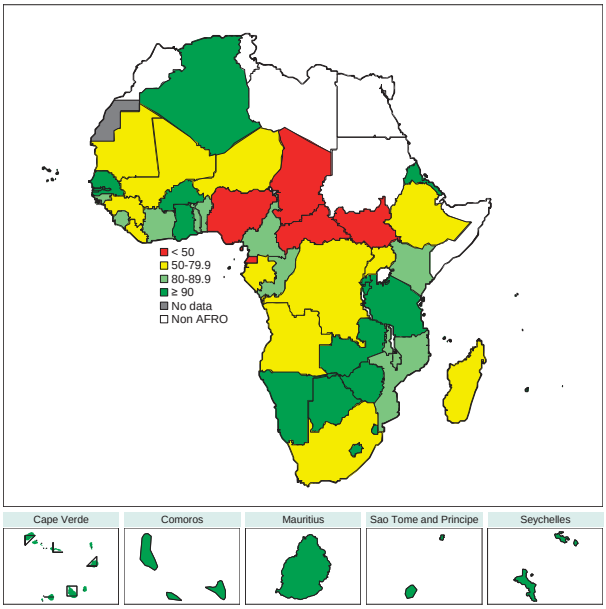
	2010	2011	2012	2013	2014	2015	2016
Algeria	–	–	–	–	–	–	–
Angola	67	15	9.6	11	10	12	10
Benin	16	17	16	16	–	15	15
Botswana	65	63	60	60	60	60	60
Burkina Faso	18	17	14	13	12	9.3	9.7
Burundi	23	22	19	15	14	14	12
Cabo Verde	24	26	27	25	24	24	22
Cameroon	–	13	12	8.3	9.3	12	8.1
Central African Republic	43	38	37	38	37	36	34
Chad	33	39	39	40	34	39	30
Comoros	17	23	20	23	19	22	22
Congo	–	100	3.3	100	100	–	100
Côte d'Ivoire	18	31	33	27	29	38	16
Democratic Republic of the Congo	18	16	16	14	14	12	12
Equatorial Guinea	29	26		45	40	50	56
Eritrea	–	–	8.6	6.6	6.1	5.4	6
Ethiopia	15	8.4	10	11	9.7	8.3	7.6
Gabon	59	26	16	11	26	29	21
The Gambia	11	–	16	14	20	17	18
Ghana	26	23	24	24	24	22	23
Guinea	26	26	25	23	25	24	25
Guinea-Bissau	38	42	39	41	37	26	32
Kenya	41	39	38	37	36	33	31
Lesotho	77	75	74	74	72	72	73
Liberia	8	10	15	15	14	13	16
Madagascar	0.2	0.3	0.4	1.2	1.5	0.9	0.73
Malawi	63	60	59	56	54	53	53
Mali	18	21	7.2	19	14	13	12
Mauritania	15	100	–	–	–	–	–
Mauritius	6.8	7.4	8	18	12	11	14
Mozambique	61	62	58	54	52	51	44
Namibia	55	50	47	45	44	40	38
Niger	8.2	7.1	8.3	8	6.9	5.4	5
Nigeria	25	26	23	22	19	17	16
Rwanda	32	28	26	25	25	27	21
Sao Tome and Principe	12	10	14	20	18	13	20
Senegal	9.7	10	8.8	8.2	7.4	6.9	6.3
Seychelles	5.9	19	14	4.2	7.7	–	9.1
Sierra Leone	10	8.9	12	13	12	14	14
South Africa	60	65	64	62	61	57	59
South Sudan	–	12	11	15	13	12	12
Swaziland	82	77	75	74	73	80	70
Togo	28	27	24	20	21	21	22
Uganda	54	53	50	48	45	42	43
United Republic of Tanzania	38	38	38	37	35	36	34
Zambia	65	64	61	62	61	60	58
Zimbabwe	78	74	73	71	68	70	67
Africa	36	39	41	43	46	44	34

Data source: WHO, 2015

6.5 Hepatitis

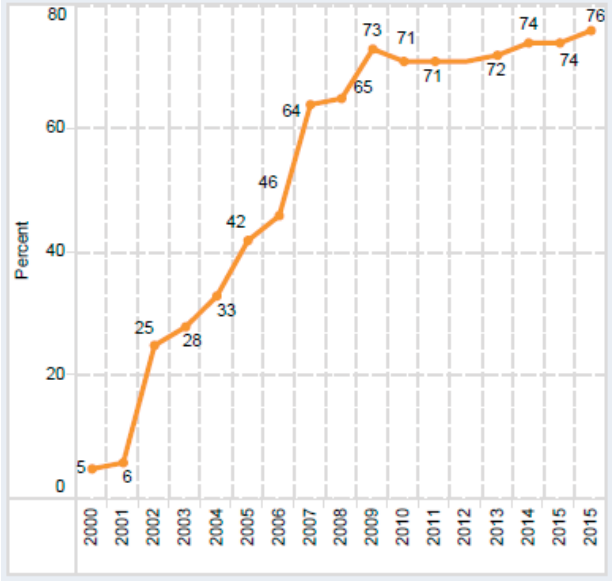
Coverage of hepatitis vaccination corresponds with coverage of penta vaccine i.e. penta vaccine includes the vaccine for hepatitis B.

Figure 114 Percentage of infants who received up to three doses of hepatitis B vaccine in the African Region



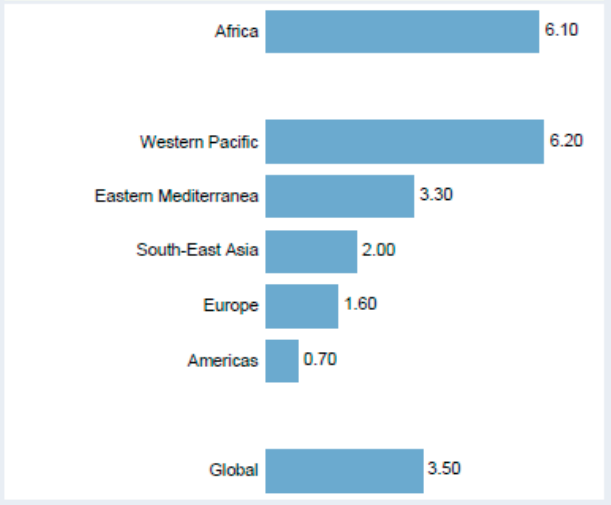
Data source: WHO, 2016

Figure 115 Trend in the percentage of infants who received up to three doses of hepatitis B vaccine in the African Region



Data source: WHO, 2016

Figure 116 Prevalence of hepatitis B infection by WHO region, 2015



Data source: WHO, 2015

6.6 Neglected tropical diseases

Neglected tropical diseases (NTDs) are a diverse group of communicable diseases mainly found in the tropical regions of the world. They mostly affect populations living in poverty, without adequate sanitation and in close contact with infectious vectors and their reservoirs. During their 10th meeting held in March 2017 at WHO Headquarters in Geneva, the Strategic and Technical Advisory Group for Neglected Tropical Diseases increased the number of NTDs to 20, with Chromoblastomycosis and other deep mycoses, scabies and other ectoparasites, and snakebite envenoming as the new additions.

In the African Region, lack of reliable data remains a major challenge to assessing the burden of NTDs and progress and performance of interventions against them. This hampers regional level prioritisation of country interventions. Indeed, many countries in the Region are grappling with a heavy burden of reporting, but the renewed interest and investments in NTDs require national level prioritization on NTD reporting. This might include creation of programmes for NTDs in countries and simplification of the reporting forms. Countries should also be encouraged to report even if values are zero.

Available data suggest that while some NTDs are fairly common, others are rare (but these could be underreported in a number of countries). Some NTDs are more common in some countries than in others. Cases of rabies are rare in the Region, with 67 cases reported in 2014.

The 2016 data for trypanosomiasis (Gambiense and Rhodesiense) was available for only 24 countries in the Region, with 2184 cases reported overall. The Democratic Republic of the Congo accounted for 81% of the reported cases of trypanosomiasis. Data on Leishmaniasis (visceral and cutaneous) were available for only five countries in 2015: Algeria (7561 cases), Ethiopia (2291 cases), Kenya (1054 cases), South Sudan (2840 cases) and Uganda (34 cases). The 2016 leishmaniasis data are as follows: Ethiopia (1915), Kenya (721) and South Sudan (4175).

Cases of leprosy were fairly common and 2016 data were available for 33 countries. The Democratic Republic of the Congo reported the biggest number of leprosy cases registered at the end of 2016 (4237), followed by Ethiopia (3970), Nigeria (2892), United Republic of Tanzania (2256) and Madagascar (1487). Data for yaws totalling 21 055 cases in 2013 was available for only three countries: Ghana (18 702 cases), Côte d'Ivoire (2256 cases) and Cameroon (97 cases).

Table 35 Global list of neglected tropical diseases

1. Dengue and Chikungunya
2. Rabies
3. Trachoma
4. Leprosy
5. Human African Trypanosomiasis
6. Leishmaniasis
7. Taeniasis/Neurocysticercosis
8. Dracunculiasis
9. Echinococcosis
10. Scabies
11. Foodborne trematodiases
12. Lymphatic filariasis
13. Onchocerciasis (River blindness)
14. Schistosomiasis
15. Soil transmitted helminthiasis
16. Buruli ulcer
17. Chagas disease
18. Yaws
19. Mycetoma, Chromoblastomycosis and other deep mycoses
20. Snakebite envenoming

Data source: WHO, 2017

Data for preventive treatment of some of the NTDs were available for some countries. These showed that coverage of preventive treatment of at-risk populations varied from country to country and by disease. In countries that had data, coverage of preventive treatment for trachoma and schistosomiasis was generally lower compared to lymphatic filariasis, onchocerciasis, and soil-transmitted helminths.

In 2016, Burkina Faso had the highest coverage of preventive treatment for trachoma, with all the at-risk population receiving preventive antibiotics for trachoma, followed by Guinea Bissau (88%), Malawi (78.9%), Uganda (72.8%), and Ethiopia (63.6%). None of the at-risk populations in Burundi and Mauritania received antibiotic treatment for trachoma in 2016.

Coverage of preventive treatment for lymphatic filariasis in 2016 ranged from as low as 0.9% in Angola to as high as 92.1% in Zambia, with a median of 70% and mean of 59.3%. Angola also had the lowest coverage of preventive treatment for onchocerciasis (2.2%). Uganda had a near universal coverage of preventive treatment for onchocerciasis (96.6%), followed by Cote d'Ivoire (95.4%), and Burkina Faso (95.0%).

Table 36 Burden of NTDs and coverage of interventions for preventions of selected NTDs

	Reported number of cased					
	Buruli ulcer	Trypanosomiasis[1]	Leishmaniasis[2]	Leprosy	Rabies	Yaws
	2016	2015	2015	2015	2014	2013
Algeria	–	–	7561	–	–	–
Angola	–	35	–	–	–	–
Benin	312	0	–	174	–	–
Botswana	–	–	–	–	–	–
Burkina Faso	–	1	–	187	–	–
Burundi	–	–	–	–	–	–
Cabo Verde	–	–	–	–	–	–
Cameroon	85	6	–	361	–	97
Central African Republic	–	147	–	–	–	–
Chad	–	67	–	–	–	–
Comoros	–	–	–	343	–	–
Congo	–	36	–	59	–	–
Côte d'Ivoire	376	3	–	891	–	2256
Democratic Republic of the Congo	175	2351	–	4237	–	–
Equatorial Guinea	–	0	–	15	–	–
Eritrea	–	–	–	5	–	–
Ethiopia	–	–	2291	3970	–	–
Gabon	39	9	–	20	–	–
The Gambia	–	–	–	12	–	–
Ghana	371	0	–	302	–	18 702
Guinea	–	29	–	184	–	–
Guinea-Bissau	–	–	–	–	6	–
Kenya	–	0	1054	–	–	–
Lesotho	–	–	–	2	–	–
Liberia	–	–	–	–	–	–
Madagascar	–	–	–	1487	8	–
Malawi	–	30	–	–	–	–
Mali	–	0	–	222	–	–
Mauritania	–	–	–	18	–	–
Mauritius	–	–	–	–	0	–
Mozambique	–	–	–	1335	–	–
Namibia	–	–	–	–	–	–
Niger	–	0	–	378	–	–
Nigeria	235	0	–	2892	–	–
Rwanda	–	–	–	34	–	–
Sao Tome and Principe	–	–	–	–	–	–
Senegal	–	–	–	248	2	
Seychelles	–	–	–	–	0	–
Sierra Leone	–	–	–	–		–
South Africa	–	–	–	35	6	–
South Sudan	–	45	2840	–	–	–
Swaziland	–	–	–	–	–	–
Togo	83	0	–	96	–	–
Uganda	–	32	34	241	25	–
United Republic of Tanzania	–	2	–	2256	4	–
Zambia	–	8	–	–	–	–
Zimbabwe	–	3	–	–	16	–
Africa	1676	2804	13 780	20 004	67	21 055

[1] Trapanosoma Gambiense and Rhodesiense combined; [2]Cutenous and visceral leishmaniasis combined; [3]Coverage among school-age children

Data source: WHO, 2015

Percentage of at risk populations that received preventive treatment					
Lymphatic filarialsis	Oncocerciasis	Schistosomiasis	Soil transmitted heliminths[3]	Trachoma	
2016	2016	2016	2016	2016	
–	–	–	–	–	Algeria
0.9	2.2	32.8	41.8	–	Angola
56.4	57.1	35.0	93.8	36.8	Benin
–	–	–	–	–	Botswana
63.9	95.0	70.6	100.0	102.3	Burkina Faso
–	–	30.9	97.3	0.0	Burundi
–	–	–	62.6	–	Cabo Verde
70.7	75.1	43.7	90.6	25.7	Cameroon
15.7	49.9	39.4	22.0	17.5	Central African Republic
51.4	67.8	–	9.0	37.6	Chad
–	–	–	–	–	Comoros
11.6	79.3	18.2	4.9	–	Congo
73.1	95.4	48.3	76.2	32.3	Côte d'Ivoire
41.5	76.2	42.1	61.4	12.9	Democratic Republic of the Congo
–	–	–	–	–	Equatorial Guinea
–	–	–	–	18.0	Eritrea
41.5	80.1	29.2	61.2	63.6	Ethiopia
–	–	36.7	18.9	–	Gabon
–	–	–	–	–	The Gambia
73.7	83.8	37.9	59.0	–	Ghana
72.7	66.1	10.3	77.4	52.9	Guinea
–	–	–		88.0	Guinea-Bissau
60.1	–	24.4	69.4	22.7	Kenya
–	–	–	–	–	Lesotho
73.9	73.8	12.8	84.1	–	Liberia
44.0	–	21.7	87.2	–	Madagascar
–	82.9	64.5	91.5	78.9	Malawi
69.2	72.1	58.8	100.0	1.2	Mali
–	–	–	–	0.0	Mauritania
–	–	–	–	–	Mauritius
73.9		43.3	91.4	45.4	Mozambique
–	–	–	–	–	Namibia
–	–	–	–	52.4	Niger
54.0	66.6	39.9	56.9	36.5	Nigeria
–	–	–	100.0	–	Rwanda
–	–	–	–	–	Sao Tome and Principe
71.4	68.7	19.3	94.7	14.9	Senegal
–	–	–	–	–	Seychelles
78.3	78.8	81.8	95.8	–	Sierra Leone
–	–	–	100.0	–	South Africa
–	–	16.1	13.0	8.9	South Sudan
–	–	51.6	77.7	–	Swaziland
–	54.5	38.7	99.8	–	Togo
72.2	96.6	36.7	57.5	72.8	Uganda
82.4	66.9	38.3	79.4	7.0	United Republic of Tanzania
92.1	–	20.2	55.8	40.5	Zambia
78.6	–	51.5	86.9	7.4	Zimbabwe
59.3	70.9	37.7	70.2	35.0	Africa

Chapter 7. Noncommunicable diseases

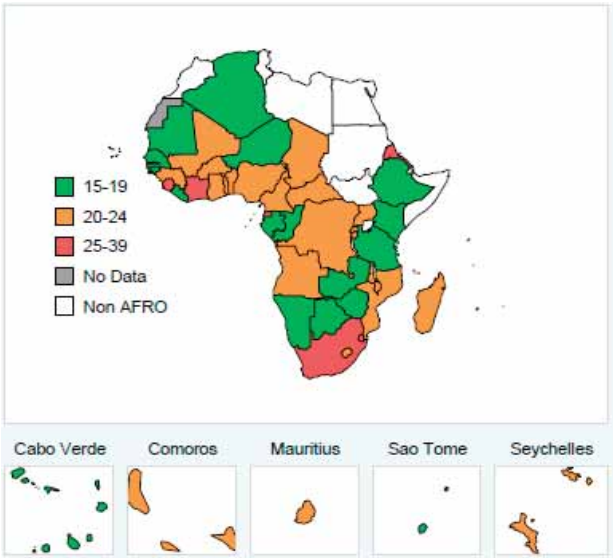
SDG Target 3.4: By 2030, reduce by one third premature mortality from noncommunicable diseases through prevention and treatment and promote mental health and well-being.

Noncommunicable diseases (NCDs), such as heart disease, stroke, cancer, chronic respiratory diseases and diabetes, are the leading cause of mortality in the world, and their burden is growing both in the WHO African Region and globally. As mentioned under causes of death in chapter 3, ischaemic heart disease and stroke are the world's biggest killers, accounting for a combined 15 million deaths globally in 2015.

The trend in the WHO African Region suggests that it will not be long before Ischaemic heart disease and stroke overtake lower respiratory tract infections, HIV/AIDS and diarrhoeal diseases as the leading cause of death. In the year 2000, stroke and Ischaemic heart disease were ranked 8th and 9th leading causes of death, respectively, but in 2015, they were in the 4th and 5th position. When both stroke and ischaemic heart diseases are combined, they rank second among the leading causes of death in the Region.

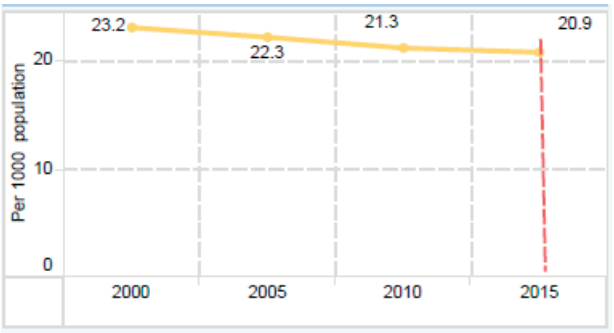
Most of the risk factors for NCDs are modifiable and include tobacco use, harmful alcohol use, unhealthy diet, insufficient physical activity, overweight/obesity, raised blood pressure, raised blood sugar and raised cholesterol. Estimates by WHO however suggest that the prevalence of these modifiable risk factors in the WHO African Region has reached epidemic proportions and greater efforts are required to curb their rapid rise.

Figure 117 The probability of dying between the ages 30 and 70 years from cardiovascular disease, cancer, diabetes or chronic obstructive respiratory disease (%) in the African Region



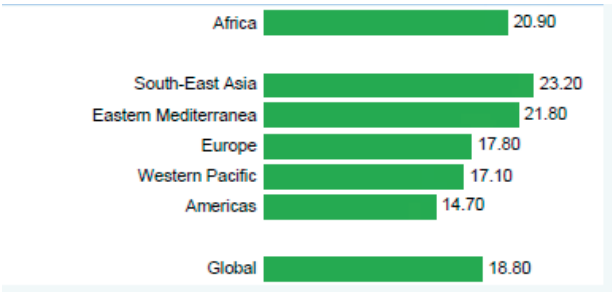
Data source: WHO, 2015

Figure 118 Probability of dying between ages 30 and 70 from cardiovascular disease, cancer, diabetes, or chronic respiratory (%) in the African Region



Data source: WHO, 2015

Figure 119 Probability of dying between ages 30 and 70 from cardiovascular disease, cancer, diabetes or chronic respiratory (%) by WHO region

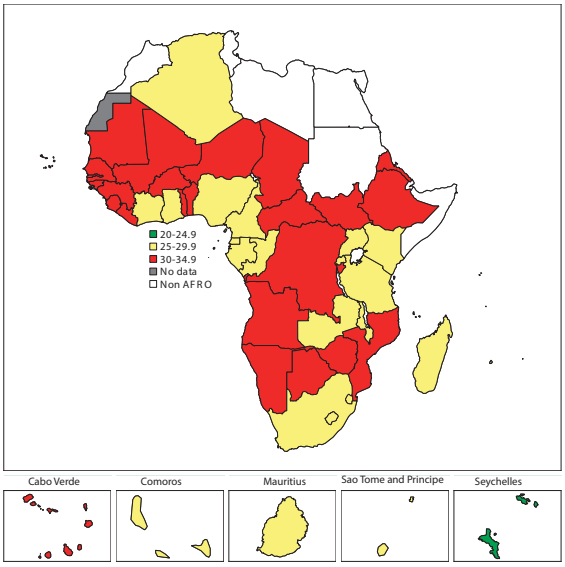


Data source: WHO, 2015

7.1 Prevalence of raised blood pressure

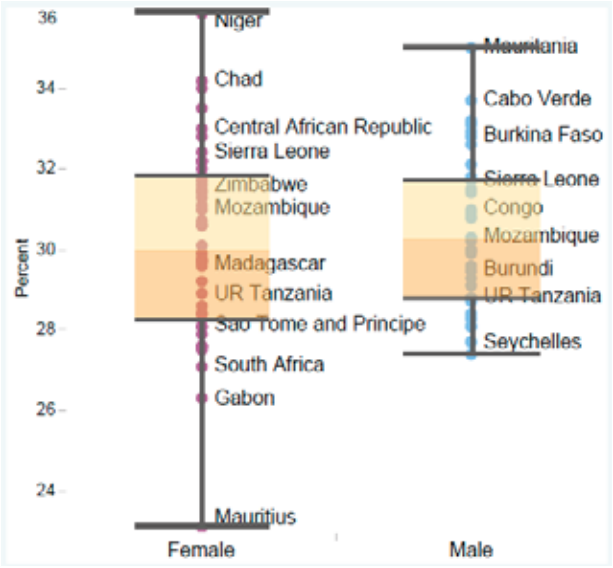
On average, close to 30% of adults 18+ years in the Region have raised blood pressure (systolic blood pressure ≥140 mmHq or diastolic blood pressure ≥90mmHq). In 2015, prevalence of raised blood pressure among adult males 18+ years ranged from 22.7% in Nigeria to 31.8% in Mauritania, with a median of 28.0%; and among adult females ranged from 20.2% in Seychelles to 35.8% in Niger with a median of 28.4%.

Figure 120 Percentage of adults ≥18 years with raised blood pressure in the African Region, 2014



Data source: WHO, 2014

Figure 121 Percentage of adults ≥18 years with raised blood pressure by sex in the African Region, 2014

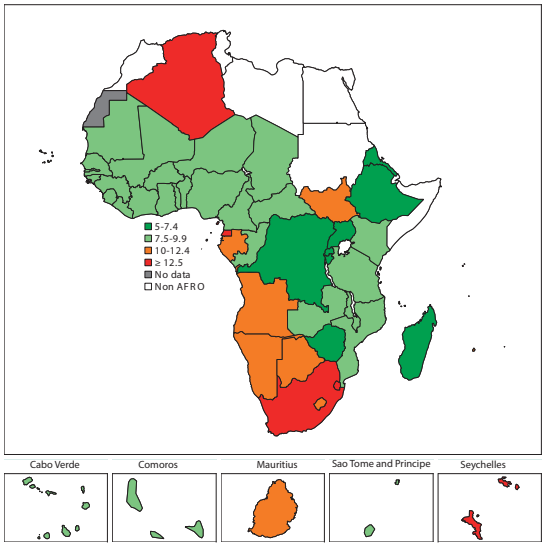


Data source: WHO, 2014

7.2 Prevalence of raised blood glucose

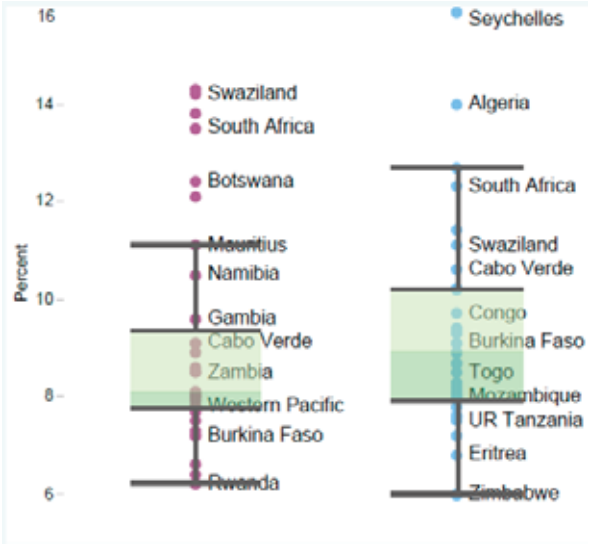
About 5% of the population in the WHO African Region has raised blood glucose, defined as a fasting plasma glucose value ≥ 7.0 mmol/L (126 mg/dl) or on medication for raised blood glucose. In 2014, prevalence of raised blood glucose ranged from 2.6% in Burundi to 14.2% in Mauritius with a median of 5.0%. This is slightly higher than the prevalence in 2010 which ranged from 2.3% in Burundi to 13.1% in Mauritius with a median of 4.5%.

Figure 122 Percentage of adults ≥18 years with raised fasting blood glucose in the African Region, 2014



Data source: WHO, 2014

Figure 123 Percentage of adults 18 years with raised fasting blood glucose in the African Region, 2014



Data source: WHO, 2014

Table 37 Prevalence of raised blood pressure among adults 18 years or older (%) in the African Region

	2010		2011		2012		2013		2014		2015	
	M	F	M	F	M	F	M	F	M	F	M	F
Algeria	26.8	26.9	26.5	26.4	26.3	26	26	25.5	25.7	25.1	25.4	24.6
Angola	30.2	30.3	30.1	30.2	30	30	29.9	29.9	29.8	29.7	29.6	29.6
Benin	28.7	29	28.4	28.8	28	28.6	27.7	28.5	27.4	28.3	27.1	28.1
Botswana	30	30.6	29.8	30.4	29.7	30.2	29.5	29.9	29.4	29.7	29.3	29.5
Burkina Faso	31.8	33.2	31.7	33.2	31.7	33.2	31.6	33.2	31.4	33.2	31.3	33.2
Burundi	26.2	29.8	26.4	30.1	26.6	30.3	26.8	30.6	27	30.9	27.3	31.1
Cabo Verde	26.6	25.9	26.2	25.7	25.9	25.4	25.5	25.2	25.2	24.9	24.9	24.6
Cameroon	32.2	29.7	31.9	29.4	31.5	29.1	31.2	28.8	30.9	28.4	30.5	28.1
Central African Republic	31.6	30.9	31.5	30.9	31.5	30.9	31.5	30.9	31.4	30.8	31.4	30.8
Chad	31.9	32.8	31.8	33	31.8	33.2	31.7	33.4	31.7	33.6	31.6	33.8
Comoros	27	27.6	27.1	27.7	27.2	27.8	27.3	27.9	27.3	28	27.4	28.2
Congo	28.4	26.1	28.2	25.8	28	25.6	27.8	25.4	27.6	25.1	27.5	24.9
Côte d'Ivoire	29	27.7	28.8	27.6	28.6	27.4	28.3	27.2	28.1	27	27.8	26.8
Democratic Republic of the Congo	29.5	27.9	29.5	27.8	29.4	27.8	29.4	27.7	29.3	27.6	29.3	27.6
Equatorial Guinea	29.4	27.8	29.3	27.8	29.3	27.7	29.3	27.7	29.2	27.7	29.2	27.7
Eritrea	27.8	28.9	27.9	29	28	29.2	28.1	29.3	28.1	29.4	28.2	29.5
Ethiopia	28.2	30.4	28.3	30.7	28.4	30.9	28.6	31.2	28.7	31.5	28.8	31.7
Gabon	29.3	24.8	29	24.4	28.7	24.1	28.4	23.7	28.1	23.3	27.8	23
The Gambia	31	29.7	30.7	29.5	30.5	29.4	30.2	29.2	29.9	29	29.6	28.8
Ghana	26.2	24.1	25.9	23.9	25.6	23.6	25.3	23.3	24.9	23.1	24.6	22.8
Guinea	29.2	31.2	29.2	31.3	29.1	31.3	29.1	31.3	29	31.4	29	31.4
Guinea-Bissau	30.5	31.4	30.4	31.3	30.2	31.2	30	31	29.9	30.9	29.7	30.7
Kenya	26.3	26.3	26.3	26.4	26.3	26.4	26.4	26.5	26.4	26.6	26.5	26.7
Lesotho	26.4	30.5	26.4	30.6	26.3	30.6	26.2	30.7	26.2	30.7	26.1	30.8
Liberia	29.2	28.9	29	28.8	28.8	28.7	28.6	28.6	28.4	28.4	28.2	28.3
Madagascar	28	28.1	28	28.1	28	28.2	27.9	28.2	27.9	28.2	27.8	28.2
Malawi	27.1	28.6	27.2	28.9	27.4	29	27.5	29.2	27.6	29.4	27.8	29.6
Mali	31.3	33.5	31.3	33.6	31.2	33.6	31.2	33.6	31.2	33.6	31.2	33.6
Mauritania	33.5	32.8	33.2	32.5	32.8	32.2	32.5	32	32.1	31.7	31.8	31.4
Mauritius	27	23.7	26.9	23.6	26.8	23.5	26.7	23.5	26.6	23.4	26.5	23.4
Mozambique	28.4	29.3	28.3	29.3	28.2	29.4	28.2	29.5	28.1	29.6	28.1	29.7
Namibia	29.3	29.4	29.1	29.2	28.9	29	28.7	28.8	28.4	28.6	28.2	28.4
Niger	31.8	35.2	31.7	35.3	31.6	35.4	31.5	35.6	31.4	35.7	31.3	35.8
Nigeria	24.8	26.5	24.4	26.3	23.9	26	23.5	25.7	23.1	25.3	22.7	25
Rwanda	25.2	27.6	25.3	27.7	25.3	27.7	25.2	27.8	25.2	27.8	25.2	27.9
Sao Tome and Principe	28.7	26.2	28.4	25.9	28	25.6	27.7	25.3	27.3	24.9	26.9	24.6
Senegal	30.9	30.9	30.6	30.8	30.4	30.7	30.2	30.6	29.9	30.5	29.7	30.4
Seychelles	27.4	21.1	27.2	20.9	27	20.7	26.8	20.5	26.6	20.4	26.4	20.2
Sierra Leone	30.4	31.8	30.2	31.7	30	31.5	29.8	31.3	29.6	31.2	29.4	31
South Africa	28.5	27.6	28.3	27.3	28.1	27	27.8	26.7	27.6	26.4	27.4	26.1
South Sudan	-	-	-	-	-	-	-	-	-	-	-	-
Swaziland	28.5	30.5	28.5	30.6	28.3	30.6	28.2	30.7	28.2	30.8	28.1	30.9
Togo	29.2	29.6	29	29.5	28.8	29.4	28.7	29.4	28.5	29.3	28.3	29.2
Uganda	25.7	26.6	25.9	26.9	26.1	27.1	26.3	27.3	26.5	27.5	26.7	27.7
United Republic of Tanzania	26.3	27.5	26.4	27.6	26.5	27.6	26.5	27.7	26.6	27.7	26.6	27.7
Zambia	28	26.9	27.9	26.8	27.8	26.7	27.8	26.6	27.7	26.6	27.6	26.5
Zimbabwe	27.5	29.3	27.4	29.3	27.3	29.2	27.1	29.2	27	29.2	26.9	29.2

Data source: WHO

Table 38 Prevalence of raised blood glucose by country and year in the African Region

	2010	2014
Algeria	9.1	10.5
Angola	5	5.6
Benin	4.7	5.1
Botswana	5.4	6
Burkina Faso	3.8	4.2
Burundi	2.3	2.6
Cabo Verde	6.3	6.8
Cameroon	4.3	4.7
Central African Republic	5.1	5.7
Chad	4.2	4.6
Comoros	5.1	5.9
Congo	5.1	5.7
Côte d'Ivoire	4.7	5
Democratic Republic of the Congo	3.8	4.3
Equatorial Guinea	6.7	7.6
Eritrea	3	3.4
Ethiopia	3.5	3.8
Gabon	7.6	8.1
The Gambia	5.2	5.8
Ghana	4.5	4.8
Guinea	4.3	4.7
Guinea-Bissau	4.8	5.2
Kenya	3.5	4
Lesotho	5.8	6
Liberia	5	5.6
Madagascar	3.6	3.9
Malawi	4	4.3
Mali	4.5	5
Mauritania	6.1	6.7
Mauritius	13.1	14.2
Mozambique	4.3	4.6
Namibia	5	5.4
Niger	3.8	4.1
Nigeria	4	4.3
Rwanda	2.5	2.8
Sao Tome and Principe	-	-
Senegal	4.8	5.1
Seychelles	9.2	10.1
Sierra Leone	4.3	4.8
South Africa	9	9.8
South Sudan	-	-
Swaziland	6.1	6.6
Togo	4.4	4.9
Uganda	2.5	2.8
United Republic of Tanzania	3.9	4.3
Zambia	3.9	4.2
Zimbabwe	4.5	4.6

Data source: WHO

Table 39 Prevalence of raised total cholesterol among adults aged ≥25 years in the African Region, 2008

	Male	Female	Both sexes
Algeria	37.3	41.4	39.4
Angola	29.7	31.8	30.9
Benin	18.9	21.4	20.3
Botswana	36.1	38.9	37.9
Burkina Faso	16.3	18.8	17.7
Burundi	17.1	20.2	18.9
Cabo Verde	19.5	24	21.9
Cameroon	23.7	24.8	24.5
Central African Republic	20.3	23.7	22.2
Chad	16.3	19.2	17.9
Comoros	22.7	25	24
Congo	26.7	30.7	29
Côte d'Ivoire	19.2	22.8	21
Democratic Republic of the Congo	14.2	17.6	16.1
Equatorial Guinea	39.8	41.8	40.9
Eritrea	21	21.5	21.4
Ethiopia	21	21.5	21.3
Gabon	40.5	44.2	42.5
The Gambia	18.1	22.5	20.3
Ghana	15.6	20.6	18.1
Guinea	16.4	20.6	18.7
Guinea-Bissau	15.4	18.4	17
Kenya	26.3	27.2	26.9
Lesotho	21.1	24.1	23
Liberia	14.1	17.8	16.1
Madagascar	23.8	24.8	24.4
Malawi	23.1	24.9	24.1
Mali	18	20.3	19.4
Mauritania	21.3	22.9	22.2
Mauritius	47.8	46	47.1
Mozambique	26.1	25.9	26
Namibia	31.1	34.5	33.1
Niger	14.2	16.5	15.2
Nigeria	14	19.4	16.8
Rwanda	20.7	24.6	23
Sao Tome and Principe	15.9	19.7	18.1
Senegal	19.9	22.9	21.4
Seychelles	59.1	55.3	57.7
Sierra Leone	14.3	17.6	16.1
South Africa	31.6	38	35.5
South Sudan	-	-	-
Swaziland	29.2	32.7	31.2
Togo	15.2	18.7	17.1
Uganda	20	24	22.2
United Republic of Tanzania	21.6	25.5	23.7
Zambia	26.5	28.5	27.7
Zimbabwe	21.8	25.3	23.9
African Region	21.2	24.8	23.1

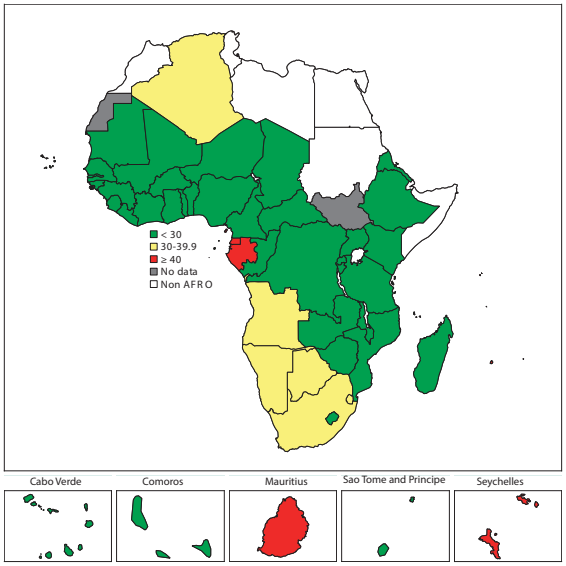
Data source: WHO

7.3 Prevalence of raised total cholesterol

Recent WHO estimates for blood cholesterol in the WHO African Region are not available but by 2008, up to 23.1% of adults ≥25 years in the Region (range: 15.2% – 57.7%) had raised total blood cholesterol, defined as total blood cholesterol value ≥ 5.0 mmol/l. Given the current increase in rates of ischaemic heart disease and stroke in the Region, it can be assumed that the current rates of total blood cholesterol are considerably higher than they were in 2008 because there is a direct correlation between raised blood cholesterol and occurrence of ischaemic heart disease and stroke. Raised blood cholesterol is estimated to account for up to a third of global ischaemic heart diseases.

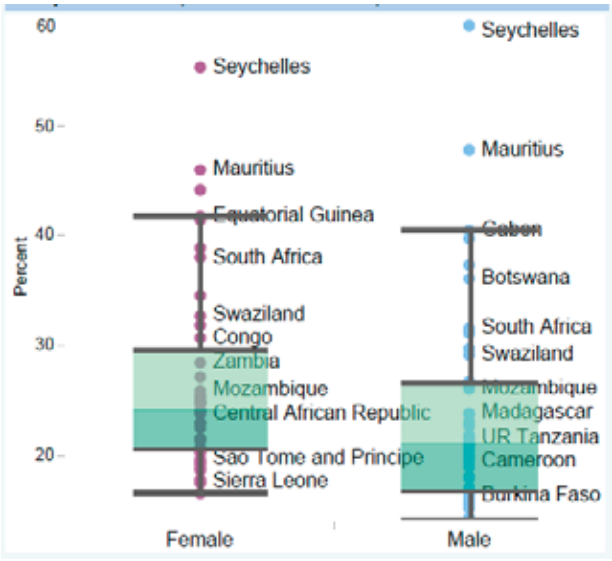
Male-female difference was considerable, with the prevalence rate higher among females (24.8%) than males (21.2%). This difference was retained in all but two countries: Mauritius (males 47.8% and females (46.0%), and Seychelles (males 59.1%) and females (55.3%). Seychelles had the highest prevalence of raised total cholesterol (57.7%), followed by Mauritius (47.1%), Gabon (42.5%) and Equatorial Guinea (42.5%). The prevalence was lowest in Niger (15.2) followed by Sierra Leone, Liberia, and DRC (all at 16.1%).

Figure 124 Percentage of adults ≥ 25 years with raised cholesterol in the African Region, 2008



Data source: WHO

Figure 125 Percentage of adults ≥ 25 years with raised cholesterol by sex in the African Region, 2008



Data source: WHO

7.4 Physical activity

Regular and moderately intense physical activity of at least 150 minutes in a week reduces the risk of noncommunicable diseases as well as mortality from other causes. It is estimated that people who have insufficient physical activity have a 20% to 30% increased risk of all-cause mortality compared to those who engage sufficient physical activity.

In 2010, the WHO African Region ranked second in physical activity after South-East Asia, with 79.1% of the population estimated to be physically active. This means that up to 20.9% of the African population or about 177 million people in the African Region were physically inactive in 2010; this is big!

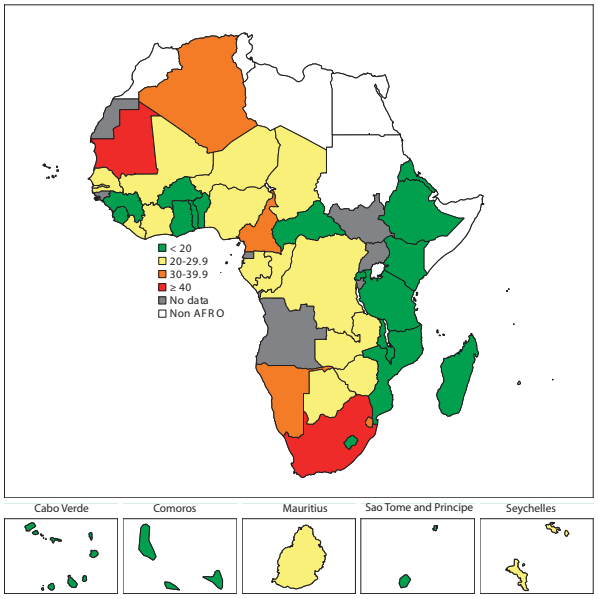
People in Mozambique were physically more active than elsewhere in the Region, with 94.2% of the population estimated to be physically active in 2010, followed by United Republic of Tanzania and Benin (93.1%), Lesotho (92.8%), Malawi (92.5%) and Guinea (90.1%). South Africa had the lowest percentage of people engaged in physical activity, with only 53.1% estimated to be physically active in 2010, followed by Mauritania (54.9%), Swaziland (63.2%), Algeria (65.6%), and Namibia (68.2%). Males in the African Region were more physically active than females, with 82.7% of males active compared to 75.6% of females.

Table 40 Percentage of adults 18+years who were physically inactive in the African Region, 2010

	Male	Female	Both sexes
Algeria	27.7	41.2	34.4
Angola	-	-	-
Benin	5.7	8.1	6.9
Botswana	21.7	32.6	27.2
Burkina Faso	15.9	20.9	18.4
Burundi	-	-	-
Cabo Verde	22.8	38.7	30.7
Cameroon	13.5	25.7	19.6
Central African Republic	10.8	13.3	12.0
Chad	21.7	27.4	24.6
Comoros	8.5	20.0	14.2
Congo	21.2	29.6	25.4
Côte d'Ivoire	18.0	27.1	22.6
Democratic Republic of the Congo	23.1	29.0	26.0
Equatorial Guinea	-	-	-
Eritrea	5.7	15.6	10.7
Ethiopia	14.0	23.9	18.9
Gabon	17.7	34.4	26.0
The Gambia	16.9	26.1	21.5
Ghana	13.1	18.0	15.6
Guinea	7.1	12.7	9.9
Guinea-Bissau	-	-	-
Kenya	17.3	21.1	19.2
Lesotho	7.5	7.0	7.2
Liberia	24.5	30.6	27.5
Madagascar	13.7	22.2	17.9
Malawi	5.6	9.4	7.5
Mali	18.2	29.1	23.7
Mauritania	38.0	52.1	45.1
Mauritius	23.1	27.3	25.2
Mozambique	5.5	6.2	5.8
Namibia	26.4	37.1	31.8
Niger	23.3	27.0	25.1
Nigeria	20.6	24.0	22.3
Rwanda	12.0	18.6	15.3
Sao Tome and Principe	10.3	20.9	15.6
Senegal	21.0	29.0	25.0
Seychelles	19.3	22.3	20.8
Sierra Leone	10.5	17.9	14.2
South Africa	42.2	51.6	46.9
South Sudan	-	-	-
Swaziland	32.8	40.8	36.8
Togo	9.9	11.0	10.4
Uganda	-	-	-
United Republic of Tanzania	6.1	7.6	6.9
Zambia	17.3	23.7	20.5
Zimbabwe	18.7	26.1	22.4

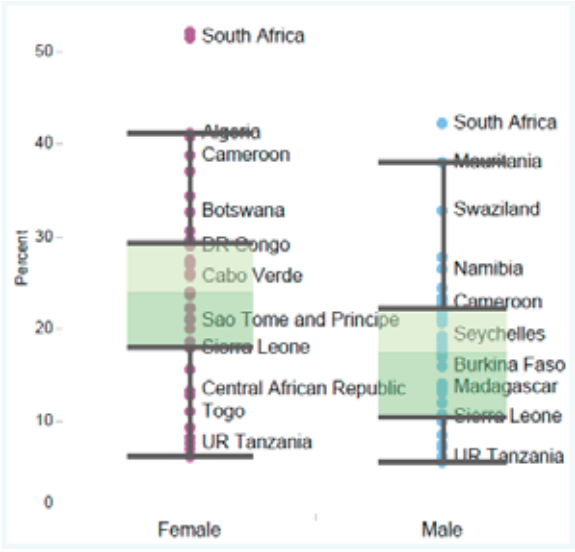
Data source: WHO

Figure 126 Percent of adults ≥ 18 years with insufficient physical activity in the African Region, 2010



Data source: WHO

Figure 127 Percent of adults ≥ 18 years with insufficient physical activity in the African Region, 2010



Data source: WHO

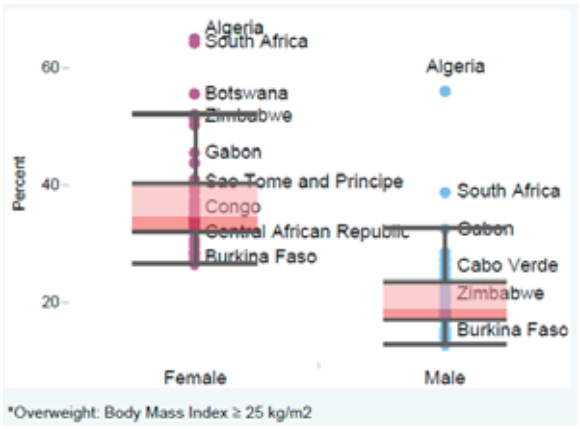
7.5 Prevalence of overweight and obesity

There has been a dramatic increase in the prevalence of overweight (BMI 25–29.9) and obesity (BMI 30 or higher) in the African Region. Since year 2000, the proportion of the population 18 years or older that is either overweight or obese has increased by up to 38.4%, from 28.4% in 2000 to 41.7% in 2016. In 2016, nearly half a billion people (428 527 965) in the African Region were either overweight or obese, assuming a constant prevalence rate in all population groups.

Women in the Region are twice as likely to be overweight or obese as males, a relative gap between males and females that has remained almost constant for decades: In 2016, 54.1% of women compared to 28.4% of males were either overweight or obese. The values were 42.7 % for women and 21.1% of males in 2006; 33.9% for women and 16.2% for males in 1996; and 25.3% for women and 11.8% for males in 1986.

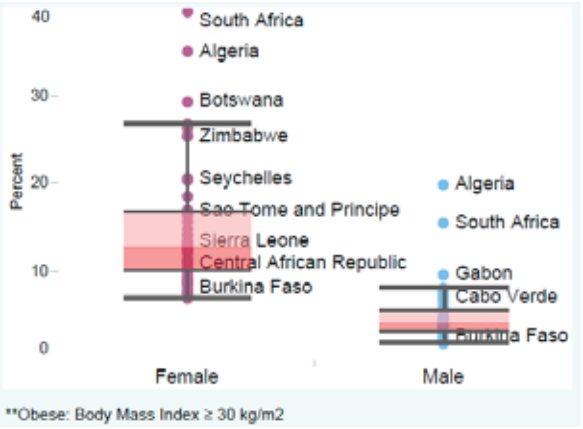
The WHO estimates show huge disparities of overweight and obesity between countries in the Region, with the absolute gap between the country with the highest and the country with the lowest prevalence of obesity or overweight among adults 18 years or older being 61% for males and 56% for females. Prevalence of overweight and obesity was higher in middle than lower income countries. In 2016, Algeria was estimated to have the highest prevalence of overweight and obesity in the African Region, with 76% of the males and up to 90% of the females aged 18 years or older either overweight or obese. Ethiopia was estimated to have the lowest prevalence of overweight and obesity, with 15% of the males and 34% of the females aged 18+ years either overweight or obese.

Figure 128 Percent of adults ≥ 18 years who were overweight in the African Region, 2016



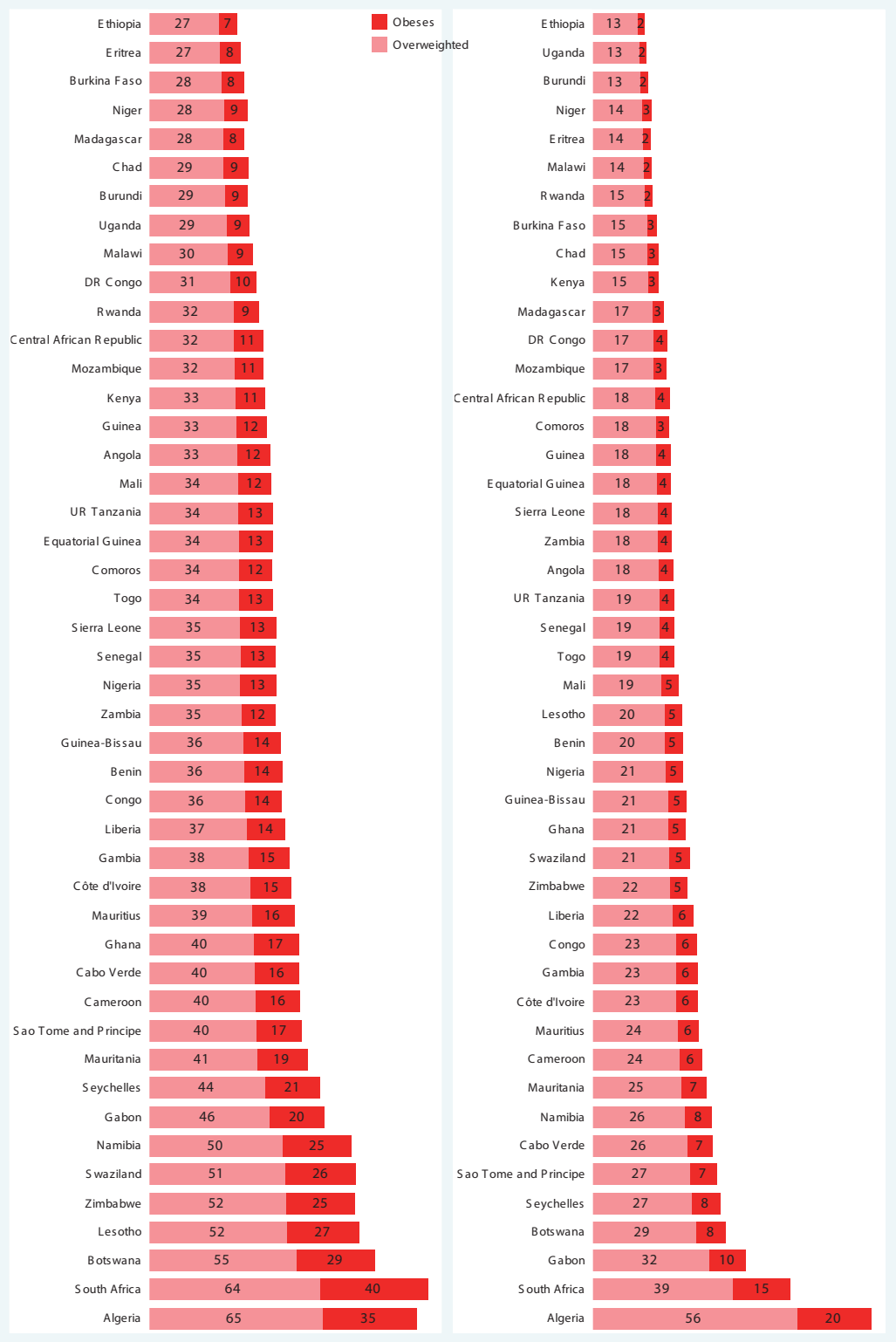
Data source: WHO

Figure 129 Percent of adults ≥ 18 years who were obese in the African Region, 2016



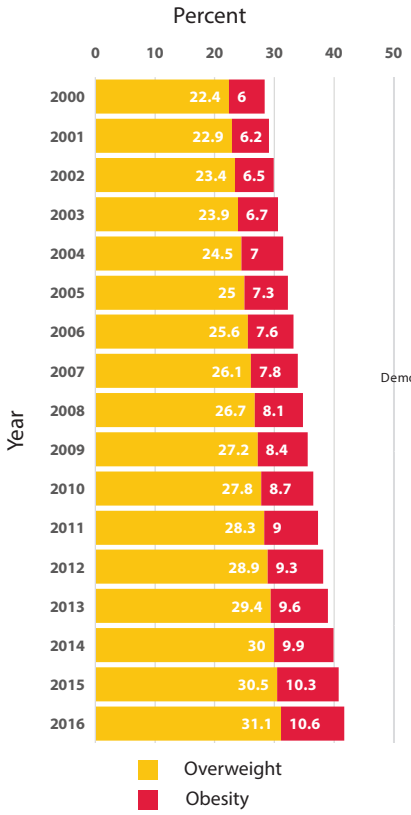
Data source: WHO

Figure 130 Prevalence of overweight and obesity among adults ≥18 years (%) by country and sex in the African Region, 2016



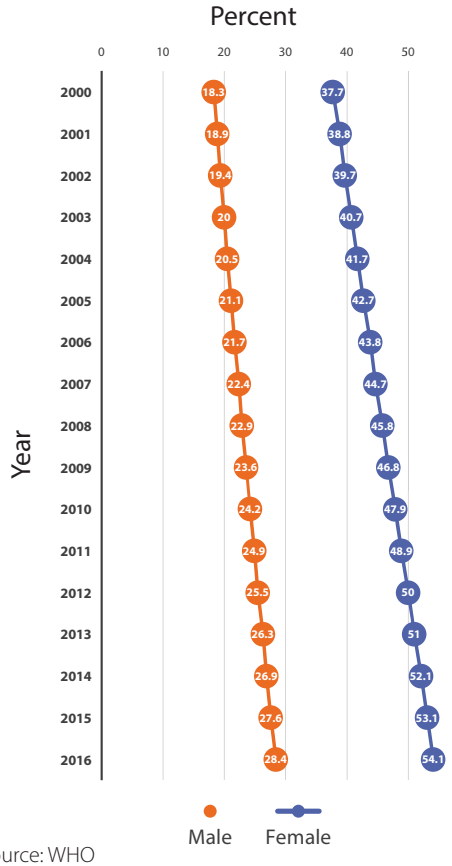
Data source: WHO, 2016

Figure 131 Trends in the prevalence of overweight and obesity in the African Region



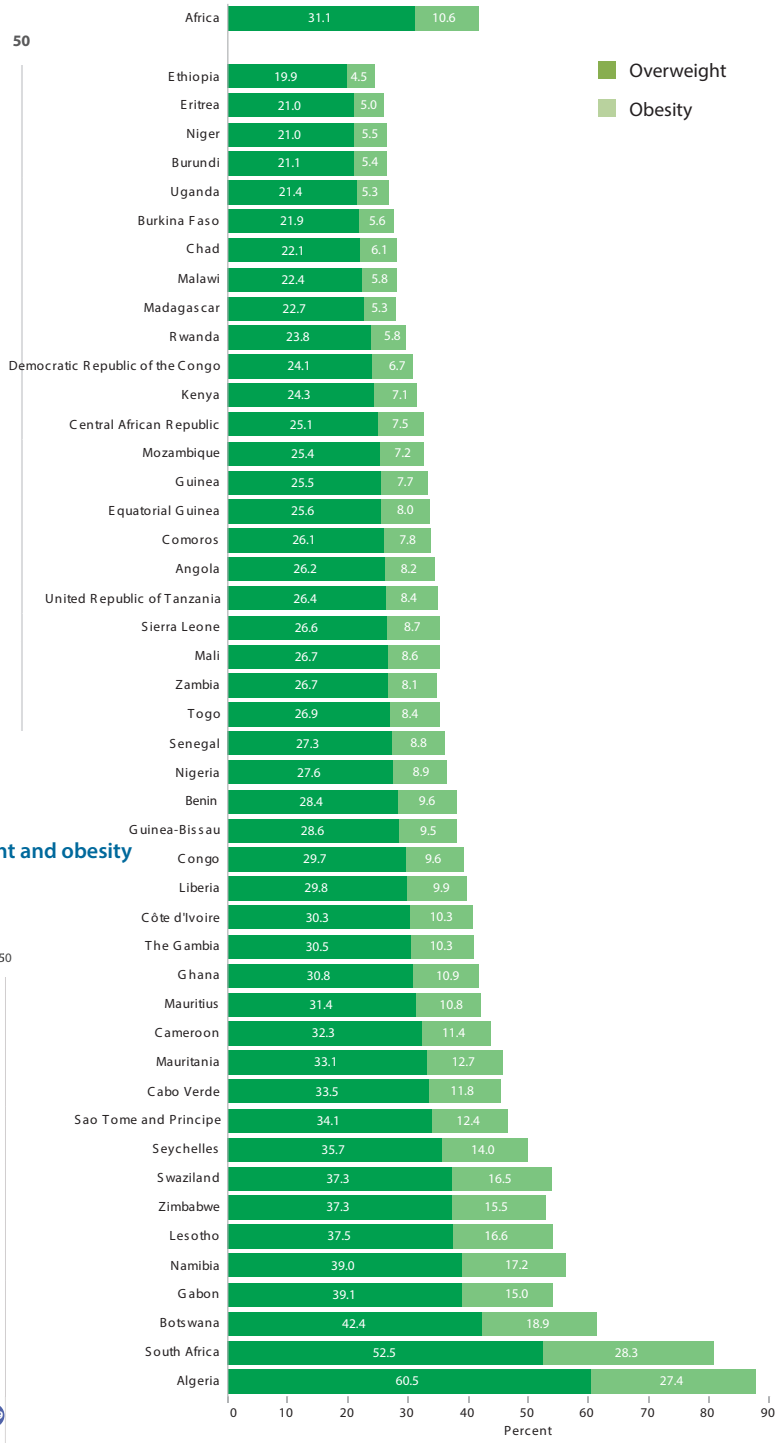
Data source: WHO

Figure 132 Trend in the prevalence of overweight and obesity by sex in the African Region



Data source: WHO

Figure 133 Prevalence of overweight and obesity by country in the African Region, 2014



Data source: WHO

Table 41 Prevalence of overweight and obesity by year in the African Region

	Obesity							Overweight						
	2010	2011	2012	2013	2014	2015	2016	2010	2011	2012	2013	2014	2015	2016
Algeria	23.3	24	24.7	25.3	26	26.7	27.4	57.4	58.2	59	59.8	60.5	61.3	62
Angola	6.2	6.5	6.8	7.1	7.5	7.9	8.2	23.6	24.2	24.8	25.5	26.2	26.8	27.5
Benin	7.6	7.9	8.2	8.6	8.9	9.3	9.6	26.1	26.6	27.2	27.8	28.4	28.9	29.5
Botswana	16.9	17.2	17.5	17.9	18.2	18.6	18.9	40.4	40.9	41.4	41.9	42.4	42.9	43.4
Burkina Faso	4	4.2	4.5	4.7	5	5.3	5.6	19.5	20.1	20.7	21.3	21.9	22.6	23.2
Burundi	4	4.2	4.4	4.6	4.9	5.1	5.4	19.1	19.6	20.1	20.6	21.1	21.6	22.2
Cabo Verde	9	9.4	9.8	10.2	10.6	11	11.4	29.8	30.4	31	31.7	32.3	33	33.6
Cameroon	9.6	9.9	10.3	10.7	11	11.4	11.8	31	31.6	32.3	32.9	33.5	34.2	34.8
Central African Republic	5.9	6.1	6.4	6.6	6.9	7.2	7.5	23	23.5	24	24.6	25.1	25.6	26.2
Chad	4.7	4.9	5.1	5.3	5.6	5.8	6.1	20.2	20.7	21.1	21.6	22.1	22.6	23.1
Comoros	6.2	6.4	6.7	6.9	7.2	7.5	7.8	24.1	24.6	25.1	25.6	26.1	26.6	27.1
Congo	7.7	8	8.3	8.6	8.9	9.2	9.6	27.4	28	28.6	29.1	29.7	30.3	30.9
Côte d'Ivoire	7.9	8.3	8.7	9	9.4	9.8	10.3	27.6	28.2	28.9	29.6	30.3	30.9	31.6
Democratic Republic of the Congo	5.1	5.3	5.6	5.9	6.1	6.4	6.7	21.8	22.4	23	23.5	24.1	24.7	25.3
Equatorial Guinea	6.3	6.5	6.8	7.1	7.4	7.7	8	23.6	24.1	24.6	25.1	25.6	26.1	26.7
Eritrea	3.7	3.9	4.1	4.3	4.5	4.8	5	19	19.5	20	20.5	21	21.5	22
Ethiopia	3.3	3.4	3.6	3.8	4	4.3	4.5	18	18.5	18.9	19.4	19.9	20.4	20.9
Gabon	12.8	13.2	13.5	13.9	14.3	14.6	15	36.8	37.4	37.9	38.5	39.1	39.6	40.2
The Gambia	8	8.4	8.7	9.1	9.5	9.9	10.3	27.7	28.4	29.1	29.8	30.5	31.2	31.9
Ghana	8.7	9.1	9.4	9.8	10.1	10.5	10.9	28.3	29	29.6	30.2	30.8	31.4	32
Guinea	5.9	6.2	6.4	6.7	7	7.4	7.7	23.3	23.8	24.4	24.9	25.5	26.1	26.6
Guinea-Bissau	7.2	7.6	7.9	8.3	8.7	9.1	9.5	25.9	26.6	27.2	27.9	28.6	29.3	29.9
Kenya	5.4	5.6	5.9	6.2	6.5	6.8	7.1	22.1	22.6	23.2	23.7	24.3	24.9	25.5
Lesotho	14.1	14.5	14.9	15.3	15.7	16.2	16.6	35	35.7	36.3	36.9	37.5	38.1	38.7
Liberia	8	8.3	8.6	8.9	9.2	9.6	9.9	27.5	28.1	28.6	29.2	29.8	30.4	30.9
Madagascar	3.9	4.1	4.3	4.5	4.8	5.1	5.3	20.5	21	21.5	22.1	22.7	23.3	23.9
Malawi	4.4	4.6	4.8	5	5.3	5.5	5.8	20.5	21	21.5	21.9	22.4	22.9	23.4
Mali	6.5	6.8	7.2	7.5	7.9	8.2	8.6	24.1	24.7	25.4	26	26.7	27.4	28.1
Mauritania	10.3	10.6	11	11.4	11.8	12.3	12.7	30.5	31.1	31.8	32.4	33.1	33.7	34.4
Mauritius	9.1	9.3	9.6	9.9	10.2	10.5	10.8	29.8	30.2	30.6	31	31.4	31.9	32.3
Mozambique	5.7	5.9	6.1	6.4	6.7	6.9	7.2	23.4	23.9	24.4	24.9	25.4	25.9	26.4
Namibia	14	14.6	15.1	15.6	16.1	16.7	17.2	35.8	36.6	37.4	38.2	39	39.8	40.6
Niger	4.1	4.3	4.5	4.8	5	5.2	5.5	19.1	19.5	20	20.5	21	21.5	22
Nigeria	6.7	7	7.4	7.7	8.1	8.5	8.9	24.9	25.6	26.2	26.9	27.6	28.3	28.9
Rwanda	4.2	4.5	4.7	5	5.3	5.6	5.8	21.4	22	22.6	23.2	23.8	24.5	25.1
Sao Tome and Principe	10	10.3	10.7	11.2	11.6	12	12.4	31.4	32.1	32.7	33.4	34.1	34.7	35.4
Senegal	7.1	7.3	7.6	7.9	8.2	8.5	8.8	25.2	25.7	26.2	26.8	27.3	27.8	28.4
Seychelles	11.7	12	12.4	12.8	13.2	13.5	14	33.4	34	34.5	35.1	35.7	36.2	36.8
Sierra Leone	6.8	7.1	7.4	7.7	8	8.3	8.7	24.5	25	25.5	26.1	26.6	27.2	27.7
South Africa	25.1	25.6	26.1	26.7	27.2	27.8	28.3	49.9	50.6	51.2	51.9	52.5	53.2	53.8
South Sudan	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Swaziland	14.1	14.5	14.9	15.3	15.7	16.1	16.5	35.1	35.7	36.2	36.8	37.3	37.9	38.4
Togo	6.5	6.8	7.1	7.4	7.8	8.1	8.4	24.6	25.2	25.8	26.3	26.9	27.5	28.1
Uganda	3.9	4.1	4.3	4.5	4.8	5	5.3	19.4	19.9	20.4	20.9	21.4	21.9	22.4
United Republic of Tanzania	6.3	6.6	6.9	7.3	7.6	8	8.4	23.8	24.4	25.1	25.7	26.4	27	27.7
Zambia	6.3	6.5	6.8	7.1	7.4	7.7	8.1	24.5	25	25.6	26.1	26.7	27.3	27.8
Zimbabwe	13.8	14.1	14.3	14.6	14.9	15.2	15.5	35.7	36.2	36.6	37	37.3	37.7	38.2
Africa	**8.7**	**9**	**9.3**	**9.6**	**10.3**	**9.9**	**10.6**	**27.8**	**28.3**	**28.9**	**29.4**	**30.5**	**30**	**31.1**

Data source: WHO

Table 42 Prevalence of overweight and obesity by sex in the African Region

	2011		2012		2013		2014		2015		2016	
	M	F	M	F	M	F	M	F	M	F	M	F
Algeria	69.9	94.5	71.4	95.9	73	97.2	74.6	98.5	76.2	99.7	77.7	101
Angola	19.5	40.8	20.3	42.1	21	43.2	21.9	44.5	22.7	45.7	23.5	47
Benin	22.4	45.5	23	46.7	23.7	47.8	24.4	49	25.2	50.3	25.9	51.5
Botswana	33.5	80.8	34.3	81.9	35.2	82.8	36	83.8	36.9	84.9	37.8	85.8
Burkina Faso	15.5	31.5	16.1	32.6	16.7	33.8	17.3	34.9	18	36.1	18.7	37.3
Burundi	14	33.1	14.4	34.2	14.8	35.3	15.2	36.4	15.6	37.5	16	38.7
Cabo Verde	27.1	52	27.9	53.2	28.7	54.4	29.5	55.6	30.4	56.9	31.3	58.1
Cameroon	29.6	51.9	30.4	53.1	31.4	54.2	32.3	55.4	33.4	56.6	34.4	57.7
Central African Republic	19.2	39	19.6	40.1	20.2	41	20.8	42	21.4	43.1	22	44.1
Chad	16.7	33.8	17.1	34.7	17.5	35.7	18.1	36.7	18.5	37.6	19.1	38.7
Comoros	19.3	42.2	19.7	43.3	20.2	44.4	20.6	45.5	21	46.7	21.5	47.9
Congo	25.5	45.9	26.3	46.9	27.1	47.9	28	48.9	28.8	49.9	29.7	50.9
Côte d'Ivoire	25.9	48.6	26.8	49.8	27.6	51	28.4	52.3	29.4	53.5	30.3	54.7
Democratic Republic of the Congo	18.3	36.5	18.8	37.4	19.5	38.5	20.2	39.6	20.8	40.6	21.6	41.7
Equatorial Guinea	19.7	42.7	20.2	43.7	20.8	44.8	21.3	45.8	21.9	47	22.5	48.1
Eritrea	14.6	30.8	15	31.7	15.4	32.7	15.9	33.8	16.3	34.8	16.7	35.9
Ethiopia	13.4	30	13.7	31	14.1	31.8	14.5	32.9	14.9	33.9	15.3	34.9
Gabon	38.4	62.3	39.4	63.2	40.4	64.1	41.3	65	42.4	65.9	43.3	66.7
The Gambia	25.7	47.8	26.5	49	27.4	50.1	28.3	51.3	29.1	52.5	30.1	53.7
Ghana	23	51.5	23.7	52.8	24.4	54	25.2	55.2	25.9	56.4	26.6	57.6
Guinea	19.4	40.1	20	41.2	20.5	42.3	21.1	43.4	21.8	44.5	22.4	45.7
Guinea-Bissau	23	44.6	23.8	45.9	24.6	47.1	25.5	48.3	26.3	49.6	27.2	50.9
Kenya	16.4	39.3	17	40.5	17.4	41.6	17.9	42.9	18.4	44.1	18.9	45.4
Lesotho	22	72.9	22.7	74.5	23.4	76	24.1	77.4	25	78.9	25.7	80.4
Liberia	25	47	25.7	48.1	26.5	49.1	27.2	50.3	27.9	51.3	28.7	52.5
Madagascar	17.7	32.1	18.2	33	18.8	34	19.4	35	20	36.1	20.7	37.1
Malawi	15.1	35.3	15.5	36.3	15.8	37.4	16.2	38.4	16.6	39.5	17	40.6
Mali	20.8	41.1	21.7	42.4	22.4	43.7	23.2	45	24	46.3	24.9	47.5
Mauritania	28.1	54.6	28.9	55.8	29.8	57.2	30.7	58.4	31.6	59.6	32.6	60.8
Mauritius	27.5	50.7	28	51.6	28.4	52.5	28.9	53.5	29.4	54.4	29.9	55.5
Mozambique	18.8	39	19.3	40	19.7	41	20.2	42	20.7	43	21.3	44.1
Namibia	28.7	69.8	29.9	71.3	31	72.8	32.2	74.4	33.5	75.8	34.7	77.3
Niger	14.8	33.1	15.3	34.1	15.7	35.2	16.1	36.1	16.5	37.2	17.1	38.4
Nigeria	22.3	42.8	23	44	23.9	45.3	24.6	46.6	25.4	47.8	26.3	49.2
Rwanda	14.9	36.7	15.4	37.9	15.9	39.1	16.4	40.3	16.9	41.6	17.5	42.8
Sao Tome and Principe	30.5	52.6	31.5	53.8	32.4	55	33.4	56.2	34.4	57.4	35.4	58.5
Senegal	20.6	43.4	21.2	44.5	21.6	45.5	22.2	46.6	22.9	47.7	23.5	48.8
Seychelles	32.2	59.7	32.9	60.8	33.6	62	34.4	63.2	35.3	64.4	36.1	65.6
Sierra Leone	20	43.5	20.5	44.7	21	45.8	21.6	46.9	22.3	48.1	22.9	49.3
South Africa	48.9	99.5	50.2	100.5	51.6	101.7	53	102.8	54.4	103.9	55.9	105
South Sudan												
Swaziland	24.4	72.2	25	73.5	25.6	74.9	26.2	76.2	26.9	77.5	27.6	78.8
Togo	20.3	42.4	20.9	43.6	21.5	44.7	22.2	45.9	22.8	47	23.5	48.3
Uganda	13.7	34.1	14.1	35.1	14.3	36.2	14.7	37.2	15.1	38.3	15.5	39.5
United Republic of Tanzania	20.1	41.4	20.7	42.8	21.3	44.1	22	45.4	22.7	46.7	23.6	48.2
Zambia	19.6	43	20.2	44.1	20.7	45.3	21.4	46.4	22	47.6	22.6	48.7
Zimbabwe	24.4	73	24.8	74.1	25.3	75	25.9	76.1	26.3	77	26.9	78.1
Africa	**24.9**	**48.9**	**25.5**	**50**	**26.3**	**51**	**27.6**	**53.1**	**26.9**	**52.1**	**28.4**	**54.1**

Data source: WHO, 2011–2016

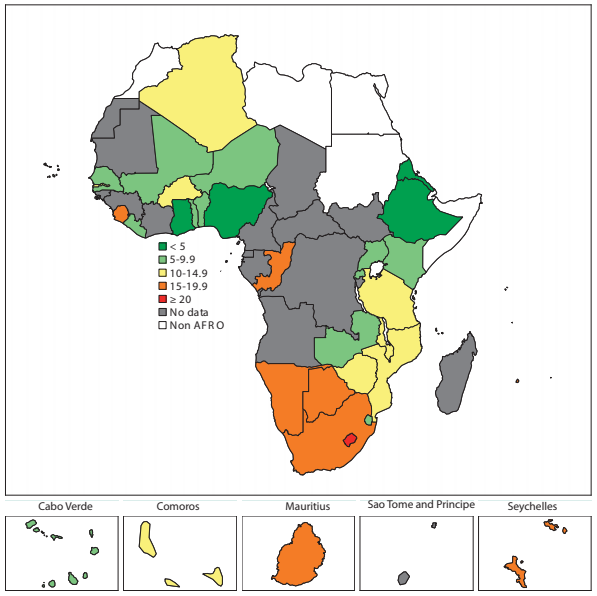
7.6 Tobacco use

Levels of tobacco smoking in the African Region vary from country to country but are very high, especially among males. In 2015 for instance, the percentage of people 15+ years in the Region who said they smoke tobacco ranged from 3.1% to 20.6% with a median of 10.3%. Lesotho had the highest percentage of the population 15+ years that said they smoke tobacco in 2015, followed by Sierra Leone (19.4%), Republic of Congo (17.4%), Namibia (17.2%), and South Africa (17.0%). Ghana had the lowest rates, followed by Ethiopia (3.2), Nigeria (4.6%), and Niger (4.7%).

Differences in tobacco smoking between males and females were considerably high. In 12 countries in the Region for instance (Niger, Eritrea, Ghana, Ethiopia, Lesotho, Senegal, Nigeria, Algeria, Benin, The Gambia, Kenya, and Togo), tobacco is smoked predominantly by males, with rates of tobacco use among females ranging from 0.1% to 0.7% only. In Lesotho, males smoked tobacco up to 129 times more frequently than females. Similarly in Niger, males were 110 times more likely to smoke tobacco than females.

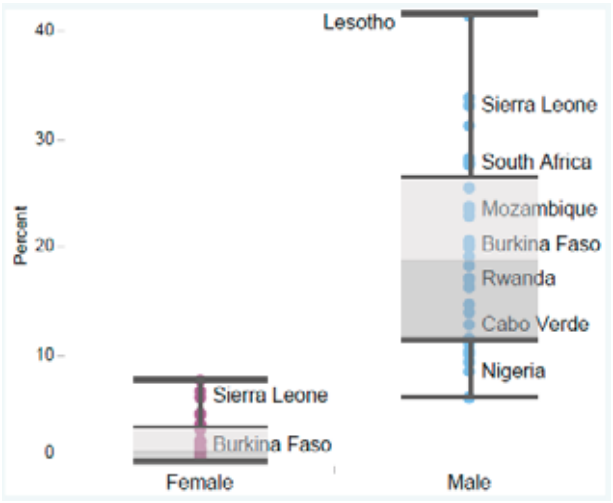
According to the 2014 Global report on tobacco use, 12% of all deaths among adults aged 30 years are attributable to tobacco use[1]. The attributable risk of tobacco use for some diseases is considerably high: up to 71% of all lung cancer deaths and 42% of all chronic obstructive pulmonary diseases are attributed to tobacco use. These statistics should greatly concern all governments in the Region. Special efforts are therefore required to reduce the rates of tobacco use in order to reduce the morbidity and mortality associated with use and exposure to tobacco, including acceleration of implementation of Framework Convention on Tobacco Control. As part of the Framework Convention on Tobacco Control, a few countries such as Swaziland have introduced high taxes on alcohol and tobacco products and promulgated, as an act of parliament, the Tobacco Products Control Act. The STEPS survey done in 2014 in Swaziland which formed the basis for the WHO estimate found that 6% of adults aged 15-69 years in Swaziland use tobacco. It would be interesting to see the impact of such interventions in subsequent analyses; this will require strengthening efforts for data collection on tobacco use as well as on other NCD risk factors.

Figure 134 Percent individuals ≥15 years who used tobacco in the African Region, 2015



Data source: WHO

Figure 135 Percent individuals ≥15 years who used tobacco by sex in the African Region, 2015



Data source: WHO

1 World Health Organization 2012. Mortality attributable to tobacco. Available online at: http://apps.who.int/iris/bitstream/10665/44815/1/9789241564434_eng.pdf accessed on 19th Oct 2017

Table 43 Age-standardized prevalence estimates for daily tobacco smoking among persons aged 15 years and above

	Male	Female	Both sexes
Algeria	23.8	0.5	12.2
Angola	–	–	–
Benin	10.4	0.5	5.4
Botswana	27.8	4.7	16.2
Burkina Faso	20.2	1.6	10.7
Burundi	–	–	–
Cabo Verde	12.9	1.8	7.2
Cameroon	–	–	–
Central African Republic	–	–	–
Chad	–	–	–
Comoros	20.0	3.7	11.9
Congo	33.8	1.1	17.4
Côte d'Ivoire	–	–	–
Democratic Republic of the Congo	–	–	–
Equatorial Guinea	–	–	–
Eritrea	9.4	0.2	4.7
Ethiopia	6.1	0.2	3.2
Gabon	–	–	–
The Gambia	25.5	0.5	12.7
Ghana	6.1	0.2	3.1
Guinea	–	–	–
Guinea-Bissau	–	–	–
Kenya	16.4	0.7	8.5
Lesotho	41.6	0.3	20.6
Liberia	14.7	1.2	7.9
Madagascar	–	–	–
Malawi	19.2	3.0	11.0
Mali	18.3	1.3	9.8
Mauritania	–	–	–
Mauritius	31.2	1.5	16.0
Mozambique	23.5	3.7	13.2
Namibia	27.6	7.7	17.2
Niger	10.2	0.1	5.1
Nigeria	8.6	0.5	4.6
Rwanda	17.0	3.7	9.9
Sao Tome and Principe	–	–	–
Senegal	14.1	0.3	6.9
Seychelles	28.3	4.6	16.6
Sierra Leone	33.1	6.2	19.4
South Africa	27.8	6.7	17.0
South Sudan	–	–	–
Swaziland	11.6	1.3	6.3
Togo	11.2	0.7	5.8
Uganda	11.3	2.1	6.7
United Republic of Tanzania	20.7	2.2	11.3
Zambia	17.2	2.2	9.6
Zimbabwe	22.9	1.2	11.8

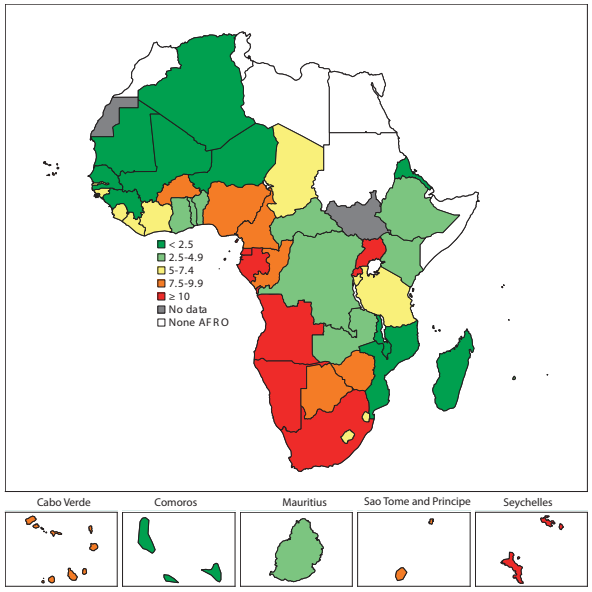
Data source: WHO, 2015

7.7 Alcohol use

It is estimated that, every year, harmful alcohol use results in 3.3 million deaths globally. According to the global status report on alcohols (2014), in 2012, alcohol accounted for up to 5.9% of all deaths and 5.1% of the global burden of diseases and injury[2]. In the African Region, total recorded and unrecorded alcohol per capita consumption among people aged 15+ years ranges from 0.1 litres to 11.8 litres, with a median of 5.3 litres.

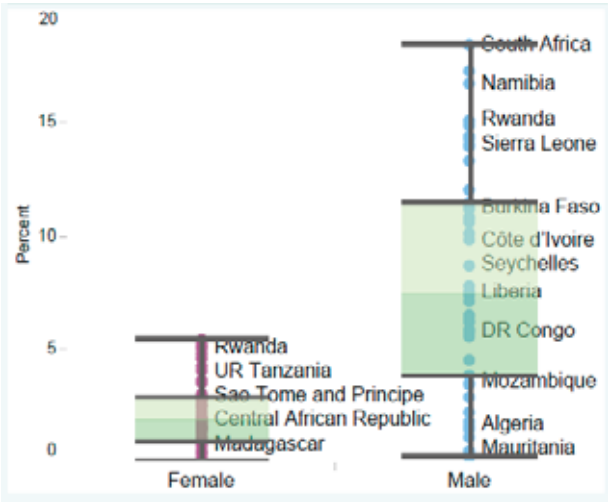
Namibia and Uganda have the highest total alcohol per capita consumption (11.8 litres), followed by Equatorial Guinea (11.6litres), Rwanda (11.5litres), and South Africa (11.2litres). Total alcohol per capita consumption is lowest in Mauritania (0.1 litres), followed by Comoros (0.2litres), Senegal and Niger (0.5 litres), Guinea (0.8), Algeria (1.0 litres), Mali and Eritrea (1.2 litres). Most of these countries with the lowest total per capita alcohol consumption have large population of the Islamic faith.

Figure 136 Per capita alcohol consumption among people ≥15 years in the African Region, 2015



Data source: WHO

Figure 137 Per capita alcohol consumption among people ≥15 years by sex in the African Region, 2015



Data source: WHO, 2016

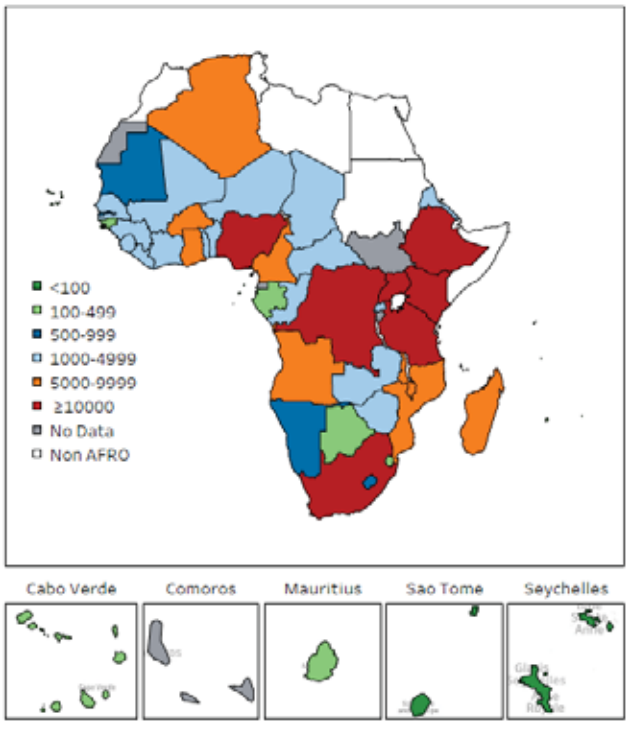
2 World Health Organization 2014. Global status report on alcohol and health. Available online at: http://apps.who.int/iris/bitstream/10665/112736/1/9789240692763_eng.pdf accessed on 19th Oct 2017

7.8 Road traffic injuries

The burden of injuries has been recognised by the global community as an impediment to sustainable development and therefore included in the SDGs. Injuries account for up to 10% of deaths worldwide. According to WHO, approximately 5 million people die each year from injuries and violence, with 90% of the deaths occurring in lower-middle income countries (LMICs)[3]. The 2013 Global Health Estimates show that road traffic accidents accounted for the largest share of deaths from injuries (29.1%), followed by self-harm (17.6%), falls (11.6%), and interpersonal violence (8.5%).

Road traffic accidents are a major public health problem in the African Region. In 2013 for instance, the absolute number of deaths from road traffic accidents was greater than 10,000 in 7 countries: Democratic Republic of Congo, Ethiopia, Kenya, Nigeria, South Africa, Tanzania, and Uganda. Projections show that road traffic injuries will be the 7th leading cause of death in the Region, up from the 9th position in 2012.

Figure 138 Number of road traffic deaths in the African Region

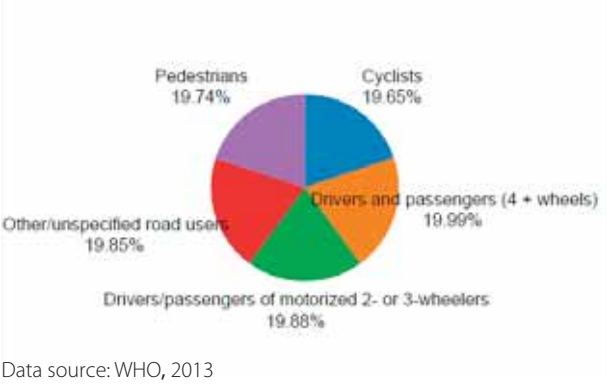


Data source: WHO, 2013

The high number of road traffic accidents in the African Region is a function of the interaction between several factors including poor state of roads, poor state of vehicles, increasing number of vehicles, ill trained or untrained drivers, over speeding, drink-driving, and suboptimal enforcement of traffic laws. In 2013 for instance, most countries in the Region (94%) had policies for road safety but institutional frameworks and legislation on road safety were available in only 57% and 58% of the countries, respectively.

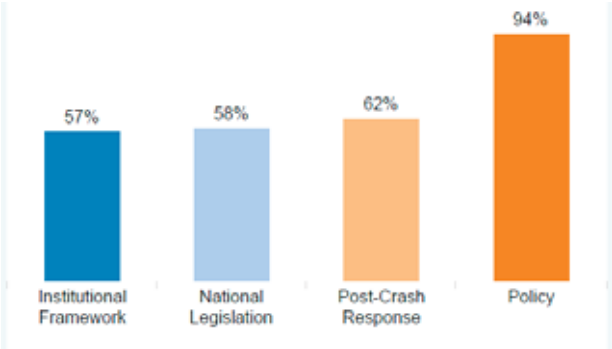
WHO is working with partners - governmental and nongovernmental - around the world to raise the profile of the preventability of road traffic injuries and promote good practice related to addressing key behaviour risk factors – speed, drink-driving, the use of motorcycle helmets, seat-belts and child restraints.

Figure 139 Reported distribution of road traffic deaths by type of user in the African Region



Data source: WHO, 2013

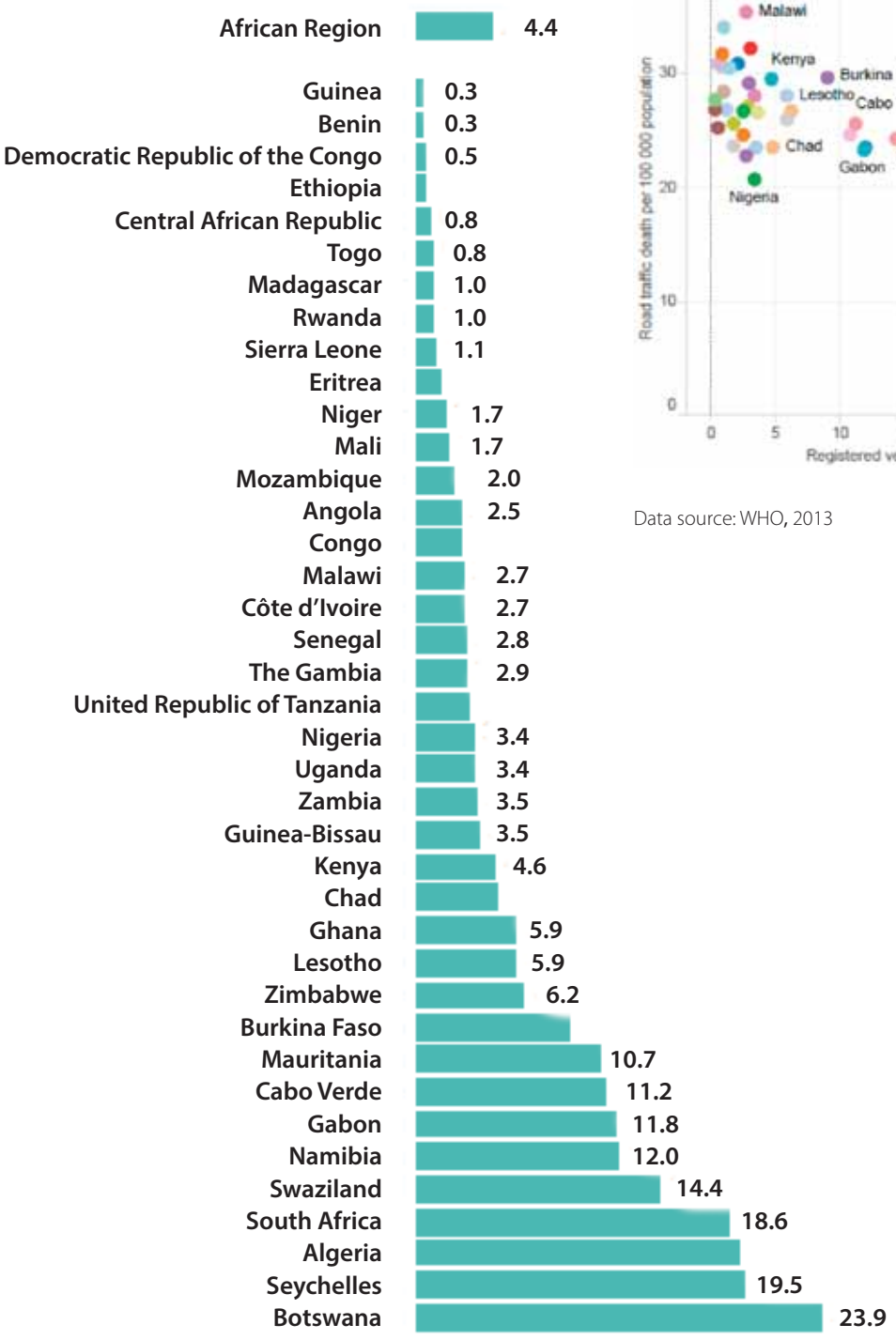
Figure 140 Proportion of countries with guidelines or legislation for road safety in the African Region



Data source: WHO, 2013

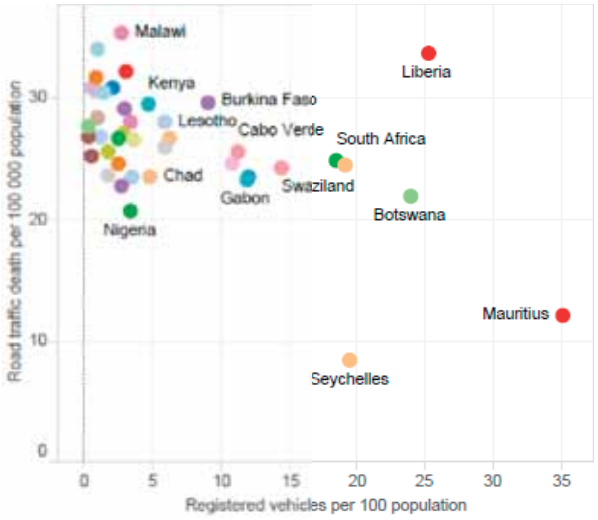
3 World Health Organization, Global Health Estimates Summary Tables: DALYs by cause, age and sex. Geneva: WHO, 2013.

Figure 141 Registered vehicles per 100 000 population in the African Region



Data source: WHO 2014

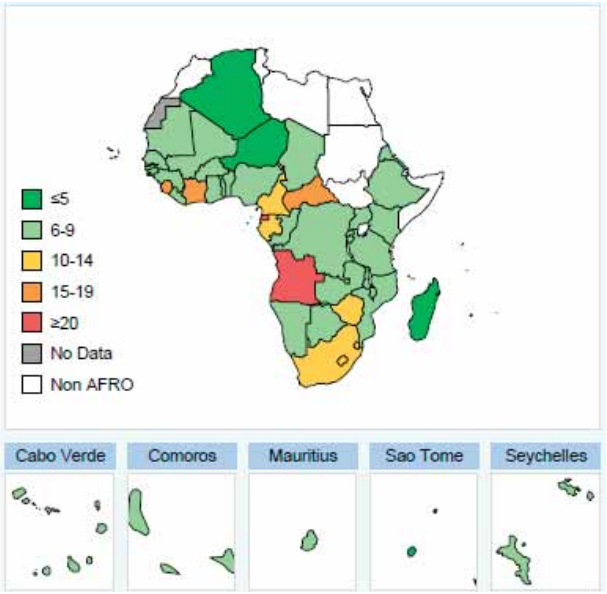
Figure 142 Road traffic death per 100 000 population vs registered vehicles per 100 population in the African Region



Data source: WHO, 2013

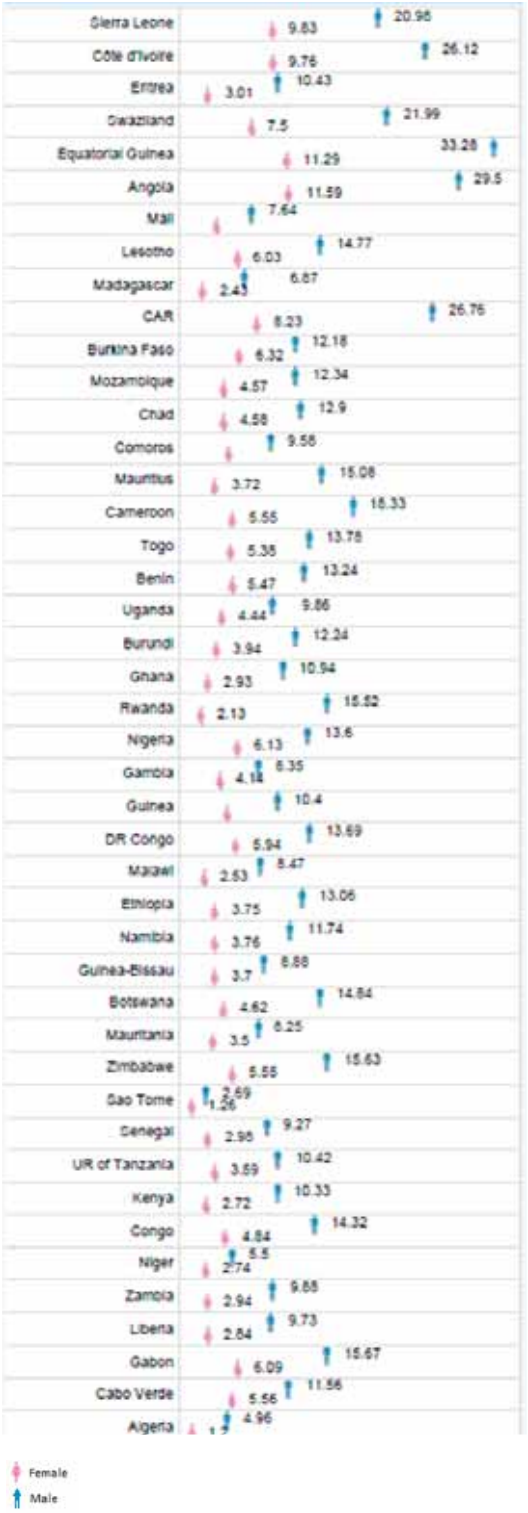
7.9 Mental health

Figure 143 Crude suicide rate per 100 000 population in the African Region



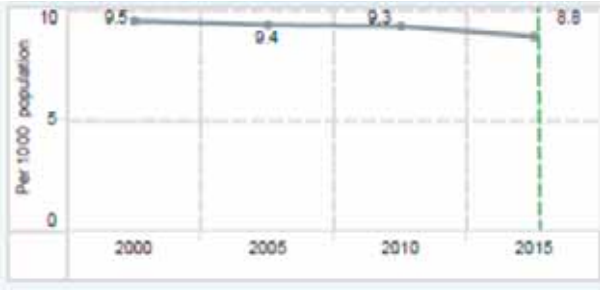
Data source: WHO, 2015

Figure 144 Crude suicide rate per 100 000 population by sex in the African Region



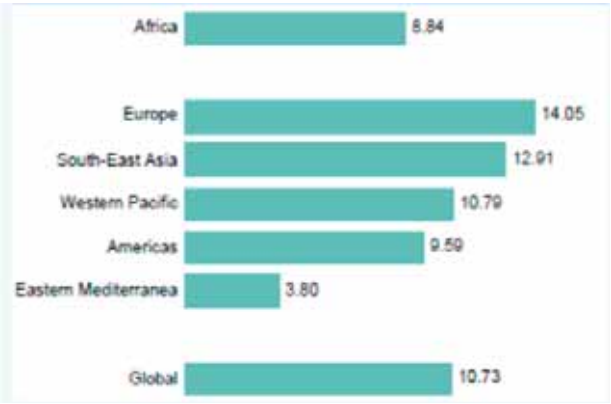
Data source: WHO, 2015

Figure 145 Crude suicide rate per 100 000 population in the African Region



Data source: WHO, 2000– 2015

Figure 146 Crude suicide rate (per 100 000 population) by WHO region



Data source: WHO, 2015

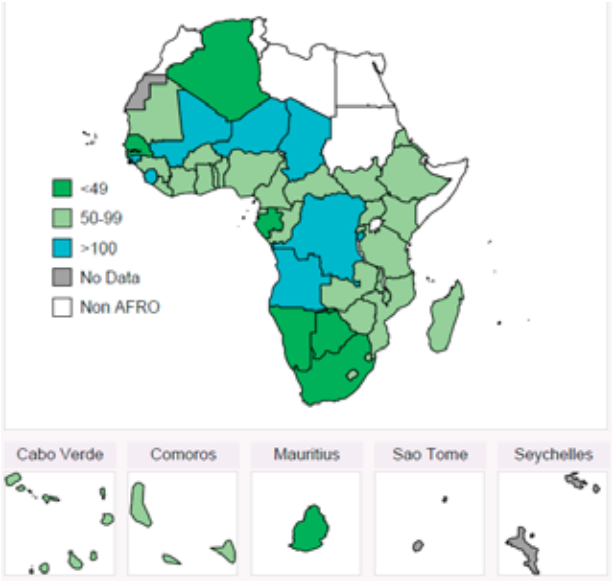
Chapter 8. Health emergencies and interventions

SDG Target 11.6: By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.

SDG Target 13.1: Strengthen resilience and adaptative capacity to climate-related hazards and natural disasters in all countries.

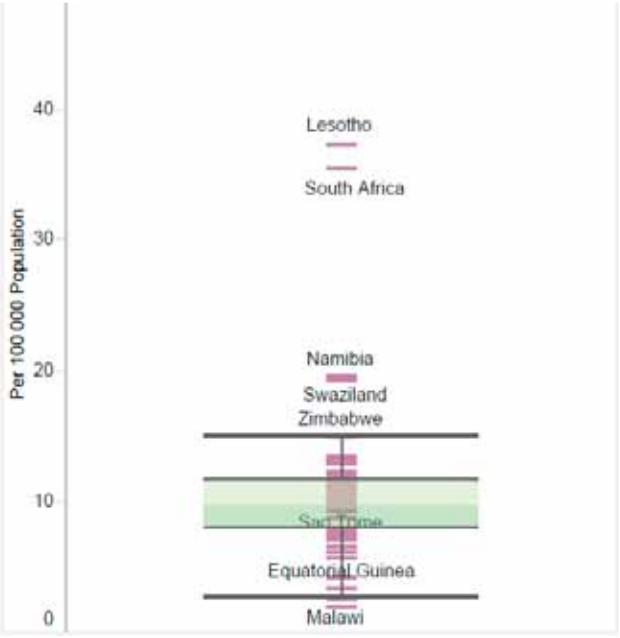
SDG Target 16.1: Significantly reduce all forms of violence and related deaths everywhere.

Figure 147 Mortality rate attributed to household and ambient air pollution per 100 000 population in the African Region



Data source: WHO, 2012

Figure 148 Mortality rate due to homicide per 100 000 population in the African Region



Data source: WHO, 2012

Table 44 Average number of death from natural disasters

Africa	495
Nigeria	91
Mozambique	56
Ghana	55
Madagascar	48
Kenya	46
Niger	40
Democratic Republic of the Congo	39
Malawi	34
Zimbabwe	31
South Africa	27
United Republic of Tanzania	27
Angola	25
Namibia	22
Uganda	20
Côte d'Ivoire	11
Burkina Faso	9
Mali	9
Senegal	8
Chad	7
Rwanda	6
Benin	5
Lesotho	4
Sierra Leone	3
Swaziland	3
Mauritius	3
Congo	2
Botswana	2
Maurinatia	2
The Gambia	1

Data source: WHO, 2013

Table 45 Estimated number of direct deaths from major conflicts

Africa	13 838
Nigeria	5 648
Democratic Republic of the Congo	1 391
Central African Republic	1 254
Congo	1 103
Uganda	742
Mali	651
Algeria	397
Kenya	276
Ethiopia	199
Côte d'Ivoire	114
Rwanda	81
Niger	40
South Africa	27
United Republic of Tanzania	27
Guinea	25
Senegal	15
Chad	14
Mozambique	14
Mauritania	12
Madagascar	12
Burkina Faso	9
Zimbabwe	8
Eritrea	3
Guinea-Bissau	1

Data source: WHO, 2011-2015

Chapter 9. Health systems and services

9.1 Service availability and readiness

The concept of service availability and readiness assessment (SARA) was developed by World Health Organization and other collaborating partners to assess whether a health care facility meets the required conditions to support the provision of basic or specific services. Service availability refers to the physical presence of the delivery of services, and service readiness refers to the capacity or ability of health care facilities to offer services.

Service availability is a measure of health care access, and service readiness is a proxy indicator for health care quality and safety. Distinction is made between general service readiness and service-specific readiness. General service readiness refers to the overall capacity or ability of a health care facility to offer general services – measured through the availability of items of basic amenities, basic equipment, essential medicines, standard precautions for infection prevention and control, and diagnostic capacity. Service-specific readiness meanwhile refers to the ability of health facilities to offer a specific service, and the capacity to offer that service measured through the availability of items such as trained staff, guidelines, equipment, laboratory services and medicines.

The assessment of readiness is based not on all items that can be used to offer a service but on a selection of basic items that are particularly important for offering the service. In SARA surveys, such items are referred to as "tracer items", that is, a limited number of items used to give a general indication of readiness. Assessment of service-specific readiness is done only among facilities that report offering the service.

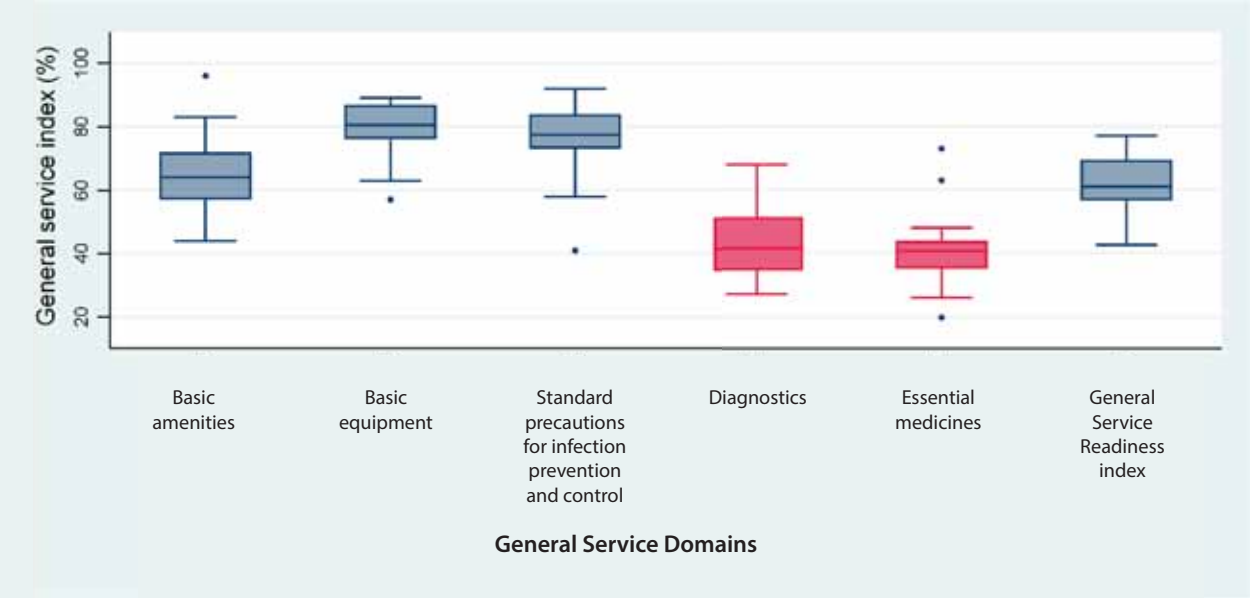
Service availability and readiness is central to efforts for achieving UHC and attaining the SDGs. Consequently, monitoring the availability and readiness of services has recently become one of the key performance indicators for the WHO Regional Office for Africa. This means, countries in the Region are required to conduct facility assessment surveys every one or two years to provide data. The assessment of service availability and readiness in the Atlas uses the most recent SARA data in each country. It covers the period 2013–2017, with data available for 17 of the 47 countries in the Region.

General service readiness

Assessment of general service readiness is based on the availability of 63 items that are considered to be particularly important and that are enquired about during the SARA surveys. The items are grouped into five domains: basic amenities (7 items), basic equipment (6 items), standard precaution for infection prevention and control (9 items), diagnostic capacity (8 items) and essential medicines (33 items).

During the period 2013–2017, the general service readiness index, which is a composite index of the items of general services in the 17 countries, ranged from 43% in Ethiopia to 77% in Kenya. This means that Ethiopia had only 43% of the items that are particularly important for providing general services and that were enquired about during the survey, and Kenya had 77%. The availability of essential medicines and diagnostics was generally low across the 17 countries, with the availability ranging from 26% (in Ethiopia) to 73% (in Kenya) for essential medicines; and from 27% (in the Democratic Republic of the Congo) to 68% (in Zimbabwe) for diagnostics.

Figure 149 General service readiness in the African Region



Data source: SARA surveys, 2013 - 2017

Table 46 Readiness to provide general services in 17 countries in the African Region

	Readiness Domain					
	Basic amenities	Basic equipment	Standard precautions for infection prevention and control	Diagnostics	Essential medicines	General Service Readiness Index
Zimbabwe 2015	81	88	84	68	48	74
Zambia 2015	71	87	89	66	43	71
Ethiopia 2016	44	63	41	39	26	43
Benin 2015	64	86	84	51	41	65
Burkina Faso 2014	72	89	88	61	38	70
Chad 2015	48	82	78	31	44	57
Mauritania 2016	61	83	71	32	35	56
Niger 2015	64	82	75	36	41	60
Sierra Leone 2017	57	77	83	33	31	56
Burundi 2017	71	79	73	52	29	61
Uganda 2013	62	79	83	47	35	61
Kenya 2016	83	76	76		73	77
Tanzania 2016 (SPA 2016)	56	64	71			64
Seychelles 2017	96	88	92	41	63	76
Liberia 2016	77	57	73	42	44	59
DRC 2014		75	58	27	20	45
Togo (2013)	49	87	85	40	39	60
Regional Average	66	78.9	76.7	44.4	40.6	62

Data source: SARA surveys, 2013–2017

Table 47 Items for providing general services in the SARA core questionnaire and enquired about during the surveys

Basic amenities	Basic equipment	Standard precautions for infection prevention and control	Diagnostics	Essential medicines
1. Power	1. Adult scale	1. Safe final disposal of sharps	1. Haemoglobin	1. Amlodipine tablet or alternative calcium channel blocker
2. Improved water source inside OR within the ground of the facility	2. Child scale	2. Safe final disposal of infectious wastes	2. Malaria diagnostic capacity	2. Amoxicillin syrup/suspension or dispersible tablet
3. Room with auditory and visual privacy for patient consultations	3. Thermometer	3. Appropriate storage of sharps waste	3. Blood glucose	3. Amoxicillin tablet
4. Access to adequate sanitation facilities for clients	4. Stethoscope	4. Appropriate storage of infectious waste	4. Urine dipstick-protein	4. Ampicillin powder for injection
5. Communication equipment (phone or SW radio)	5. Blood pressure apparatus	5. Disinfectant	5. Urine dipstick-glucose	5. Aspirin cap/tab
6. Facility has access to computer with email/internet access	6. Light source	6. Single use –standard disposable or auto-disable syringes	6. HIV diagnostic capacity	6. Beclometasone inhaler
7. Emergency transportation		7. Soap and running water or alcohol based hand rub	7. Syphilis rapid test	7. Beta blocker (e.g.bisoprolol, metoprolol, carvedilol, atenolol)
		8. Latex gloves	8. Urine test for pregnancy	8. Carbamazepine tablet
		9. Guidelines for standard precautions		9. Ceftriaxone injection
				10. Diazepam injection
				11. Enalapril tablet or alternative ACE inhibitor e.g. lisinopril, ramipril, perindopril
				12. Fluoxetine tablet
				13. Gentamicin injection
				14. Glibenclamide tablet
				15. Haloperidol tablet
				16. Insulin regular injection
				17. Magnesium sulphate injectable
				18. Metformin tablet
				19. Omeprazole tablet or alternative such as pantoprazole, rabeprazole
				20. Oral rehydration solution
				21. Oxytocin injection
				22. Salbutamol inhaler
				23. Simvastatin tablet or other statin e.g. atorvastatin, pravastatin, fluvastatin
				24. Thiazide (e.g. hydrochlorothiazide)
				25. Zinc sulphate tablets, dispersible tablets or syrup

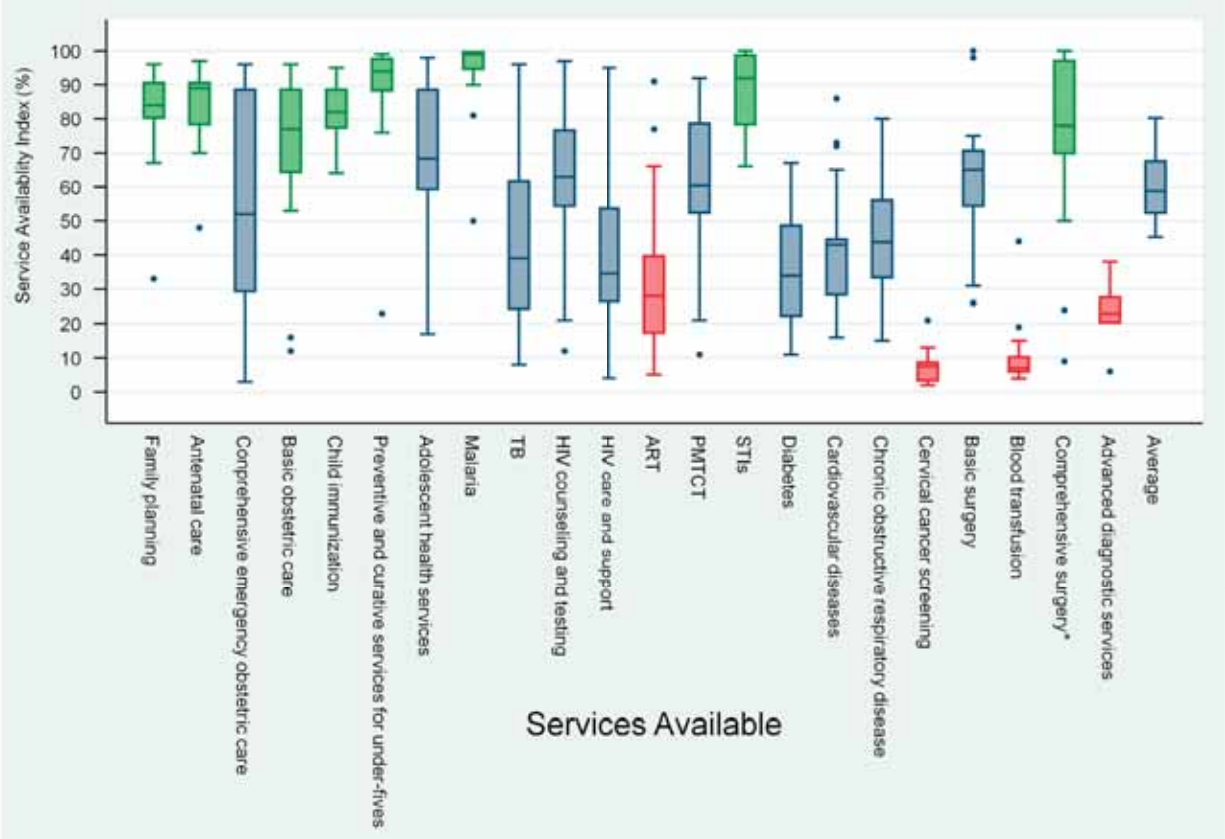
Data source: WHO SARA reference manual

Service availability

Assessment of availability of services in SARA surveys is based on the physical presence of 23 services. Services for cervical cancer screening, blood transfusion, advanced diagnostics, and antiretroviral treatment for HIV (ART) were quite scarce in the 17 countries surveyed – implying that access to these services is highly limited. However, in most of the countries in the Region, these services were offered in higher-level facilities such as hospitals and specialised units. The low rates for these services may therefore be due to inclusion of lower level facilities in the denominator.

The availability of some services (family planning, antenatal care, basic obstetric care, child immunization, preventive and curative care, malaria, services for sexually transmitted infections and comprehensive surgery) was high in most of the countries. For instance, the availability of malaria services was universal in all countries except Kenya (with only 50% of facilities reporting offering malaria services) and Ethiopia (with 81% of facilities reporting the availability of malaria services). The low availability of malaria services in Kenya is possibly because some regions of the country are low malaria endemic zones i.e. malaria in Kenya is a major public health problem only in the endemic areas around Lake Victoria and in the coastal counties.

Figure 150 Percent of facilities that reported offering services (n=17 countries) in the African Region



Data source: SARA surveys, 2013–2017

Table 48 Percent of facilities that reported offering services, by service type (n=17 countries)

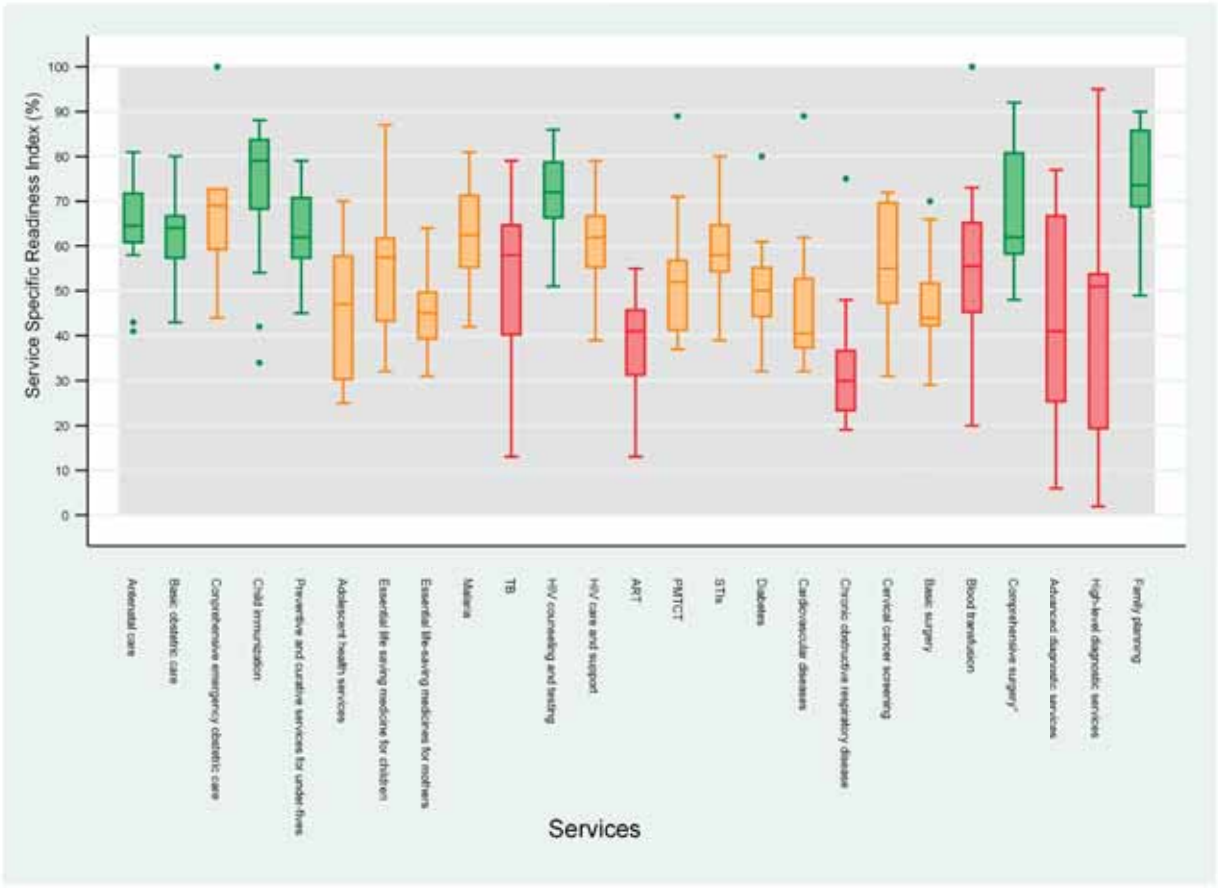
	Zimbabwe 2015	Zambia 2015	Ethiopia 2016	Benin 2015	Burkina Faso 2014	Chad 2015	Mauritania 2016	Niger 2015	Sierra Leone 2017	Burundi 2017	Uganda 2013	Kenya 2016	Tanzania 2016 (SPA)	Seychelles 2017	Liberia 2016	DRC 2014	Togo 2013	**Regional average**
Family planning	90	87	94	83	91	80	67	96	96	74	92	84	80	76	88	33	84	**82**
Antenatal care	91	90	80	91	90	96	72	93	97	71	70	89	85	48	90	78	93	**84**
Basic obstetric care	89	69	55	90	88	92	69	89	96	78	53		76	16	89	12	91	**72**
CEmOC	17	95	3	96	89	6	89	43		53		29			57	47		**52**
Child immunization	93	89	80	78	86	91	65	92	95	64	77	85	81	68	82	75	89	**82**
Preventive & curative services	97	95	91	98	97	97	78	98	98	92	93	23	98	76	94	88	99	**89**
Adolescent health services	89	62	60	90	98	96	32	76	89	34	59	23		60	88	17	90	**66**
Malaria	96	100	81	100	100	100	90	100	100	98	100	50	99		97	99	100	**94**
TB	94	62	63	8	92	96	24	39	14	32	42	50	12	48	21	30	37	**45**
HIV counselling and testing	93	97	54	54	94	56	12	63	62	75	77		81		52	21	47	**63**
HIV care and support	95	75	29	26	88	35	4	21	33	38	54		64	32	16	9	34	**41**
ART	91	66	17	38	77	18	5	15	40	43	35		28	16	12		25	**35**
PMTCT	92	89	45	79	88	58	11	75	61	57	52	80	52	32	61	21	56	**59**
STIs	95	100	77	86	99	100	66	99	93	77	94	88	99	80	94	78	92	**89**
Diabetes	67	58	22	23	46	51	27	29	11	49	34		52		22	14	35	**36**
Cardiovascular diseases	73	72	41	25	86	28	33	42	20	45	44		65		43	16	45	**45**
Chronic obstructive respiratory disease	73	73	45	20	80	52	34	43	15	39	48		61		32		36	**47**
Cervical cancer screening	13	9	2	9	21		8	3	3	3					4			**8**
Basic surgery	55	73	52	65	98	100	65	71	59	75	54			68	36	71	31	**65**
Blood transfusion	19	11	4	7	5	7	5	8	4	6	7	44				15	8	**11**
Comprehensive surgery	75	24	97	69	72	100	100	90	87	9	100			50	81	98	70	**75**
Service availability index	**76**	**71**	**52**	**59**	**80**	**68**	**46**	**61**	**59**	**53**	**62**	**59**	**69**	**52**	**58**	**46**	**61**	**59**

Data source: SARA surveys, 2013–2017

Service specific readiness

In most of the 17 countries, the availability of items for offering services was low for TB, ART, chronic obstructive respiratory disease, advanced diagnostic services and high-level diagnostic services. Readiness was generally high for antenatal care, basic obstetric care, child immunization, preventive and curative services, HCT, comprehensive surgery and family planning.

Figure 151 Service specific readiness index (%)



Data source: SARA surveys, 2013–2017

Table 49 The mean availability of items for offering the specific services by country

	Zimbabwe 2015	Zambia 2015	Ethiopia 2016	Benin 2015	Burkina Faso 2014	Chad 2015	Mauritania 2016	Niger 2015	Sierra Leone 2017	Burundi 2017	Uganda 2013	Kenya 2016	Tanzania 2016 (SPA)	Seychelles 2017	Liberia 2016	DRC 2014	Togo 2013	**Average**
Family planning	86	73	64	73	90	83	66	89	76	86	74	84	49	90	73	64	71	**76**
Antenatal care	77	75	41	74	70	61	58	66	66	62	63	89	81	67	62	43	60	**66**
Basic obstetric care	80	67	68	63	66	57	63	68		63	66	71	43		65	45	52	**62**
CEmOC	72	59	64	73	73	60	73	72	44			85		100	57	45	69	**68**
Child immunization	82	77	54	80	84	87	84	88	68	79	80	85		78	34	42	79	**74**
Preventive and curative services for under-fives	79	73	49	62	71	56	58	68	74	57	58	89	55	63	57	45	64	**63**
Adolescent health services	66	58	25	40	61	40	29	48	70	57	47	23		48	34	25	30	**44**
Life-saving medicine (children)	60	43		60	62	87	33		55		47	72		32				**55**
Life-saving medicines (mothers)	42			50	39	57	36		45		31	59		47				**45**
Malaria	75	72	42	69	75	71	46	68	81	61	61	54	56		60	54	64	**63**
TB	79	62	56	62	68	13	46	58	63	65	65	46	68	23	34	40	38	**52**
HIV counseling and testing	68	86	51	72	67	73	57	78	82	74	71	80		58	66	79	80	**71**
HIV care and support	79	72	57	67	62	59	62	67	63	63	57			48	55	39	55	**60**
ART	45	55	46	43	24	31	34	37	31	26	46	80	41	46	13		49	**40**
PMTCT	89	71	41	46	52	41	37	49	53	53	64	80		54	37	52	57	**55**
STIs	71	66	54	60	80	58	39	65	46	57	58	88		61	55	43	61	**60**
Diabetes	61	58	53	52	46	32	42	42	46	42	60		52	80	49	48	51	**51**
Cardiovascular diseases	61	52	41	46	37	38	38	36	37	32	54	64	62	89	43	40	37	**47**
Chronic obstructive respiratory disease	48	43	27	28	30	19	23	21	34	26	32	64	30	75	37		19	**35**
Cervical cancer screening	72	62	72	70	52		48	55	38	47				65	31			**56**
Basic surgery	66	49	41	46	44	47	52	43	41	43	53	33		70	44	42	29	**46**
Blood transfusion	47	61	56	68	64	55	43	45	61	54	67	71		100	43	45	73	**60**
Comprehensive surgery	51	85	72	81	79	84	62	59	62	92	58	22		51	61	48	69	**65**
Advanced diagnostic services	28	67		52	67	77	41	22	25		71	22		25		6		**42**
High-level diagnostic services	19	51		2	60	95	54		19		52	10		38				**40**
Average	**64**	**64**	**51**	**58**	**61**	**58**	**49**	**57**	**53**	**57**	**58**	**62**	**54**	**61**	**48**	**44**	**55**	**56**

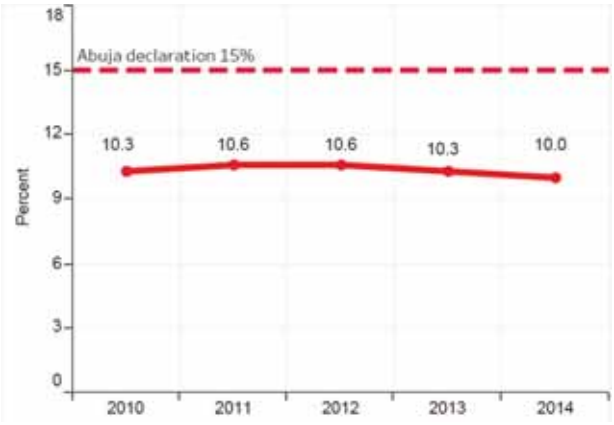
Data source: SARA surveys, 2013–2017

9.2 Health financing

Financing of health in the African region remains suboptimal and reducing. The government budget for health as a share of total government budget in 2014 was about 10% on average which is way below the Abuja target of allocating 15% of the government budget to the health sector. The trend in recent years (2012-2014) suggests that the percentage of government budget allocated to the health sector is steadily reducing in the region. In 2014, the Abuja target was met by only four countries: Gambia, Ethiopia, Swaziland and Malawi. The per capita government expenditure on health in the region in 2014 was 51.6 US Dollars at the average rate which is a very tiny fraction of the per capita expenditure on health in America (USD 1,858.3) and Europe (USD 1,828.1).

The financing system in almost all the African countries is pluralistic, with funds from different sources and mechanisms. During 2010 – 2014; the total health expenditure, which is the sum of health expenditure from all sources in a given year, remained stagnant at around 5% of the gross domestic product. Of this, about 30% were from out-of-pocket payments, 10% from external resources such as donor funding, and just under 50% were general government health expenditure. This means that private inflows account for slightly over 50% of the total health expenditure in the Region. During 2010 – 2014; rates of funds from external resources such as the donors have remained stagnant around 10%.

Figure 152 General government health expenditure as a percentage of general government expenditure in the African Region, 2010–2014



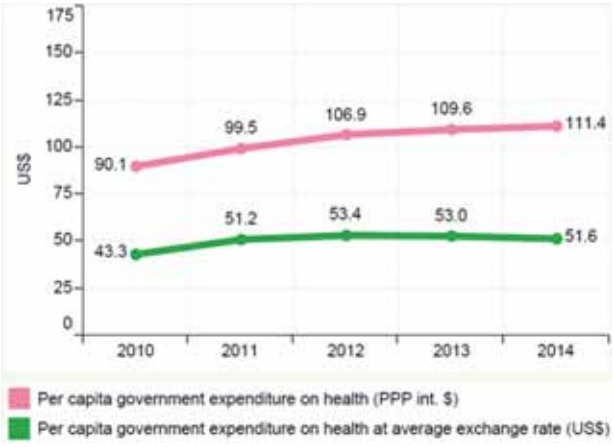
Data source: WHO, 2017

Table 50 List of countries that met the Abuja target, 2014

The Gambia	15.31
Ethiopia	15.75
Swaziland	16.58
Malawi	16.77

Data source: WHO, 2017

Figure 153 Per capita government expenditure on health in the African Region, 2010–2014



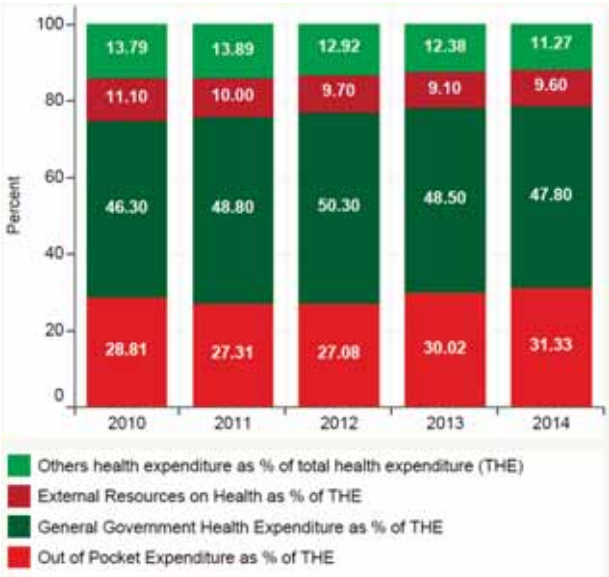
Data source: WHO, 2017

Table 51 Bottom 10 countries with low per capita government expenditure on health at average exchange rate, 2014

Madagascar	6.62
Democratic Republic of the Congo	7.04
Guinea-Bissau	7.63
Central African Republic	7.63
Niger	10.00
Burundi	11.37
Eritrea	11.53
South Sudan	12.48
Liberia	14.57
Guinea	14.77

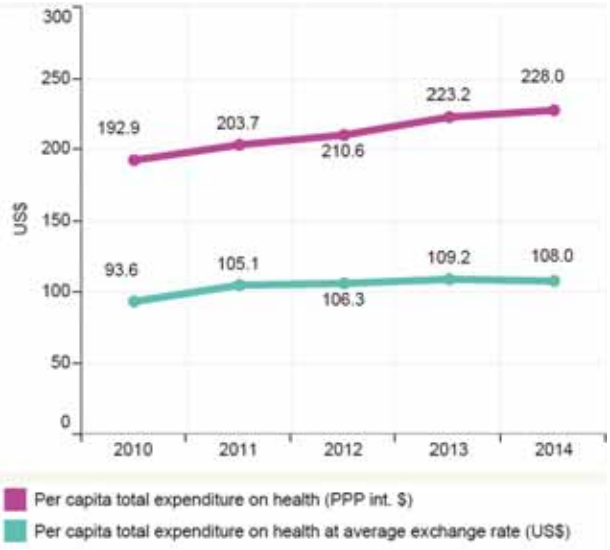
Data source: WHO, 2017

Figure 154 Health expenditure as a percentage of total health expenditure in the African Region, 2010–2014



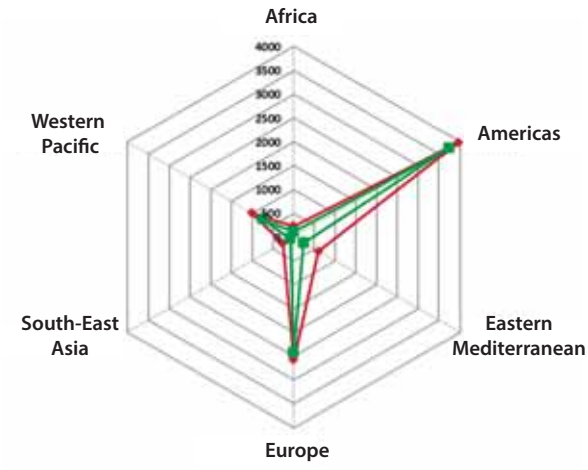
Data source: WHO, 2017

Figure 155 Per capita total expenditure on health in the African Region, 2010–2014



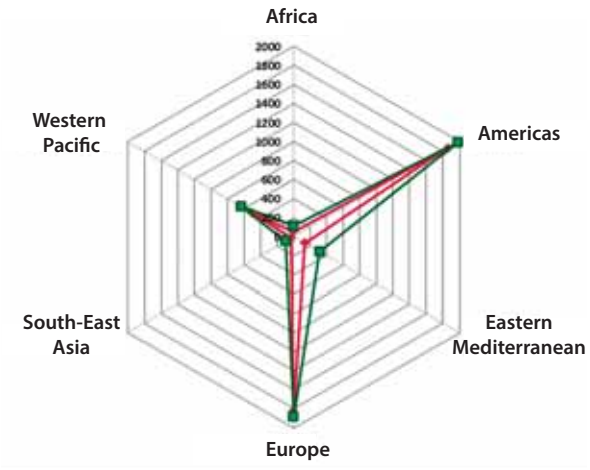
Data source: WHO 2014

Figure 156 Per capita total expenditure on health by WHO region, 2014



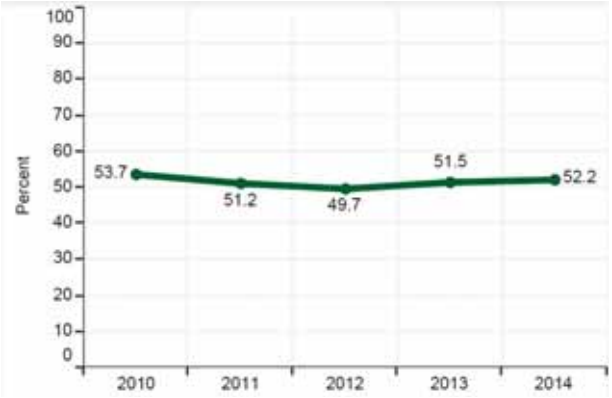
Data source: WHO, 2017

Figure 157 Per capita government expenditure on health by WHO region, 2014



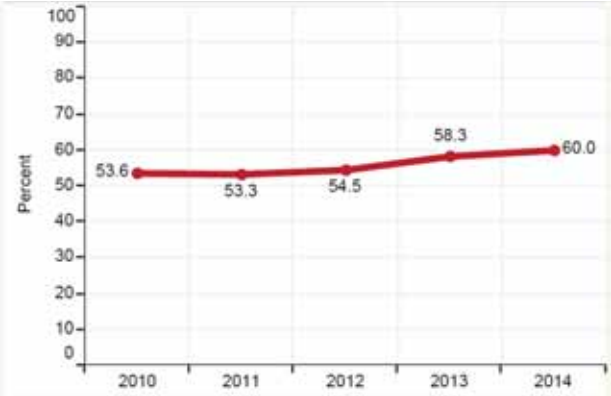
Data source: WHO, 2017

Figure 158 Private Health Expenditure as % of Total Health Expenditure in the African Region



Data source: WHO, 2017

Figure 159 Out of Pocket Expenditure as % of Private Health Expenditure in the African Region, 2010–2014



Data source: WHO, 2017

Table 52 Top 10 countries with high Private Health Expenditure as % of Total Health Expenditure, 2014

Sierra Leone	79.37
Democratic Republic of the Congo	78.26
Guinea-Bissau	77.33
Cameroon	76.60
Uganda	73.66
Liberia	73.09
Côte d'Ivoire	72.84
Nigeria	71.47
Niger	67.97
Guinea	67.91

Data source: WHO, 2017

Table 53 Top 10 countries with high Out of Pocket Expenditure as % of Private Health Expenditure, 2014

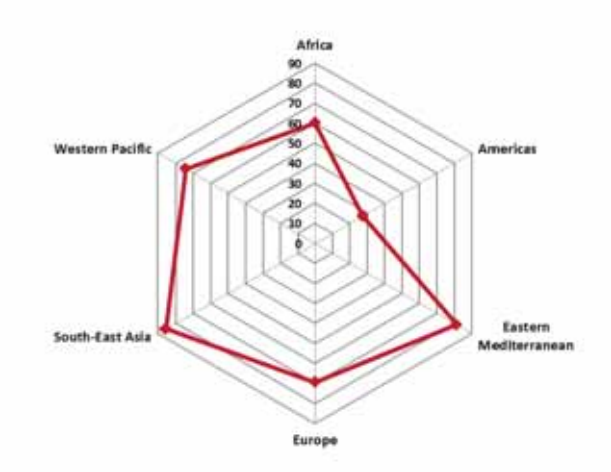
Eritrea	100.00
Congo	97.82
Algeria	96.45
Mali	95.19
Nigeria	94.84
Cabo Verde	93.05
South Sudan	92.80
Mauritania	92.73
Benin	92.46
Cameroon	92.21

Data source: WHO, 2017

Figure 160 Private Health Expenditure as % of Total Health Expenditure by WHO region, 2014

Data source: WHO, 2017

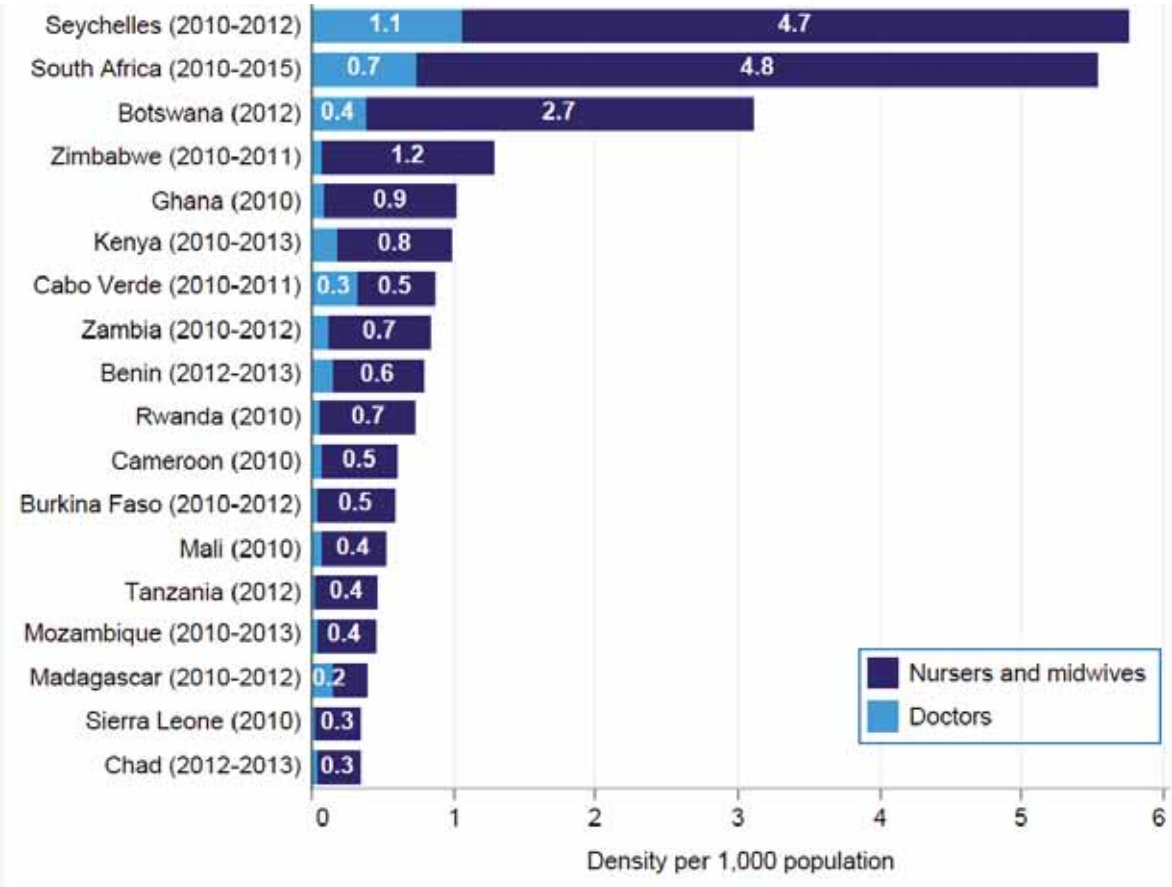
Figure 161 Out of Pocket Expenditure as % of Private Health Expenditure by WHO region, 2014



Data source: WHO, 2017

9.3 Health workforce

Figure 162 Core health worker density per 1,000 population*

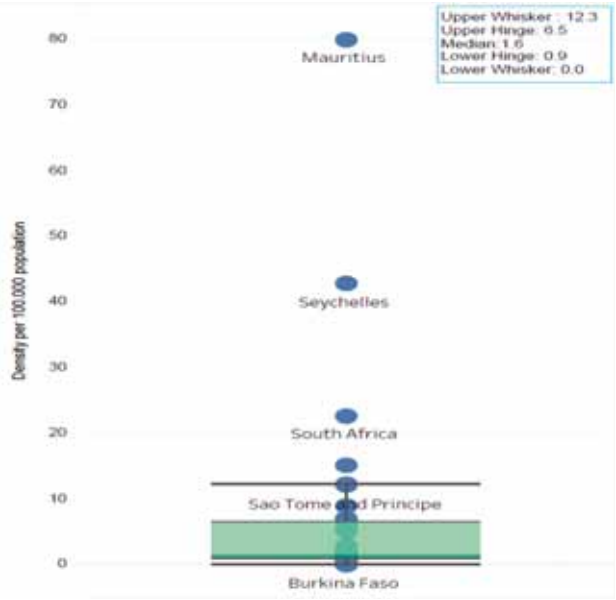


* The core health workforce consists of physicians, nursing and midwifery personel

Date source: WHO, 2017

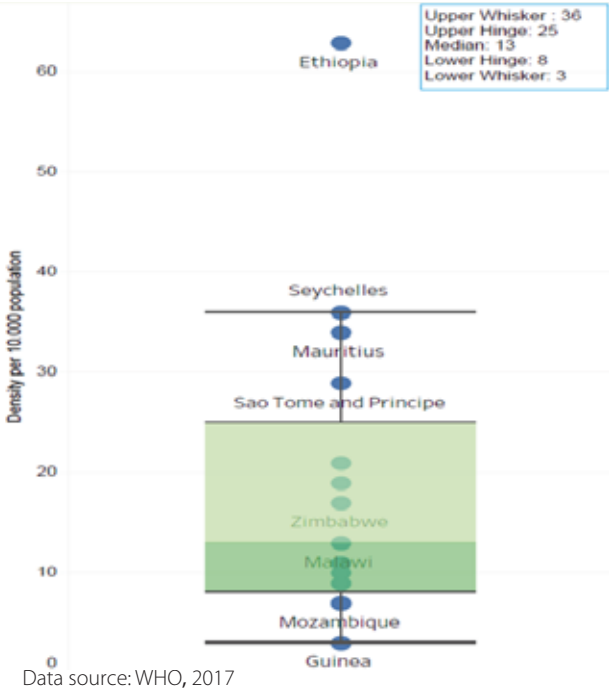
9.4 Medical products and infrastructures

Figure 164 Beds in mental hospitals per 100 000 population in the African Region, 2014



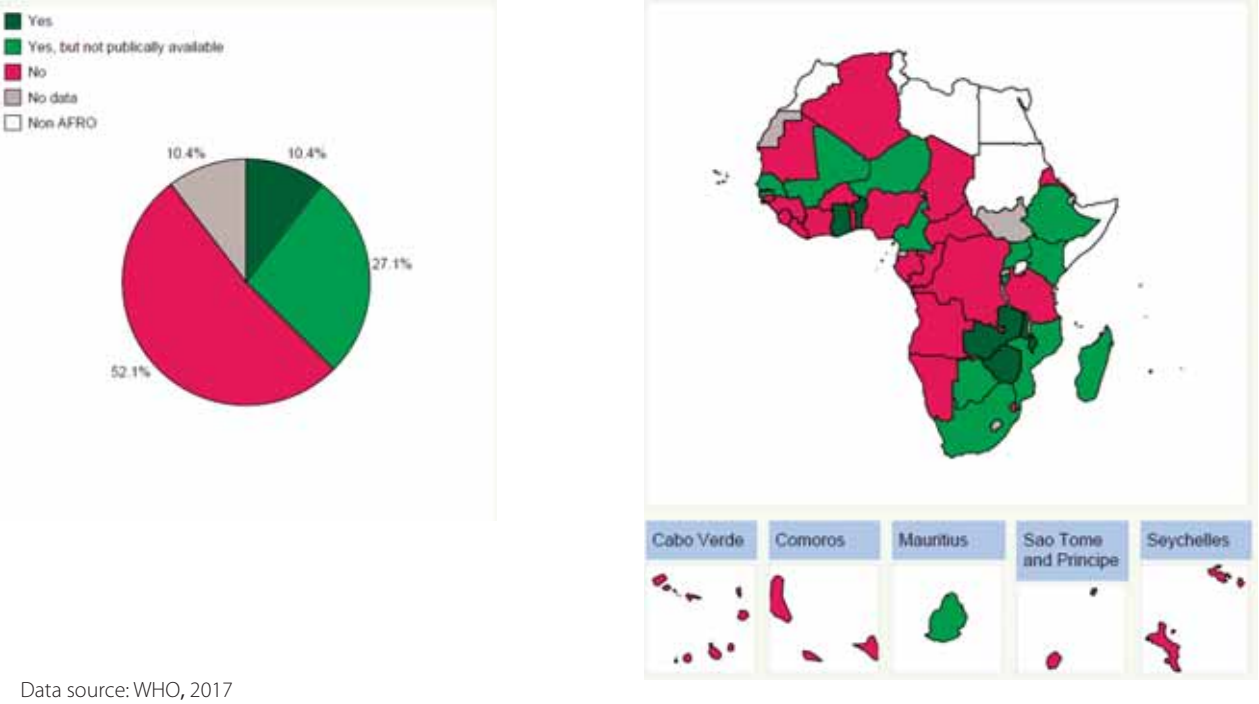
Data source: WHO, 2017

Figure 163 Hospital beds per 10 000 population in the African Region, 2014



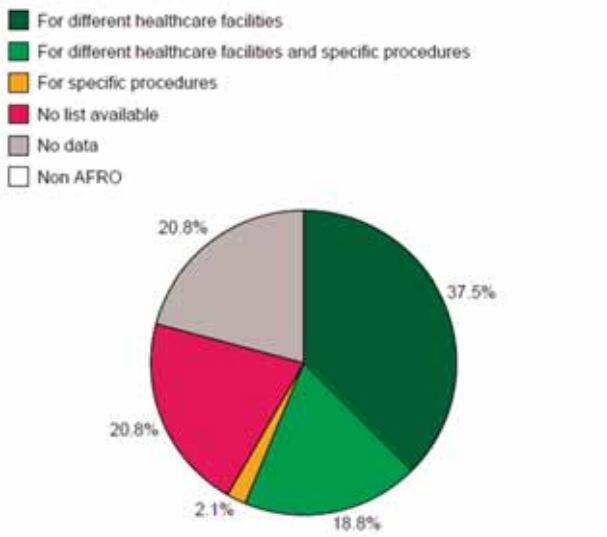
Data source: WHO, 2017

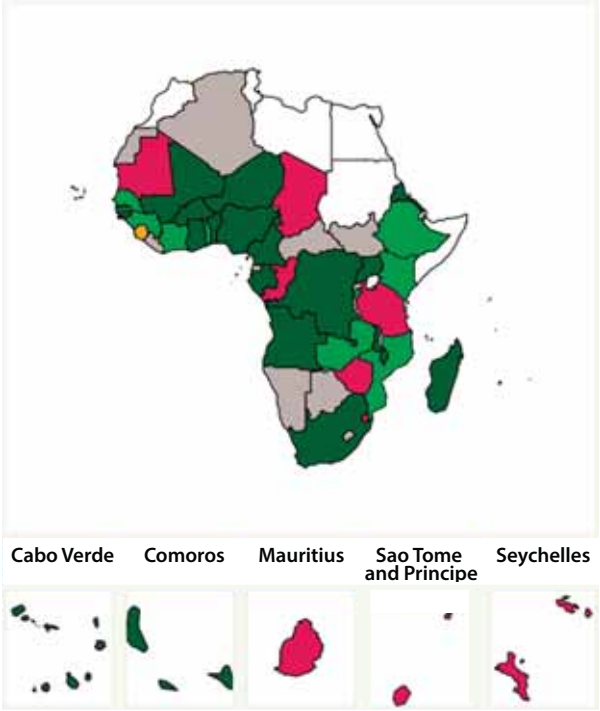
Figure 165 Availability of technical specifications of medical devices to support procurement or donations in the African Region, 2013



Data source: WHO, 2017

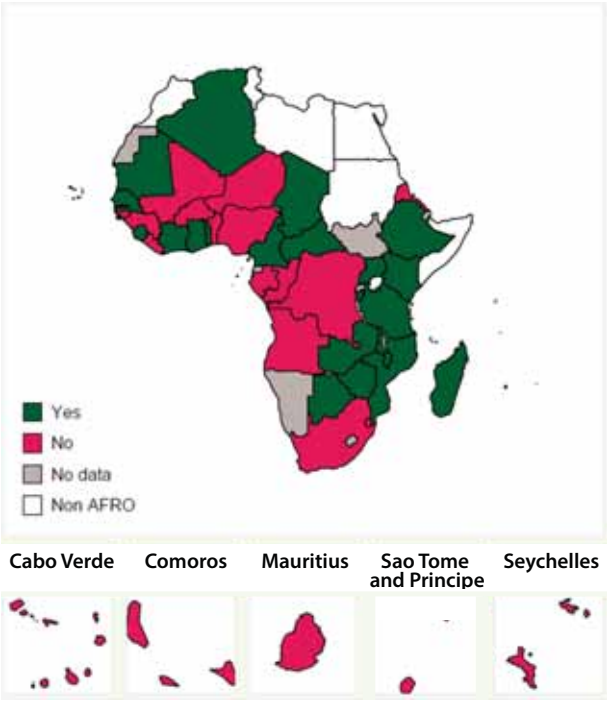
Figure 166 Availability of national standards for or recommended lists of medical devices in the African Region, 2013





Data source: WHO, 2017

Figure 167 National guidelines, policies or recommendations on the procurement of medical devices, 2013



Data source: WHO, 2013

Table 54 Median availability and consumer price ratio of selected generic medicines in the African Region, 2007–2013

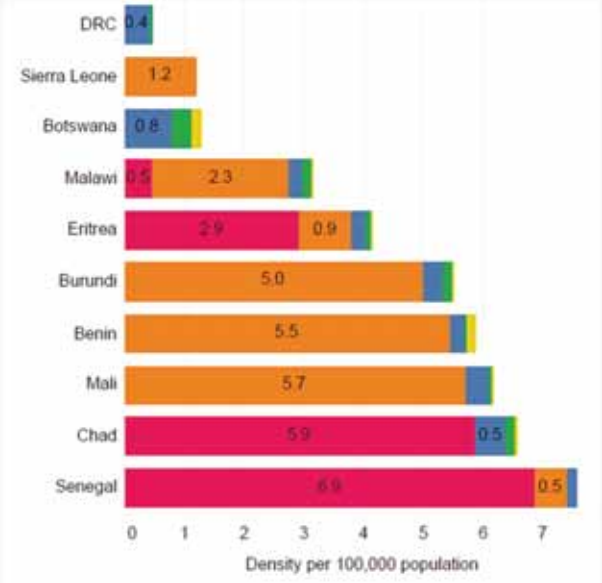
	Median availability of selected generic medicines (%)*		Median consumer price ratio of selected generic medicines**	
	Private	Public	Private	Public
Burkina Faso	72.10	87.10	2.90	2.20
Burundi	58.30	46.70	2.80	1.70
Congo	31.30	21.20	11.50	6.50
DRC	65.40	55.60	2.30	2.00
Malawi	55.60	63.30	3.90	
Mauritius	70.00	88.80	5.90	
Niger	65.80	35.00	3.90	2.90
Rwanda	80.00	46.30	3.60	1.70
Sao Tome and Principe	22.20	56.30	13.80	2.40
Tanzania	50.00	37.80		
Uganda	78.00	70.00		
Zambia	81.30	74.00	4.70	

* Median percentage availability of selected generic medicines in a sample of health facilities in the African Region, countries with data

** Median consumer price ratio of selected generic medicines (ratio of median local unit price to management sciences for health international reference price), countries with data

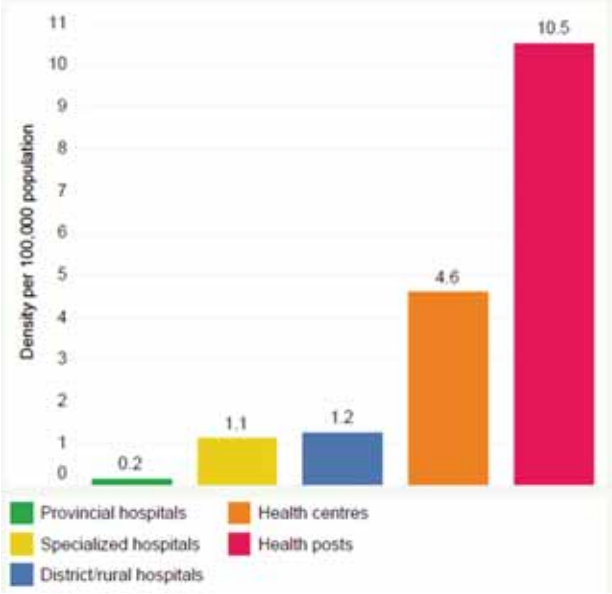
Source: WHO, 2017

Figure 168 Bottom 10 countries with low health facilities density per 100 000 population, 2013



Data source: WHO, 2017

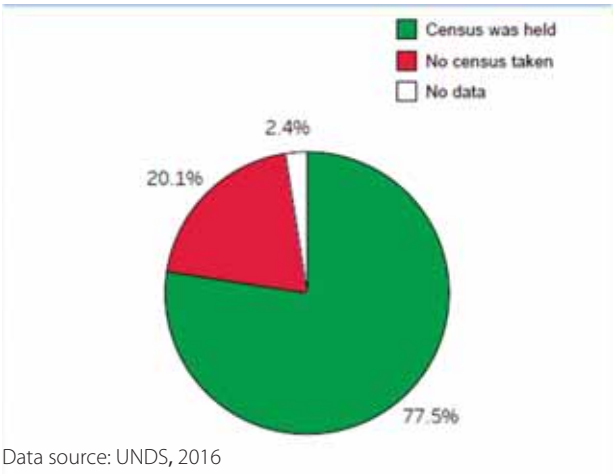
Figure 169 Health facilities density per 100 000 population in the African Region, 2013



Data source: WHO, 2017

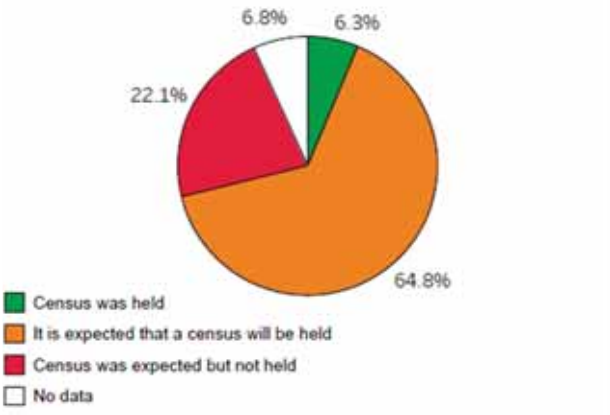
9.5 Health information, evidence and knowledge

Figure 170 : Census carried out in the 2010 round of censuses (2005-2014) in the African Region, 2005–2014



Data source: UNDS, 2016

Figure 172 Census carried out in the 2020 round of censuses (2015-2024) in the African Region, 2015–2024



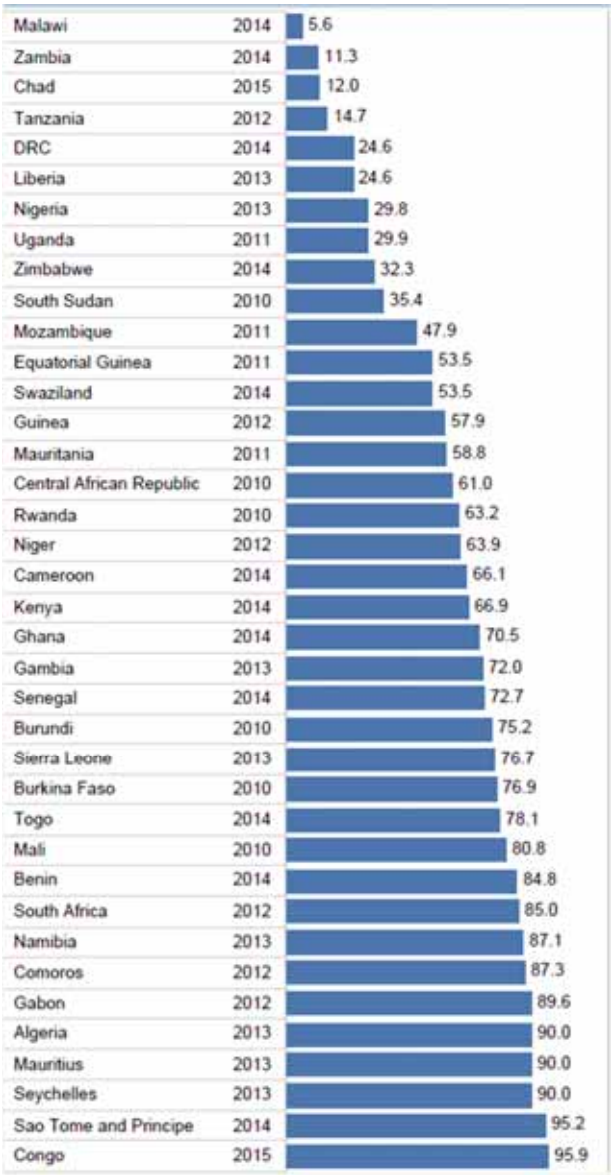
Data source: UNDS, 2016

Table 55 List of countries that census was expected but not held, and those which census was held out in the 2020 round of censuses, 2015–2024

Burkina Faso	2016	Census was expected but not held
Cameroon	2016	Census was expected but not held
Comoros	2016	Census was expected but not held
Congo	2017	Census was expected but not held
DR Congo	2016	Census was expected but not held
Ethiopia	2017	Census was expected but not held
Mozambique	2017	Census was expected but not held
Nigeria	2017	Census was expected but not held
South Sudan	2017	Census was expected but not held
Swaziland	2017	Census was expected but not held
Equatorial Guinea	2015	Census was held
Lesotho	2016	Census was held
Sierra Leone	2015	Census was held

Data source: UNSD, 2016

Figure 171 Percentage of civil registration coverage for births in the African Region, 2010–2015



Data source: WHO, 2017

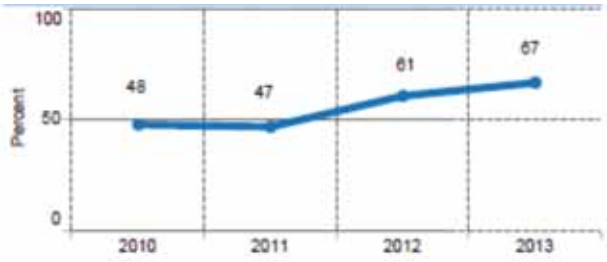
Table 56 Percentage of civil registration coverage for deaths in the African Region, 2008–2012

South Africa	2008–2010	87.10
Mauritius	2011–2013	100
Seychelles	2010–2012	100

Data source: WHO, 2017

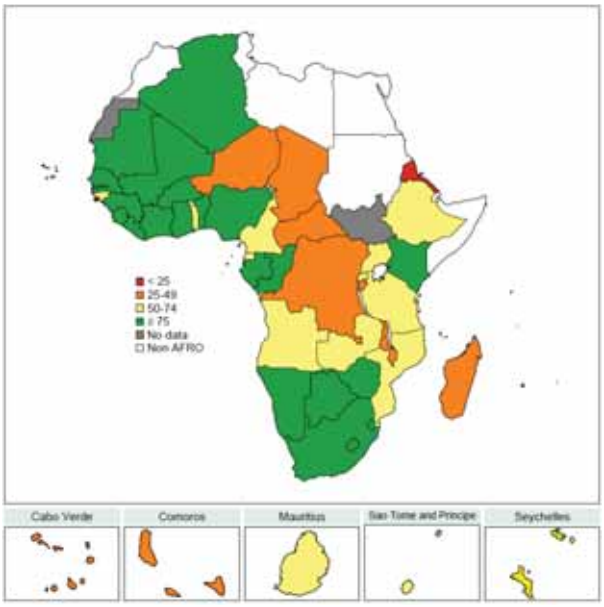
9.6 eHealth

Figure 173 Cellular or mobile subscribers (%) in the African Region



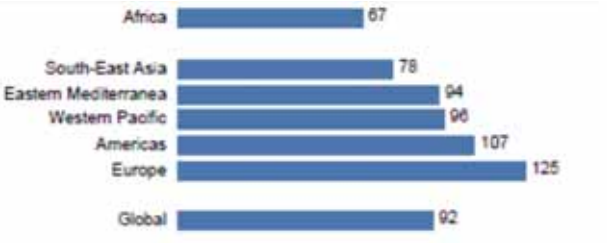
Data source: WHO, 2000–2013

Figure 174 Cellular or mobile subscribers (%) in the African Region



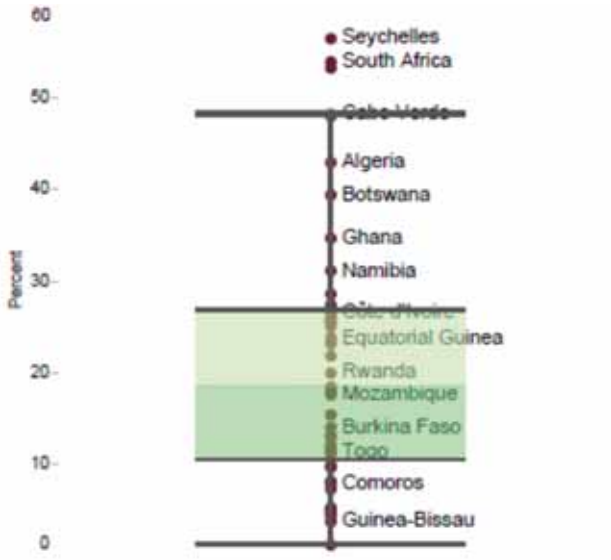
Data source: ITU, 2016

Figure 175 Cellular or mobile subscribers (%) by WHO region



Data source: WHO, 2013

Figure 176 Individuals using the Internet in the African Region

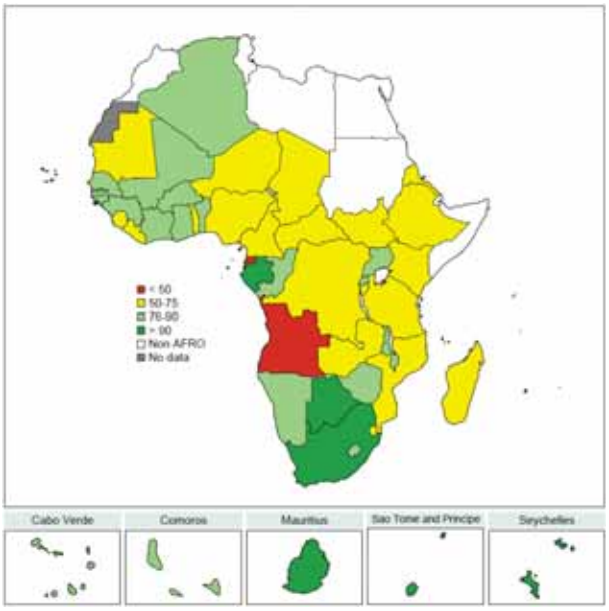


Data source: ITU, 2016

Chapter 10. Social determinants of health

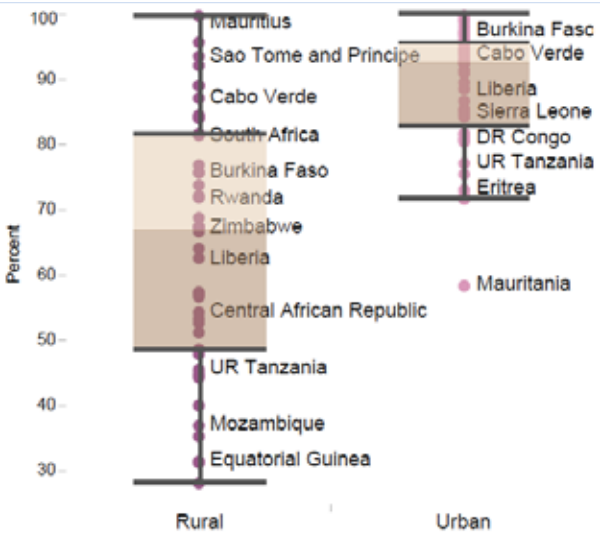
10.1 Water and sanitation

Figure 177 Population using improved drinking water source (%) in the African Region



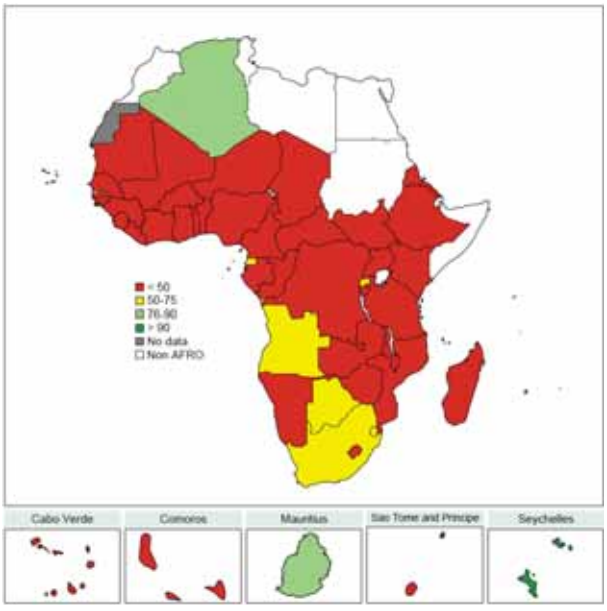
Data source: WHO, 2015

Figure 178 Population using improved drinking water source by residence in the African Region



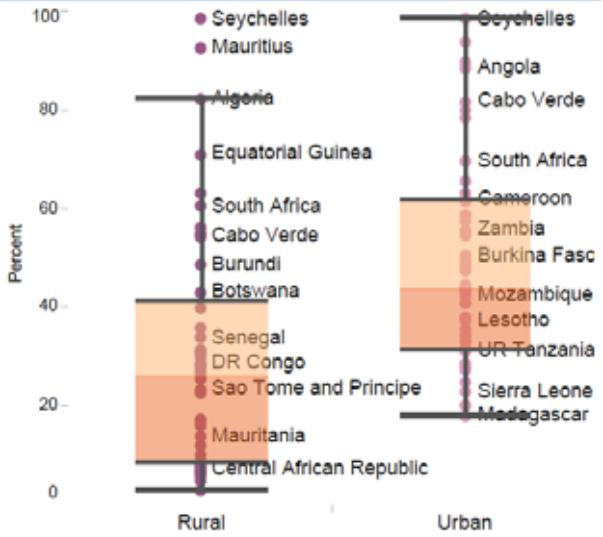
Data source: WHO, 2015

Figure 179 Population using improved sanitation (%) in the African Region



Data source: WHO, 2015

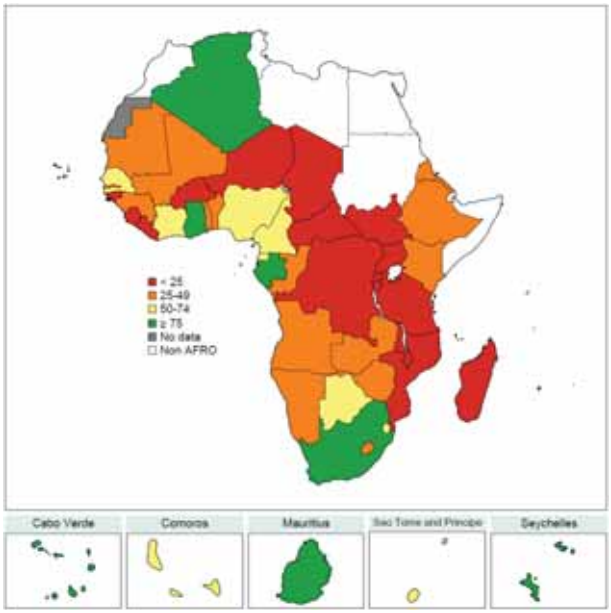
Figure 180 Population using improved sanitation (%) by residence in the African Region



Data source: WHO, 2015

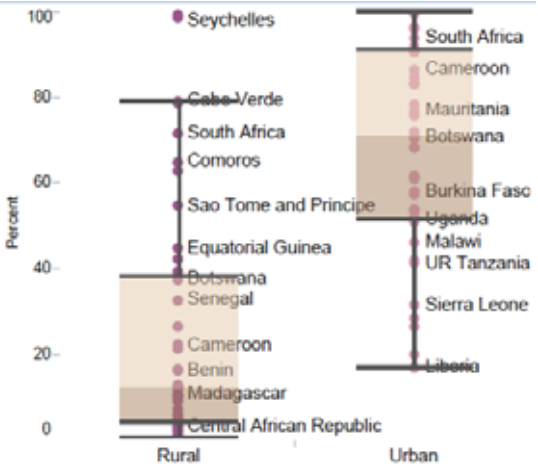
10.2 Access to electricity

Figure 181 Population with access to electricity in the African Region



Data source: The World Bank, 2014

Figure 182 Population with access to electricity (%) by residence in the African Region



Data source: The World Bank, 2014

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The following data sources have been used in the compilation of the Atlas:

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http://ghdx.healthdata.org/

Global Burden of Disease Study 2013 (GBD 2013) – Data Downloads
http://ghdx.healthdata.org/global-burden-disease-study-2013-gbd-2013-data-downloads

International Agency for Research on Cancer (IARC)

Cancer mondial
http://www-dep.iarc.fr/

GLOBOCAN 2012: Estimated cancer incidence, mortality and prevalence worldwide in 2012
http://globocan.iarc.fr

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http://www.internationalhealthpartnership.net/en/tools/global-compact/

International Telecommunication Union (ITU)

Statistics
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United Nations Maternal Mortality Estimation Inter-agency Group (MMEIG)

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World Bank Open Data
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World Health Organization (WHO)

Global Health Observatory (GHO) – Data repository
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http://www.who.int/tb/country/data/download/en/