World Health Organization
REGIONAL OFFICE FOR Africa

Atlas of African Health Statistics 2014

Health situation analysis of the African Region

African Health Observatory

Better information, better action on health

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Message from the Regional Director

The *Atlas of Health Statistics, 2014*, which provides a health situation analysis of WHO's African Region, is the most significant data output of the African Health Observatory (www.aho.afro.who.int). Now in its third edition, the *Atlas* is building on the ground-breaking work that was carried out in preparing the initial edition. Not only it has been updated for 2014, but its coverage has expanded and further indicators have been included. Another new development is the presence of the *Atlas* on the African Health Observatory web portal. It is being launched not merely as an electronic document, but as interactive web pages within the Observatory, allowing users to carry out searches and conduct analyses of their own. We aim to develop the *Atlas* on an ongoing basis, expanding its reach, indicators and accuracy as we go.

Of course all the data comes from the countries, and we are entirely reliant on data collection, cleaning, correction, evaluation and assessment carried out first of all at country level in each of the 47 Member Countries of WHO's African Region. These data are further reviewed and refined in WHO, both in its African country offices and Regional Office, and by technical experts at WHO headquarters in Geneva. Mortality estimates that are used to monitor internationally agreed goals, such as the MDGs, are produced by inter-agency groups consisting of members from WHO, UNICEF, and World Bank among others. The results of this system of analysis are data which is good for comparison of countries but which may not agree with estimates at country level. The figures are computed by WHO to ensure comparability; they are not necessarily the official statistics of Member States, which may use alternative valid methods. The Atlas also used data from other sources, including other UN sister agencies. Another source, especially for the data on morbidity was the 2010 Global Burden of Diseases Analyses that was undertaken by Institute of Health Metrics and Evaluation at the University of Washington.

Looking back to the raw inputs, however, it is clear that the quality, quantity, frequency of collection, and timeliness of data depends very much on the strength of the national health information systems, which include data collection at the district and peripheral levels. With some notable exceptions, this has been an area of weakness within most national health systems. By and large, the development of national health information systems has been slow and uneven, despite many efforts over the years.

WHO seeks to support countries in strengthening their national health information systems, and one mechanism that is being developed in response to demands from the countries is the establishment of a network of national health observatories. With support from WHO's Regional Office for Africa, a number of countries have taken steps to set up such observatories, often with direct links to the district level, as a way to reinforce the national health information system. The national observatories also link to the African Health Observatory, in a collaborative, two-way system of information, evidence and knowledge exchange. Such observatories serve at both the regional and national levels as platforms for other activities designed to foster monitoring and evaluation, which are essential components of the cycle of development and policy work that lead to national health policies and health development plans.

Thus, the collaborative networking approach embraced by the African Health Observatory and the national observatories is intended to provide a continuum between work at the regional and national levels, offering a platform for many disparate supporting mechanisms and methodologies. This should lead to a marked decrease of the fragmentation of efforts so frequently found in public health policy and development work. The Atlas is a product and promoter of such collaborative networking.

Dr Luis Gomes Sambo
Regional Director
WHO - Regional Office for Africa

African Region Statistical Profile : Overview

African Health Observatory
Better information, better action on health

World Health Organization
REGIONAL OFFICE FOR Africa

Figure A: The WHO African Region

Table: General population characteristics

		African Region	Global
Population size (in thousands)	2012	892,696	7,053,835
	2011	857,382	6,941,907
Population living in urban areas (%)	2011	38	52
	2000	34	50
Life expectancy at birth (years)	2011	56	70
	1990	50	64
Adult mortality rate (probability of dying between 15 and 60 years per 1000 population)	2011	339	160
	1990	377	204
Per capita total expenditure on health (PPP int. $)	2011	161	1,079
	2000	87	565
	1995	75	447
Gross national income per capita (PPP.int$)	2011	2,510	11,540
	2000	1,620	6,980

Figure B: Ranking of main disorders according to the percentage of death in 1990 and 2010, in sub-Saharan Africa

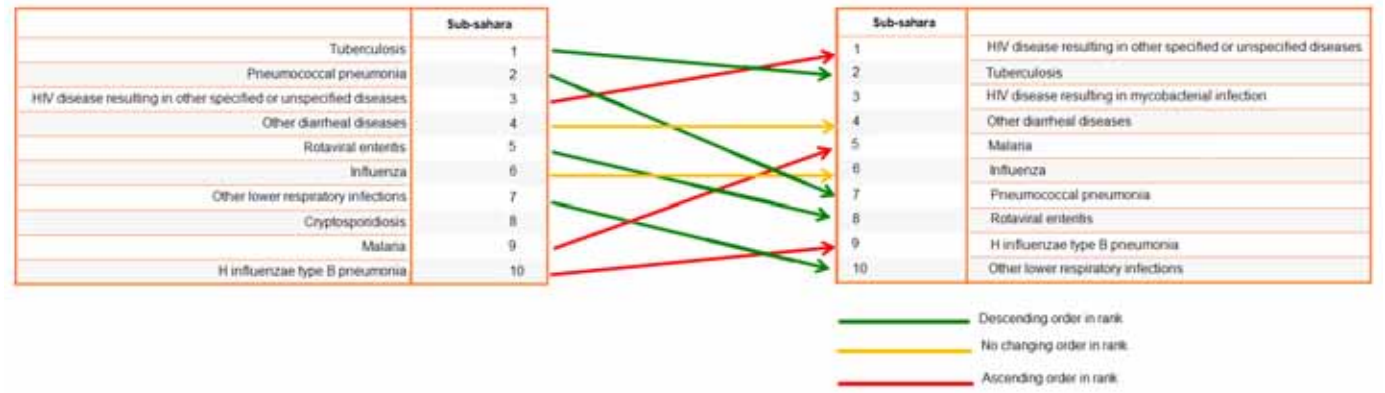


Figure C: Distribution of causes of death among children aged < 5 years, 2010

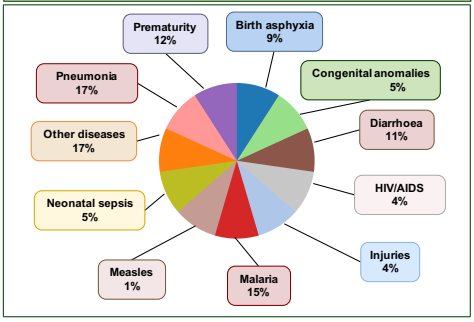


Figure D: Trend in average of general government health expenditure as percentage of general government expenditure, 1995-2011

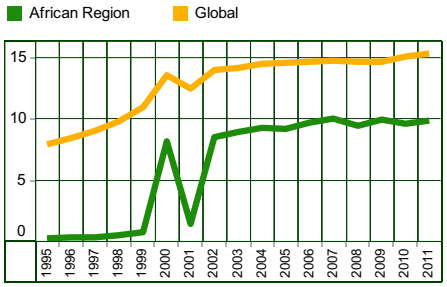


Figure E: Health workforce, 2005-2012

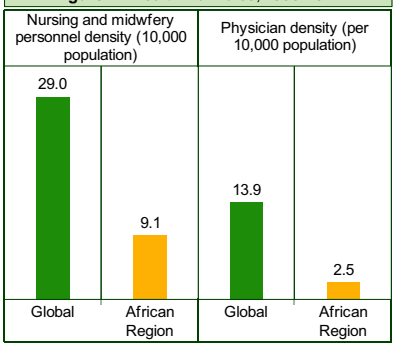


Figure F: Utilization of health services, 2005-2012
Antenatal care coverage (%) at least four visits

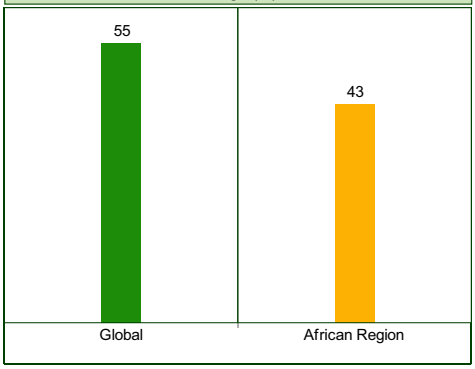


Figure G: Utilization of health services

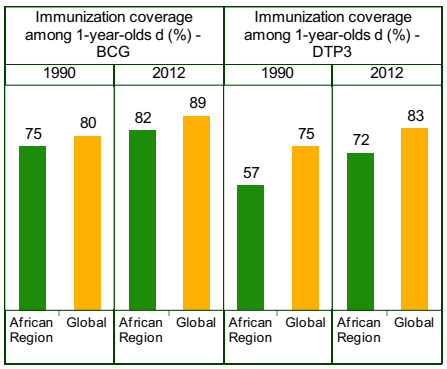
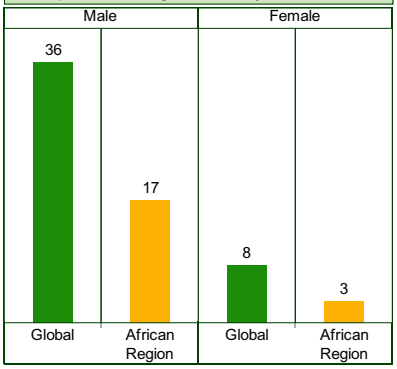


Figure H: Prevalence of smoking any tobacco product among adults >15 years, 2009



African Region Statistical Profile : Progress on the MDGS

MDG-4 : Reduce child mortality

Target 4 A : Reduce by two thirds, between 1990 and 2015, the under-five mortality rate

Figure I: Trend in under-5 mortality rate (probability of dying by age 5; per 1,000 live births) in the African Region, 1990-2012 and the MDG Target 2015

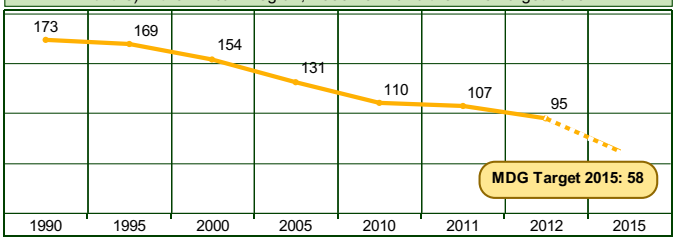


Figure J: The annual average rate of reduction (AARR %) in under-5 mortality rate, between 1990 and 2012

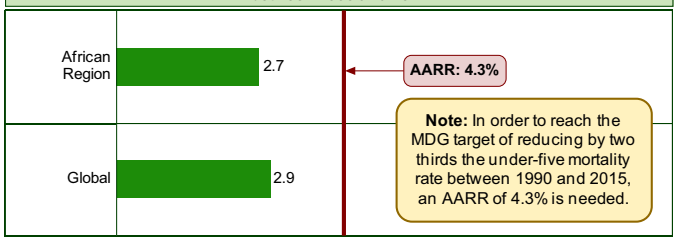


Figure K: Trend in Measles-containing vaccine (MCV) immunization coverage among 1-year-olds (%) in the African Region,1980-2012

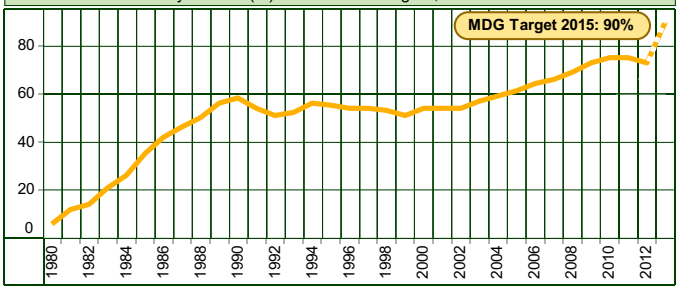
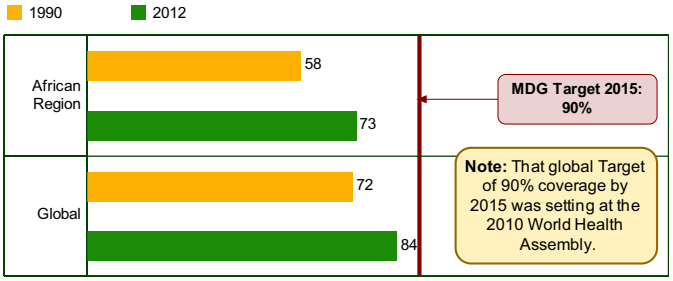


Figure L: Measles-containing vaccine (MCV)immunization coverage among 1-year-olds (%),1990 and 2012



MDG-5 : Improve maternal health

Target 5 A : Reduce by three quarters, between 1990 and 2015, the maternal mortality rate

Target 5 B: Achieve, by 2015, universal access to reproductive health

Figure M: Trend in maternal mortality ratio (per 100,000 live births) in the African Region, 1990-2010 and the MDG Target 2015

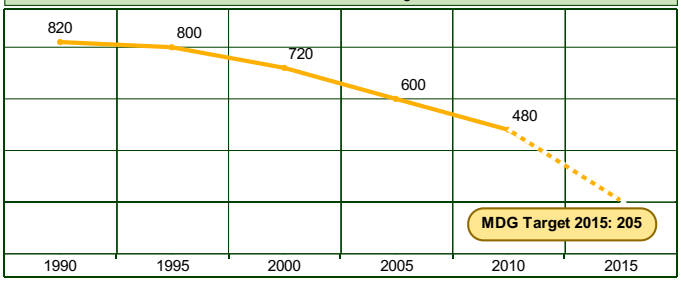


Figure N: Annual average rate of reduction (AARR %) in maternal mortality ratio, between 1990 and 2010

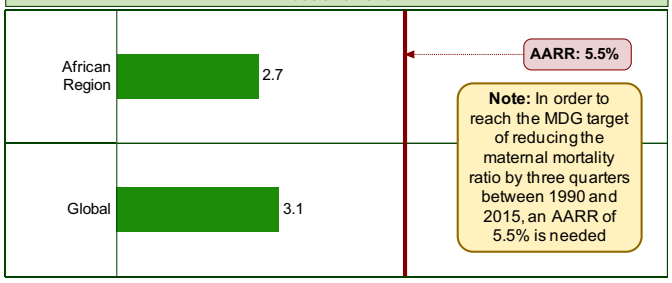


Figure O: Percentage of births attended by skilled (SBA) health personnel

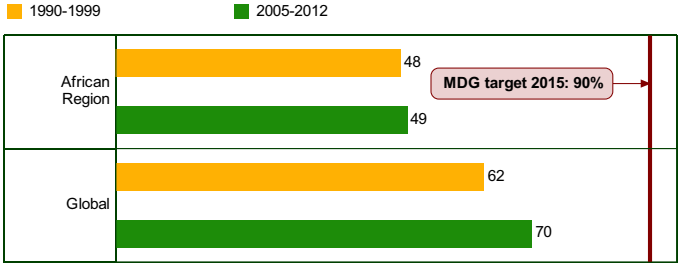


Figure P: Percentage of unmet need for family planning, 2005-2012

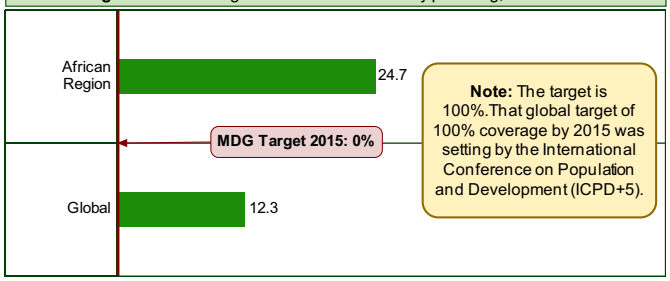


Figure Q: Percentage of Antenatal care coverage at least one visit (ANC1), 2005-2012

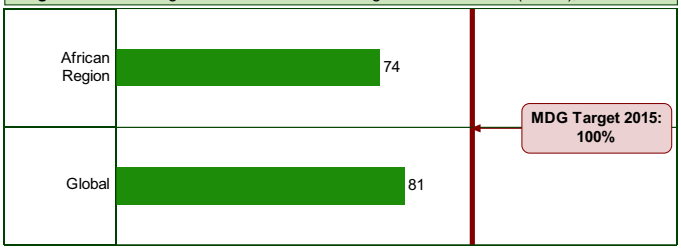
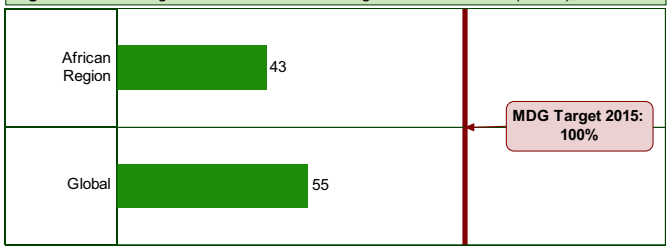


Figure R: Percentage of Antenatal care coverage at least four visits (ANC4), 2005-2012



African Region Statistical Profile : Progress on the MDGS

MDG-6: Combat HIV/AIDS, malaria and other diseases

Target 6 A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS

Target 6 B: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it

Target 6 C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases

Figure S: The annual average rate of reduction (AARR %) in HIV prevalence, between 2001 and 2011

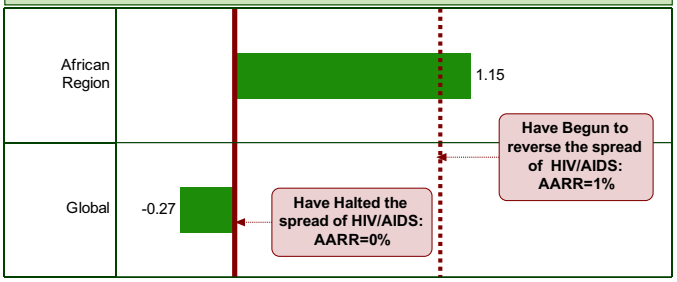


Figure T: Percentage of Antiretroviral therapy coverage among people with advanced HIV infection, 2007 and 2011

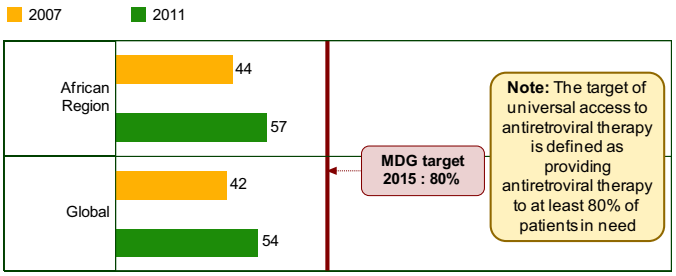


Figure U: The annual average rate of reduction (AARR %) in incidence of malaria, between 2000 and 2010

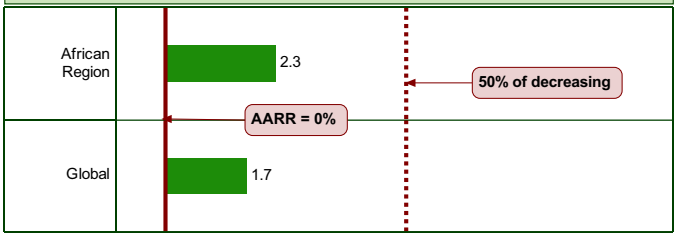
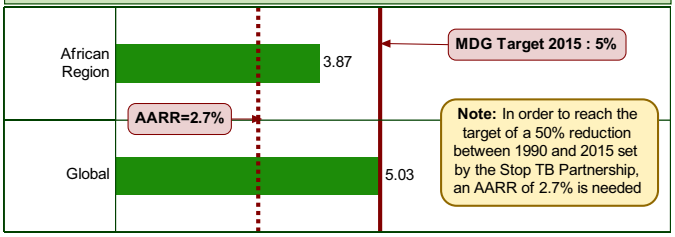


Figure V: The annual average rate of reduction (AARR %) in mortality rate of tuberculosis, between 1990 and 2012



MDG-7 : Ensure environmental sustainability

Target 7C : Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation

Figure W: The annual average rate of reduction (AARR %) in population using improved drinking-water sources, between 1990 and 2011

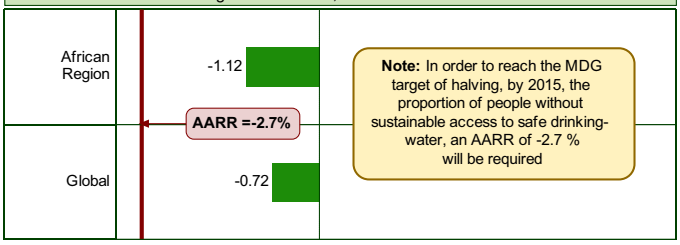
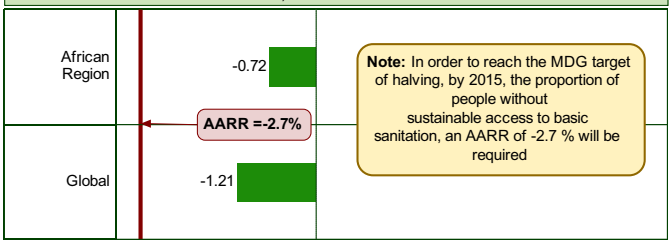


Figure X: The annual average rate of reduction (AARR %) in population using improved sanitation, between 1990 and 2011



MDG-1 : Eradicate extreme poverty and hunger

Target 1C : Halve, between 1990 and 2015, the proportion of people who suffer from hunger

Figure Y : Trend in proportion of underweight children under-five years of age in the African Region, 1990-2012 and the MDG Target 2015

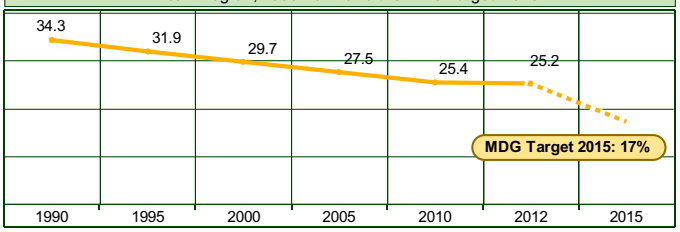
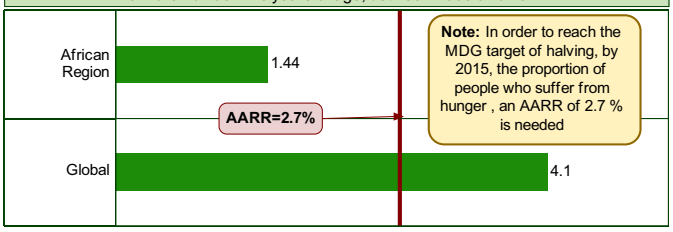


Figure Z: The annual average rate of reduction (AARR %) in proportion of underweight children under-five years of age, between 1990 and 2012



1. Introduction

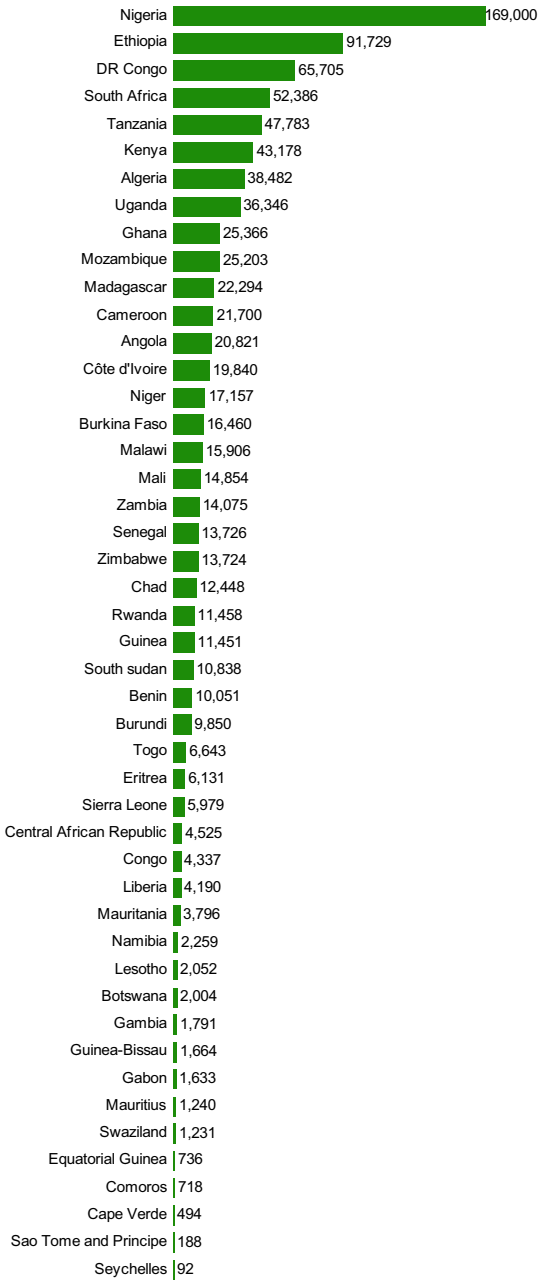
Figure 1.1: WHO Regions

The African Region is one of the six regions (see figure 1.1) in which the World Health Organization (WHO) collaborates with countries in public health. With over 892 millions inhabitants in 47 countries (see figure 1.2), it accounts for about one seventh of the world's population. This statistical atlas describes the health status and trends in the countries of the African Region, the various components of their health systems, coverage and access levels for specific programmes and services, and the broader determinants of health in the Region, and the progress made on reaching the Millennium Development Goals (MDGs).

Each indicator is described, as appropriate, by place (WHO regions and countries in the African Region), person (age and sex) and time (various years) using a bar graph. The aim is to give a comprehensive overview of the health situation in the African Region and its 47 Members States.

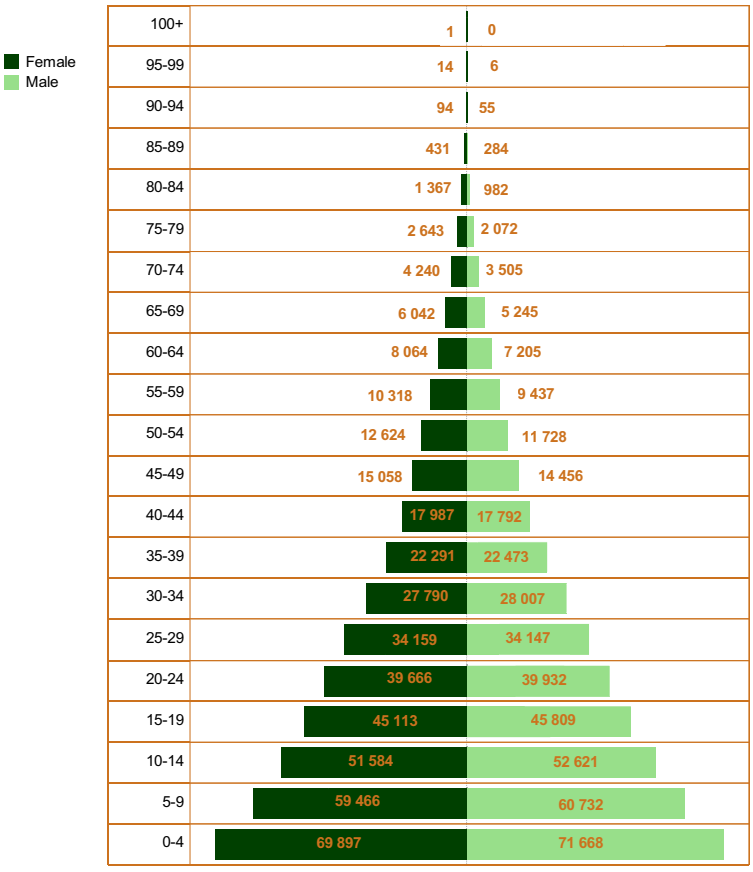
The main source for the data is WHO-AFRO's integrated database based on the World Health Statistics 2013. Other UN agency databases have been used when necessary. All the data and figures in this Atlas can be accessed through the African Health Observatory (www.aho.afro.who.int).

Figure 1.2: Population size (in thousands) of countries of the African Region, 2012



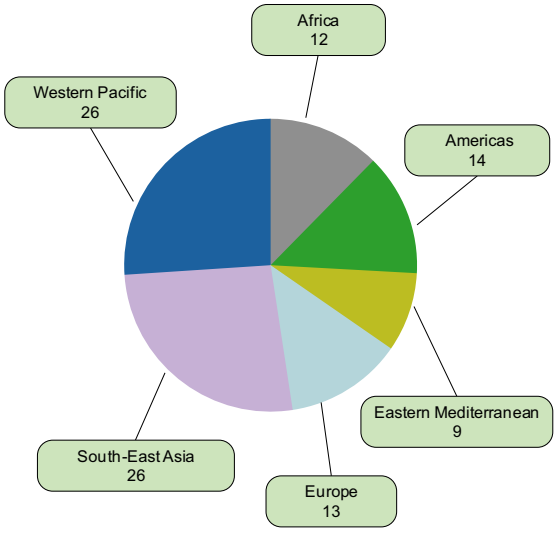
Source: WHO, November 2013.

Figure 1.3: Distribution of population (thousands) by five-year age group and by sex in the African region, 2010



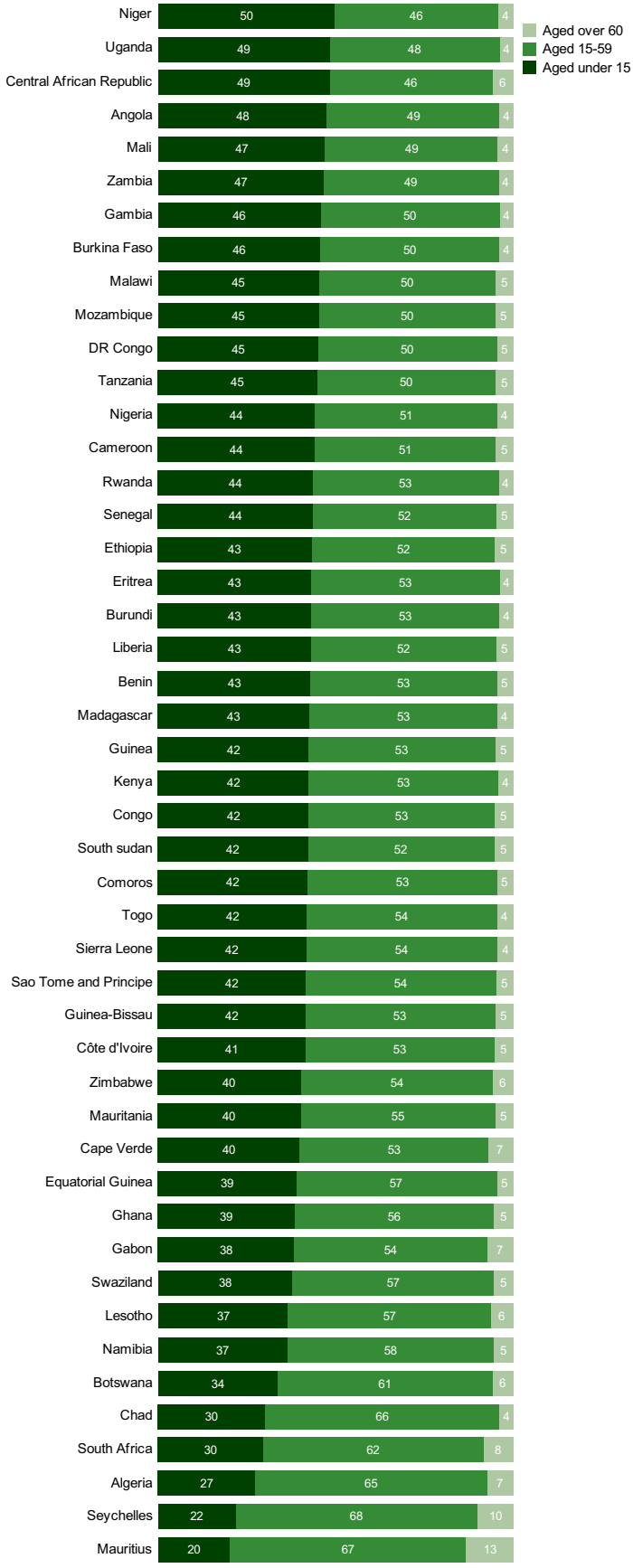
Source: UN, October 2013

Figure 1.4: Population size (in percentage) by WHO Region, 2011



Source: WHO, November 2013.

Figure 1.5: Age distribution (%) of the population in the African Region, 2012



Source: WHO, November 2013.

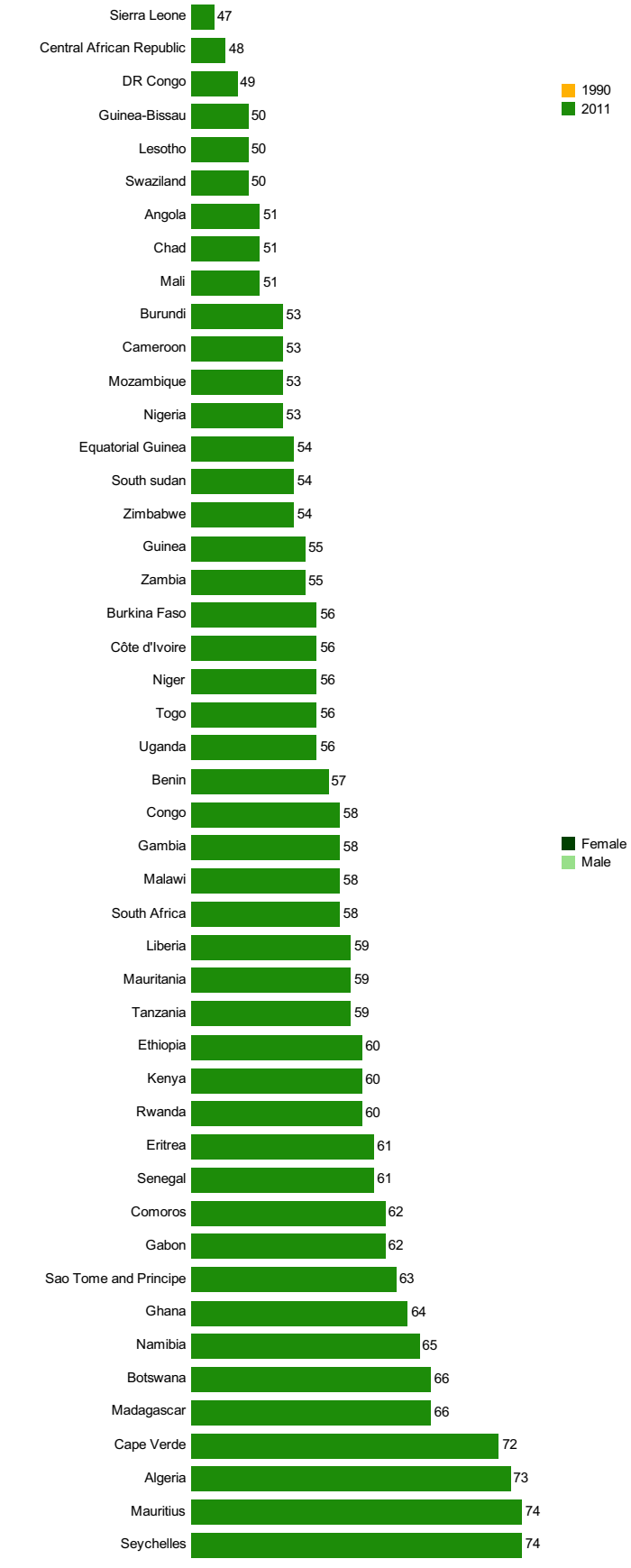
Figure 1.6: Annual growth rate (%) distribution of population by WHO Region, 2001-2011

Source: WHO, November 2013.

2. Health status and trends

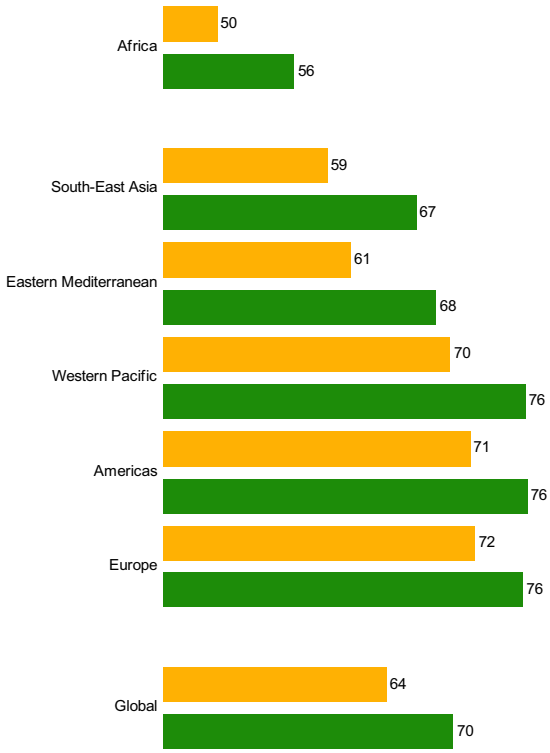
2.1 Life expectancy

Figure 2.1.1: Life expectancy at birth in years in the African Region, 2011



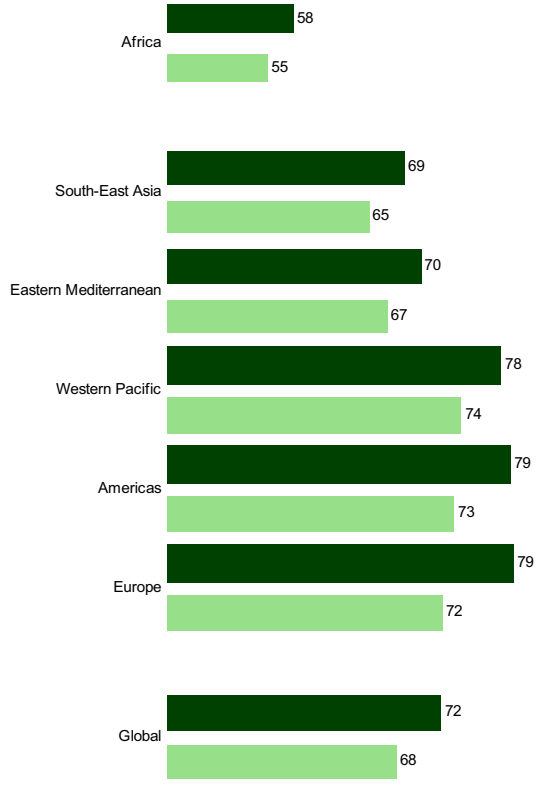
Source: WHO, November 2013.

Figure 2.1.2: Life expectancy at birth in years by WHO Region, 1990 and 2011



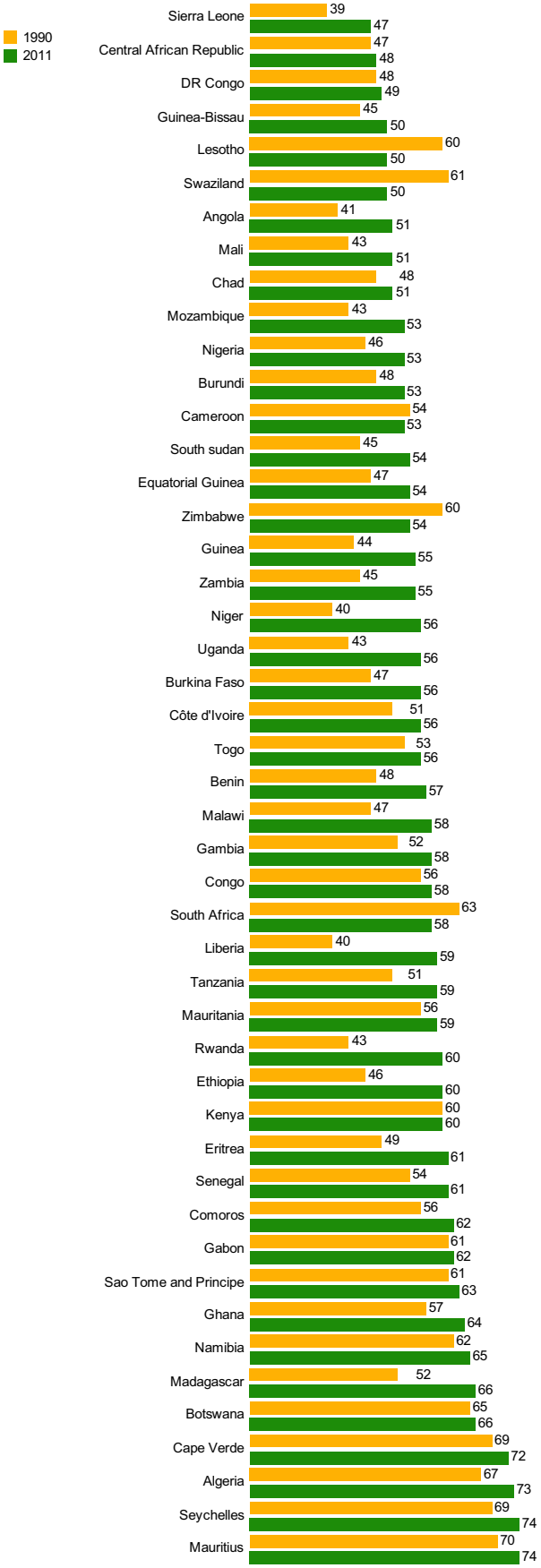
Source: WHO, November 2013.

Figure 2.1.3: Life expectancy at birth in years by WHO Region, by sex, 2011



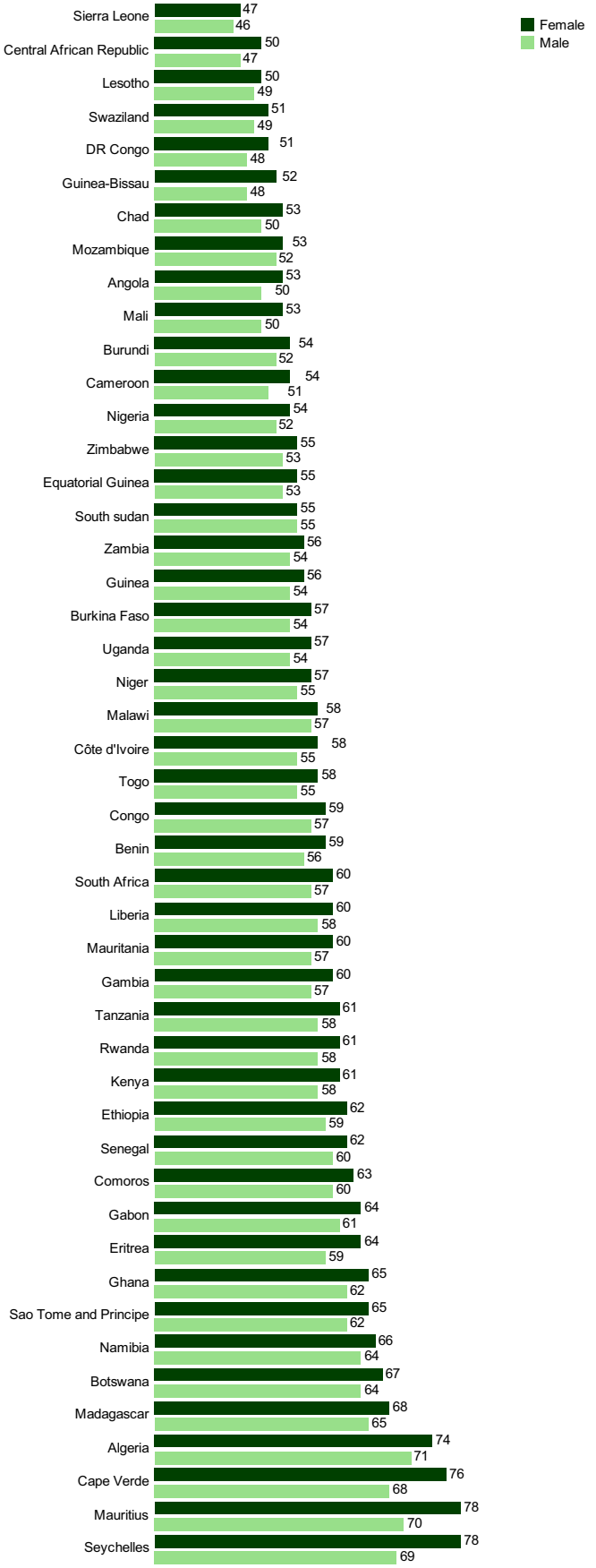
Source: WHO, November 2013.

Figure 2.1.4: Life expectancy at birth in years in the African Region, 1990 and 2011



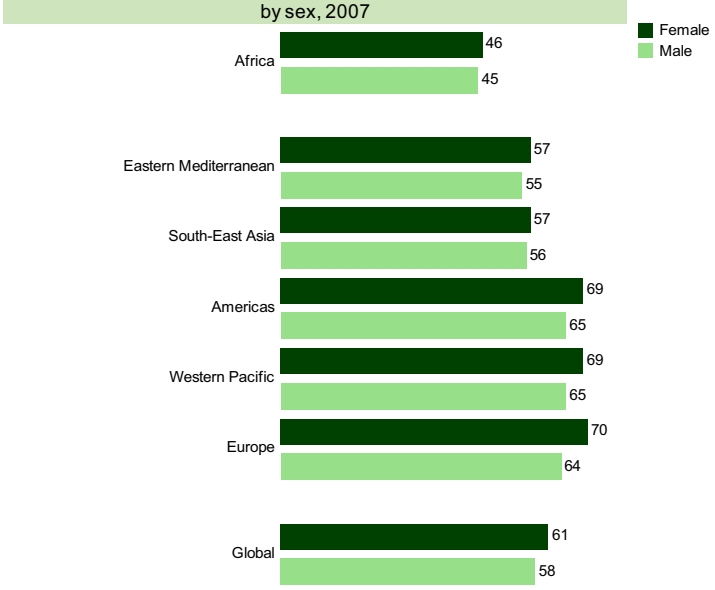
Source: WHO, November 2013.

Figure 2.1.5: Life expectancy at birth in years in the African Region, by sex, 2011



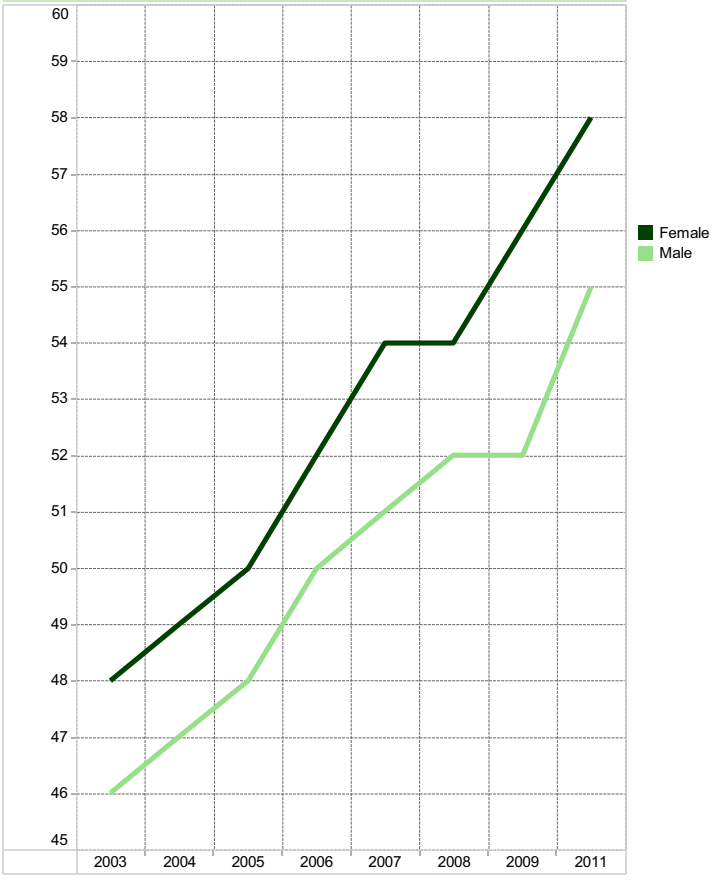
Source: WHO, November 2013.

Figure 2.1.6: Healthy life expectancy* at birth in years by WHO Region, by sex, 2007



Source: WHO, November 2013.

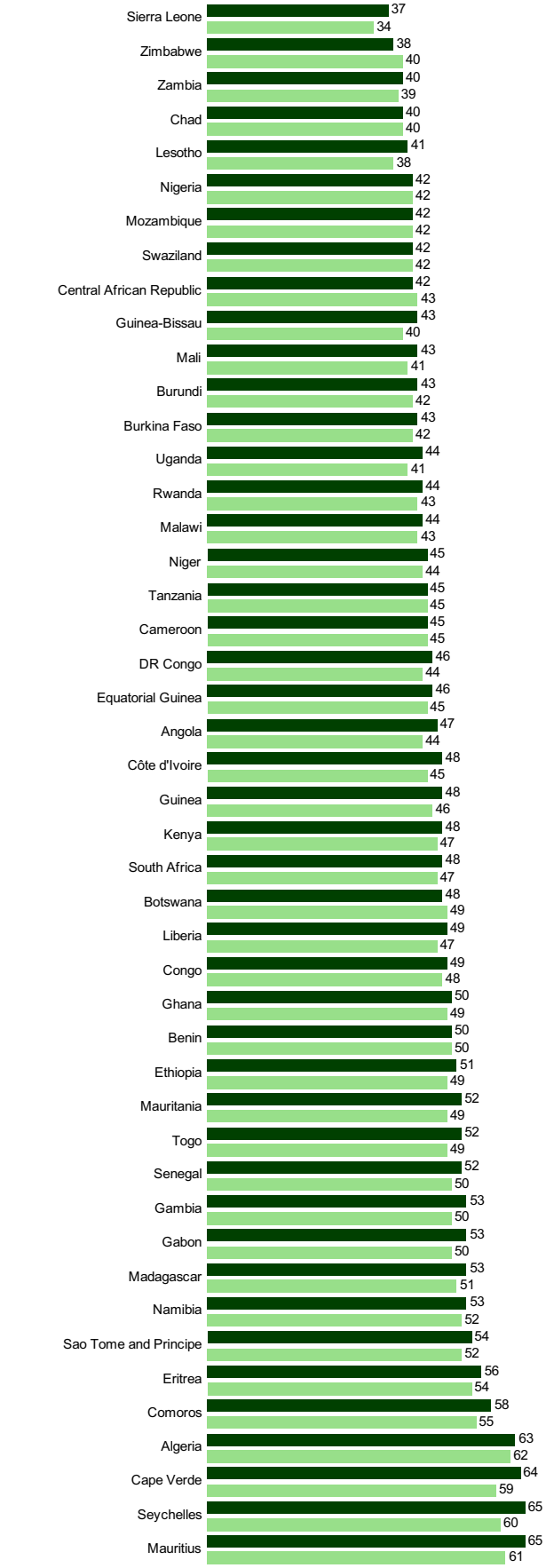
Figure 2.1.8: Trend in life expectancy at birth in years in the African Region, by sex, 2003 to 2011



Source: WHO, November 2013.

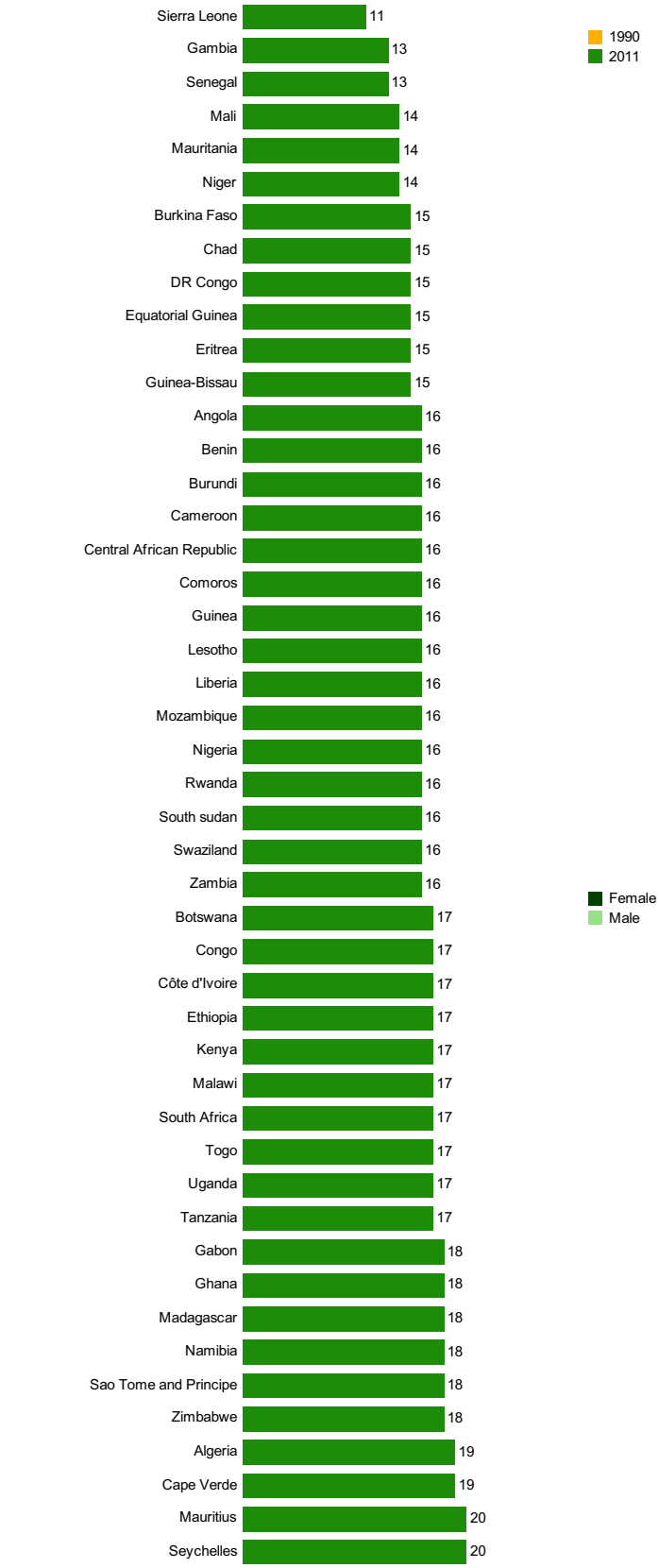
* Average number of years that a person can expect to live in 'full health' by taking into account years lived in less than full health due to disease and /or injury

Figure 2.1.7: Healthy life expectancy at birth in years in the African Region, by sex, 2007



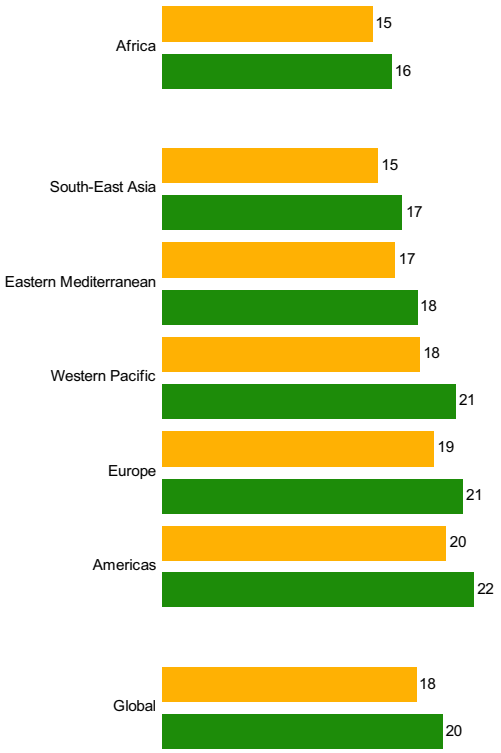
Source: WHO, November 2013.

Figure 2.1.9: Life expectancy at age 60 (years) in the African Region, 2011



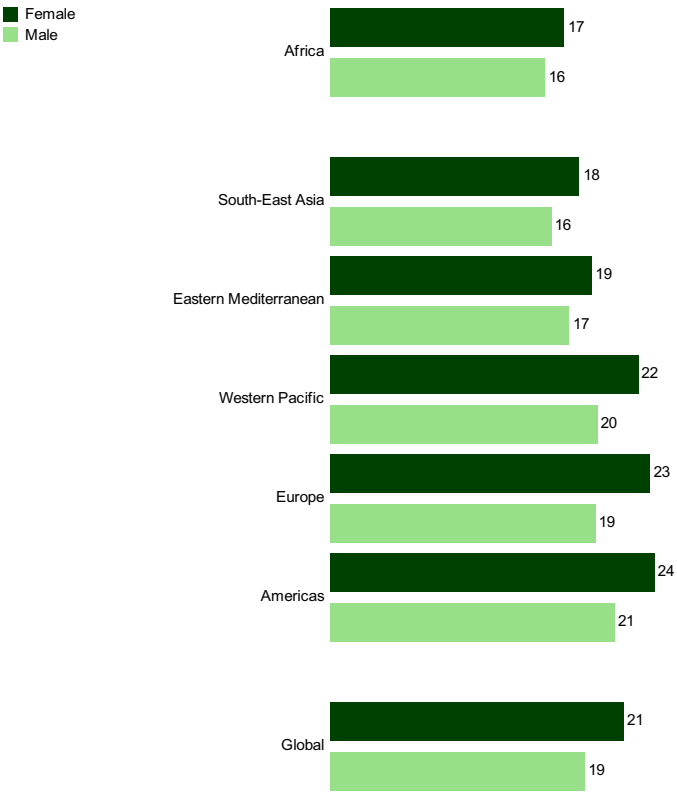
Source: WHO, November 2013.

Figure 2.1.10: Life expectancy at age 60 (years) by WHO Region, 1990 and 2011



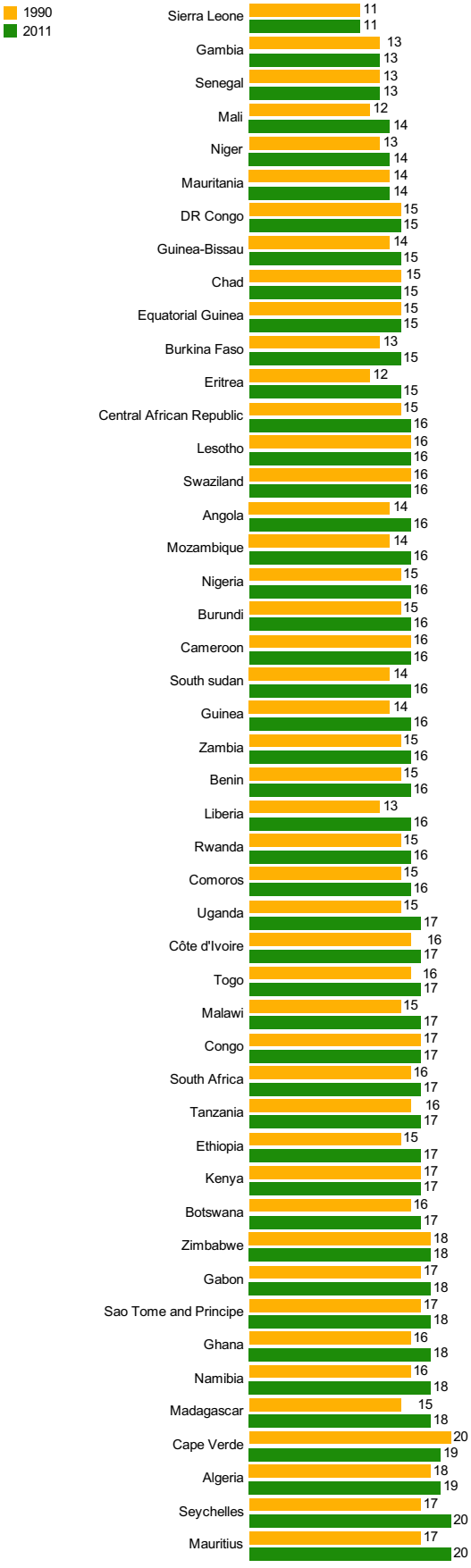
Source: WHO, November 2013.

Figure 2.1.11: Life expectancy at age 60 (years) by WHO Region, by sex, 2011



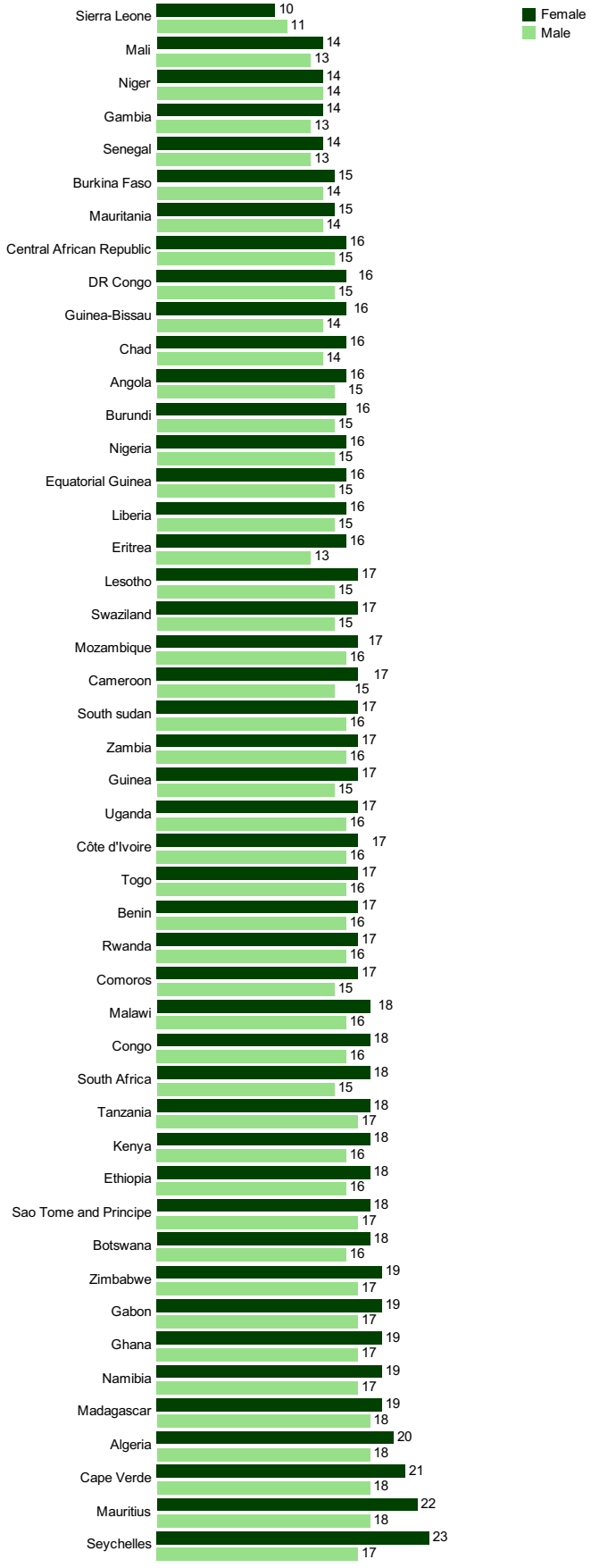
Source: WHO, November 2013.

Figure 2.1.12: Life expectancy at age 60 (years) in the African Region, 1990 and 2011



Source: WHO, November 2013.

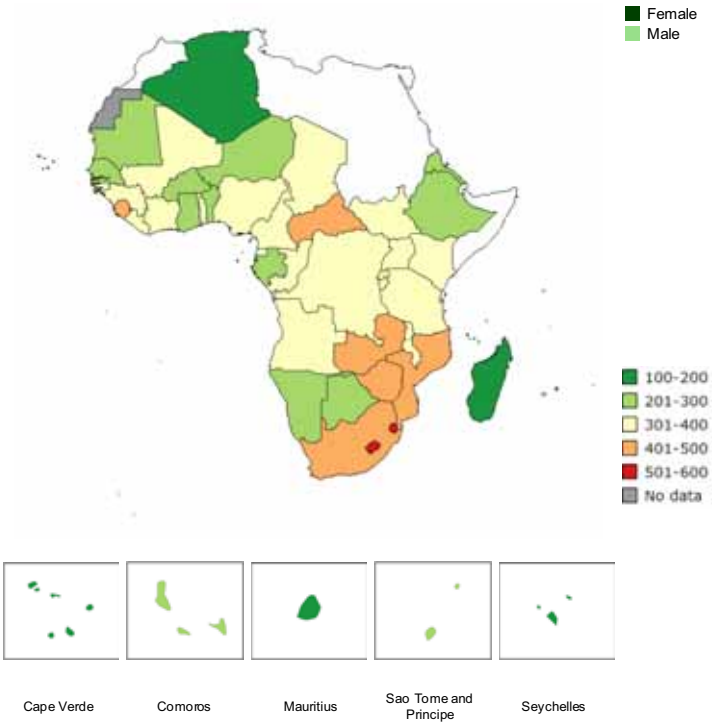
Figure 2.1.13: Life expectancy at age 60 (years) in the African Region, by sex, 2011



Source: WHO, November 2013.

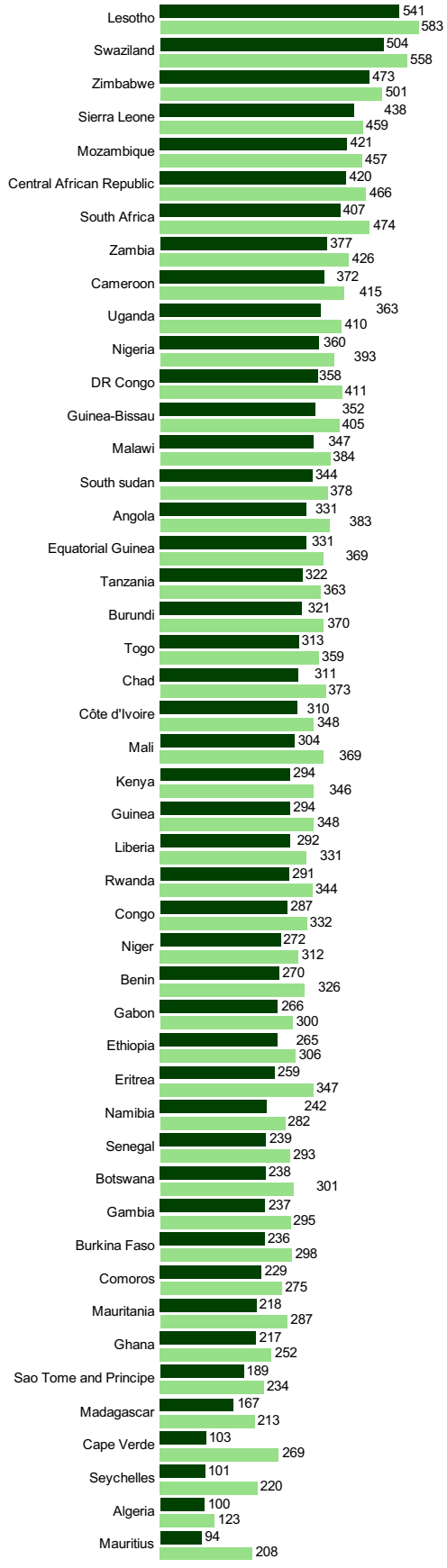
2.2 Mortality

Figure 2.2.1: Adult mortality rate per 1,000 population in the African Region, 2011



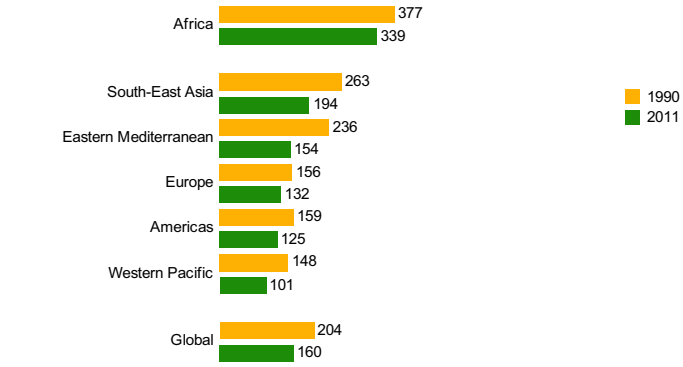
Source: WHO, November 2013.

Figure 2.2.2: Adult mortality rate per 1,000 population in the African Region, by sex, 2011



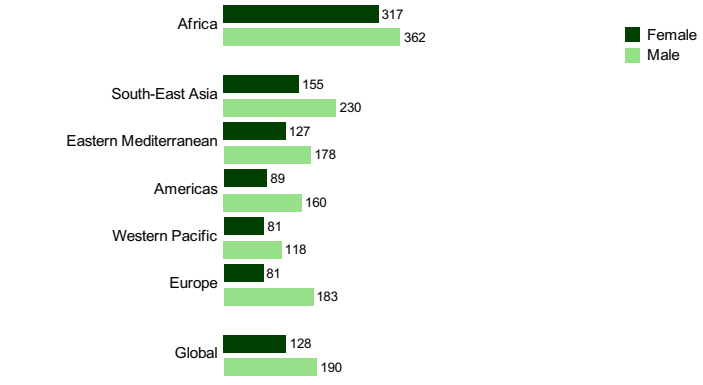
Source: WHO, November 2013.

Figure 2.2.3: Adult mortality rate per 1,000 population by WHO Region, 1990 and 2011



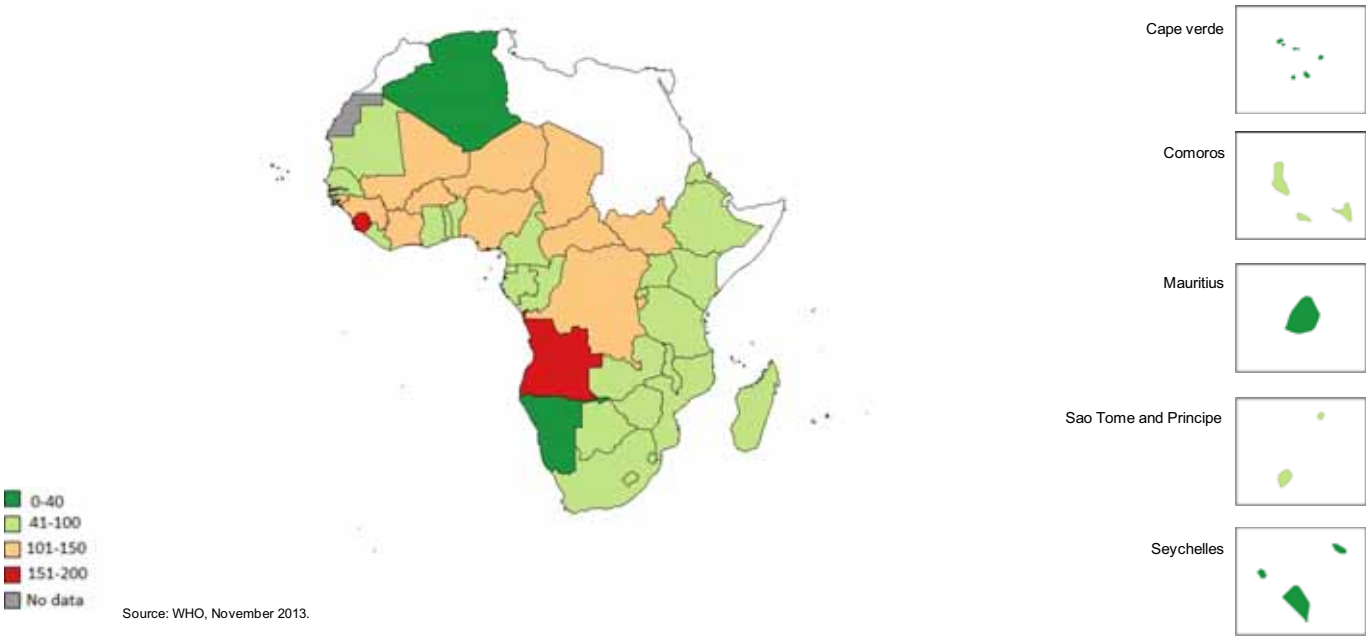
Source: WHO, November 2013.

Figure 2.2.4: Adult mortality rate per 1,000 population by WHO Region, by sex, 2011



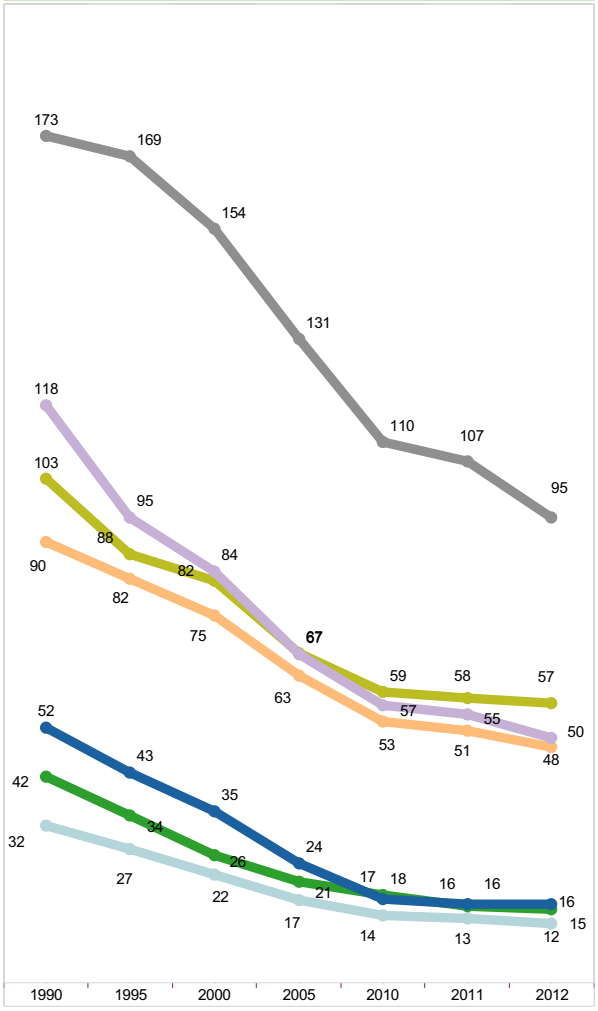
Source: WHO, November 2013.

Figure 2.2.5: Under-5 mortality rate per 1,000 live births in the African Region, 2012



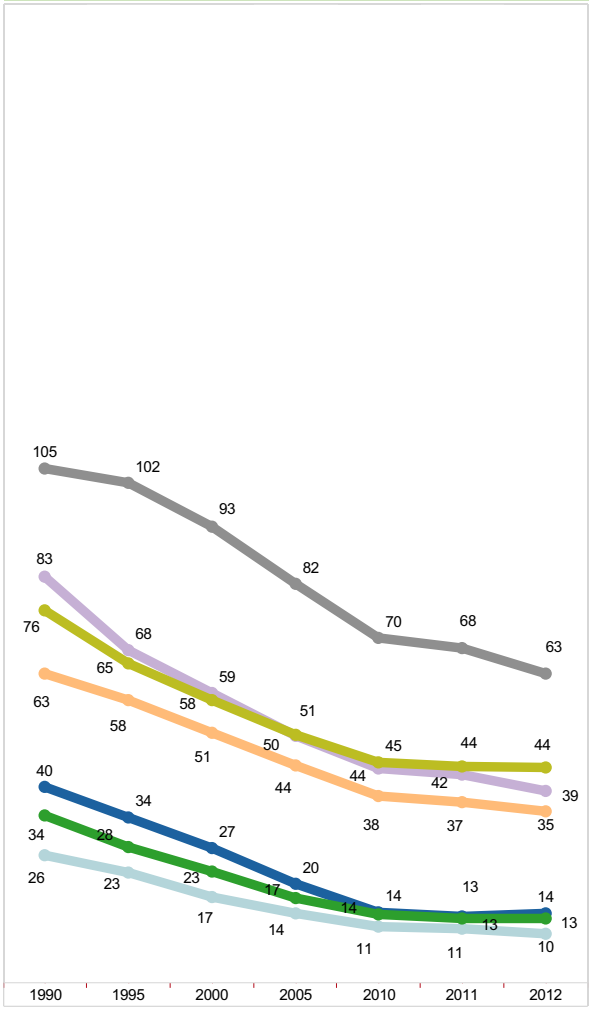
Source: WHO, November 2013.

Figure 2.2.6: Trend in Under-5 mortality rate per 1,000 live births by WHO Region, from 1990 to 2012



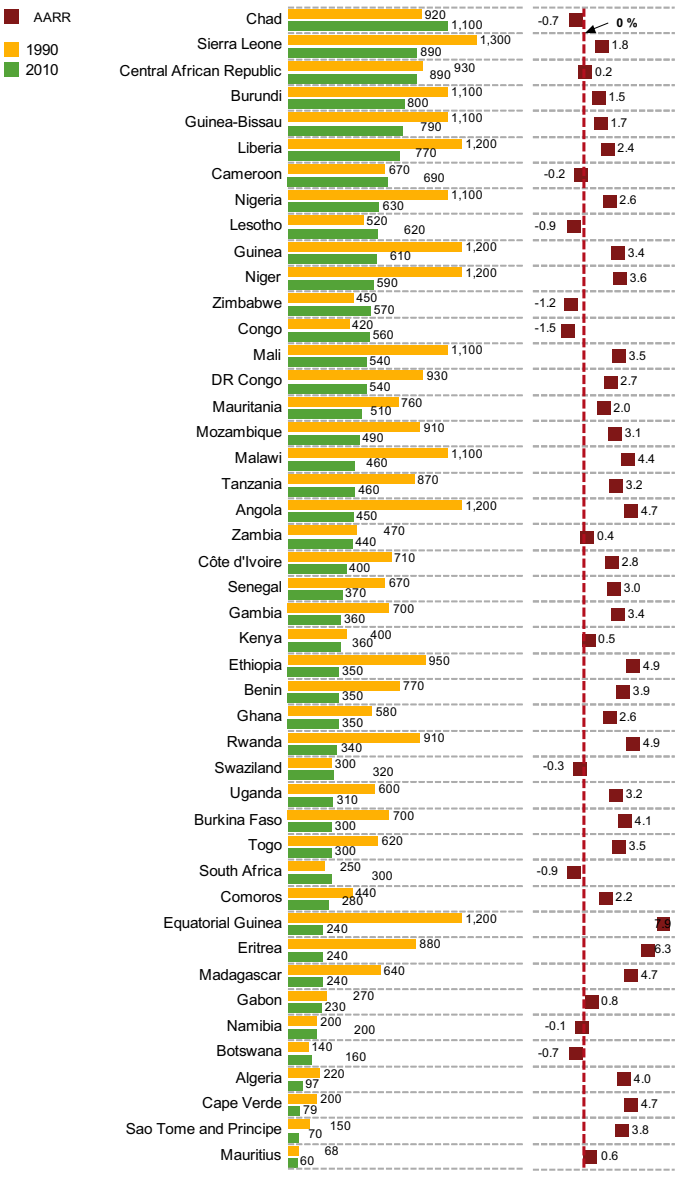
Source: WHO, November 2013.

Figure 2.2.7: Trend in Infant mortality rate per 1,000 live births by WHO Region, from 1990 to 2012



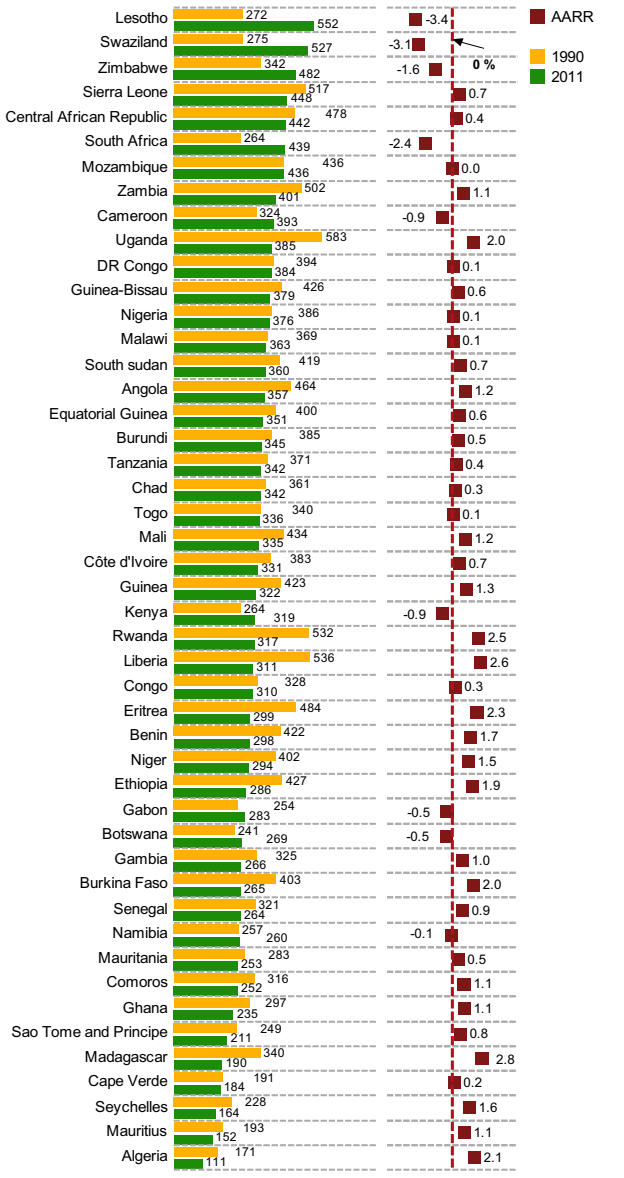
Source: WHO, November 2013.

Figure 2.2.8: Maternal mortality ratio per 100 000 births and Average Annual Rate of Reduction (AARR in %) in the African Region, 1990 and 2010



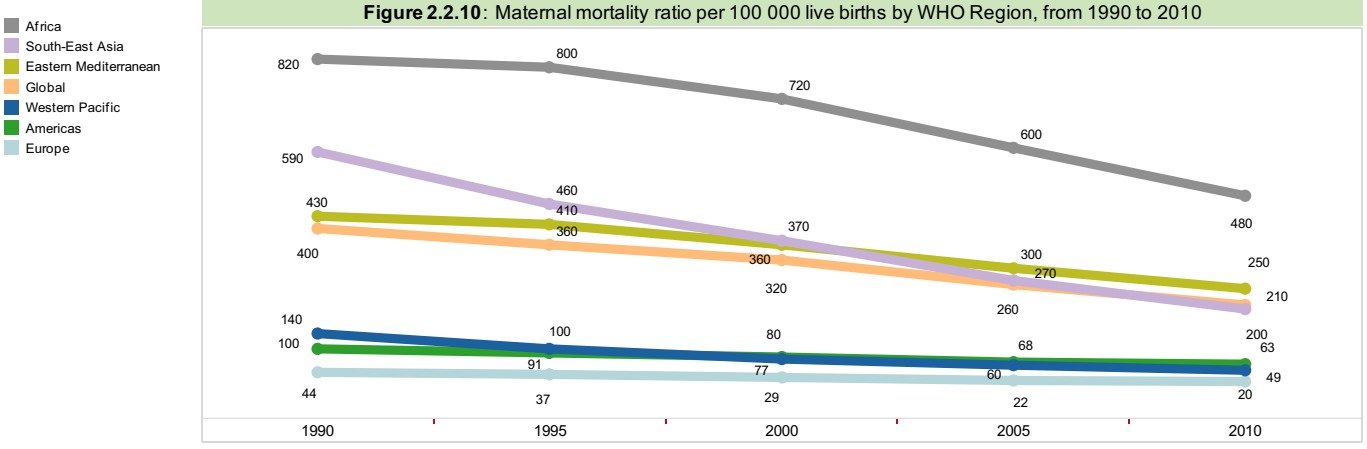
Source: WHO, November 2013.

Figure 2.2.9: Adult mortality rate per 1,000 population and Average Annual Rate of Reduction (AARR in %) in the African Region, 1990 and 2011



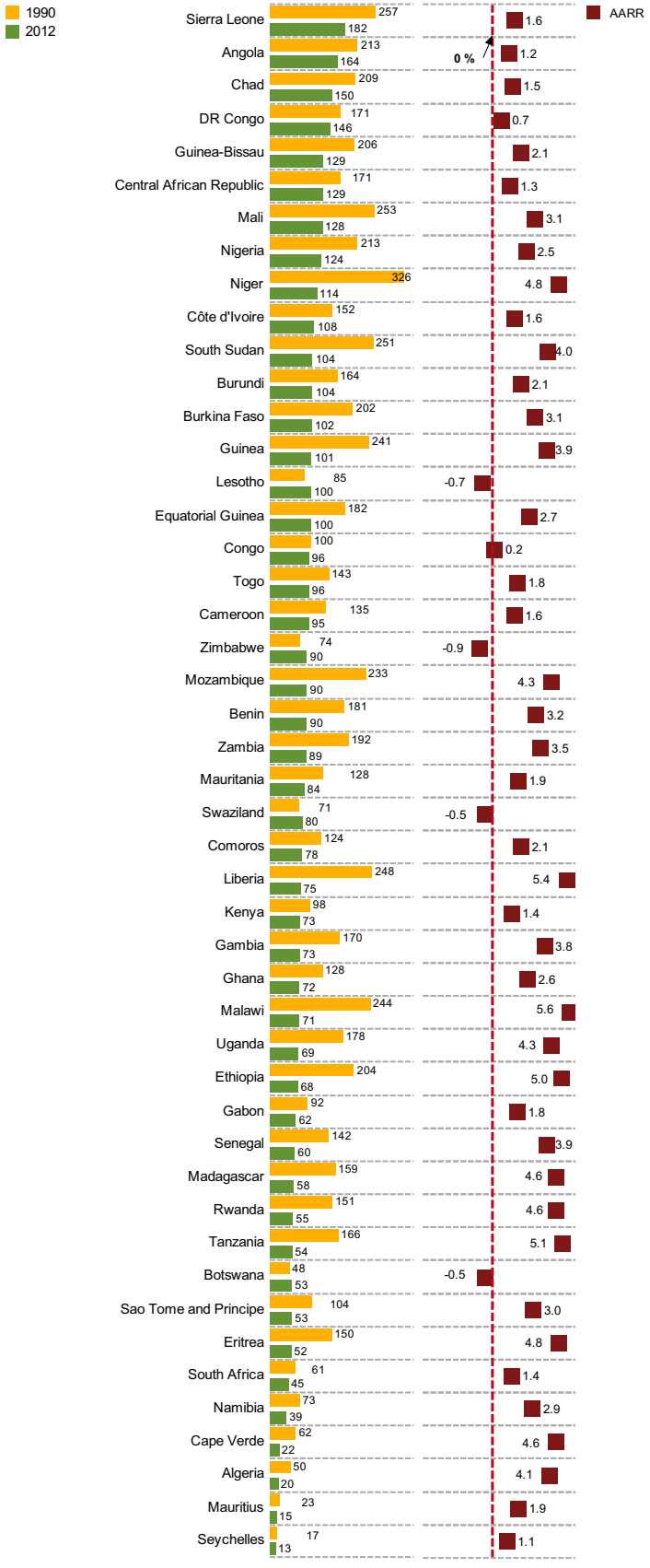
Source: WHO, November 2013.

Figure 2.2.10: Maternal mortality ratio per 100 000 live births by WHO Region, from 1990 to 2010



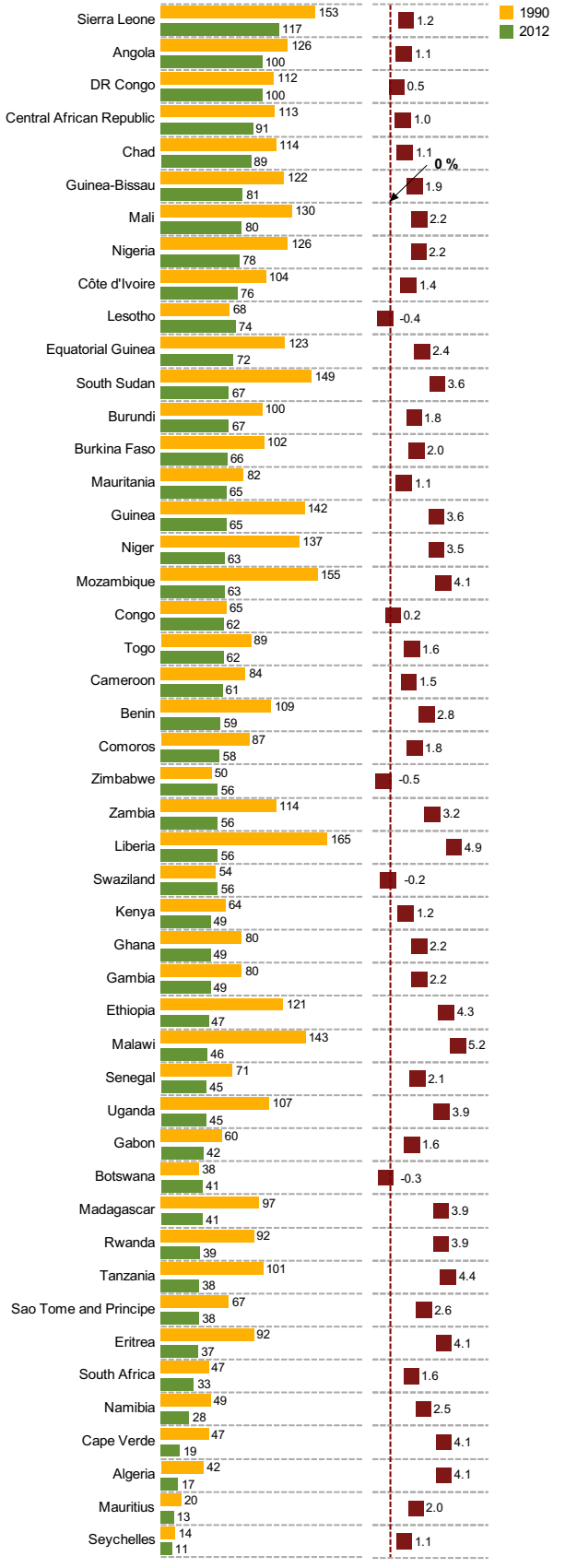
Source: WHO, November 2013.

Figure 2.2.11: Under-5 mortality rate per 1,000 live births and Average Annual Rate of Reduction (AARR in %) in the African Region, 1990 and 2012



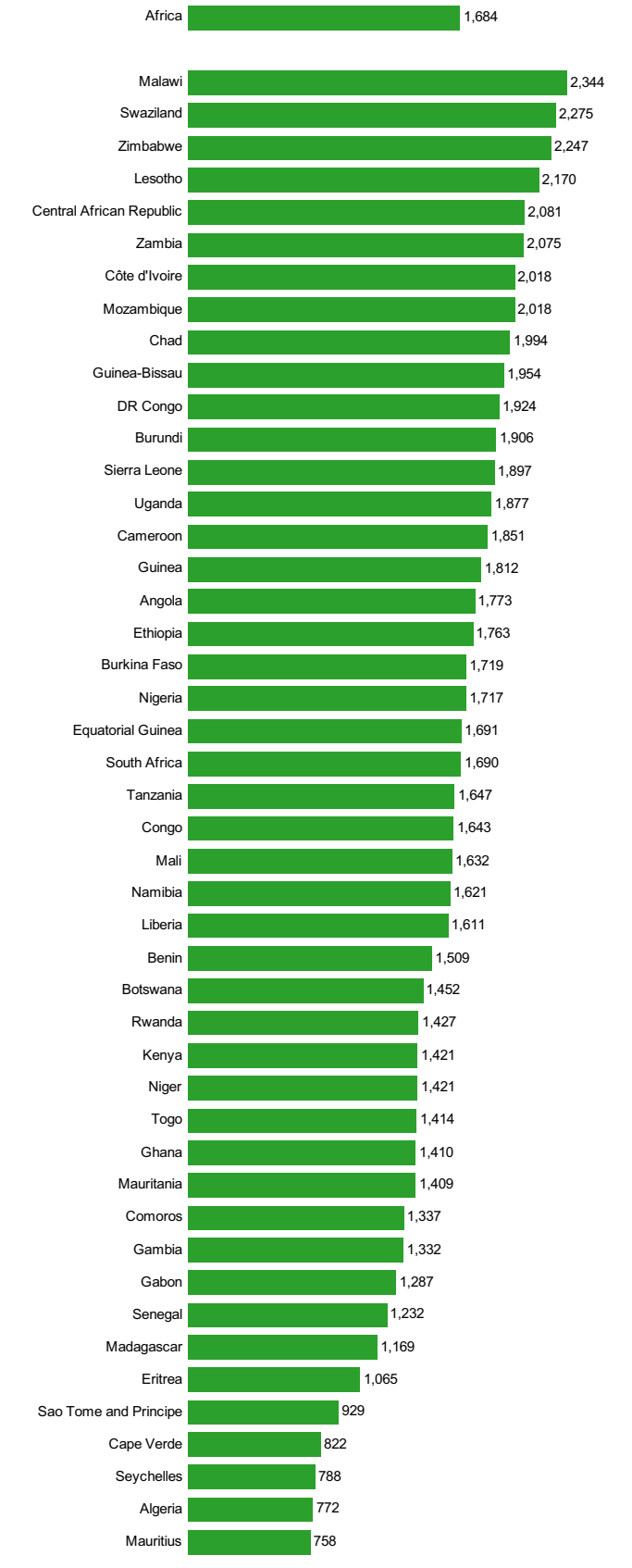
Source: WHO, November 2013.

Figure 2.2.12: Infant mortality rate per 1,000 live births and Average Annual Rate of Reduction (AARR in %) in the African Region, 1990 and 2012



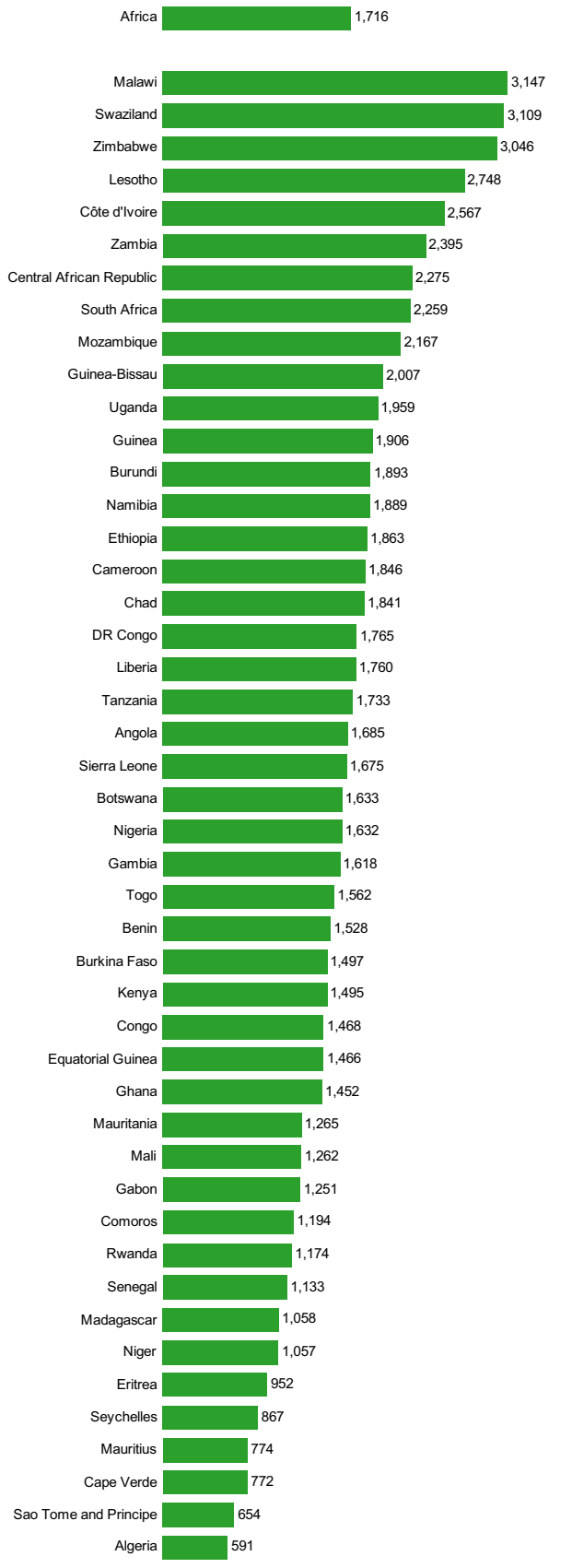
Source: WHO, November 2013.

Figure 2.2.13: Age-standardized death rates * per 100 000 population in the African Region, 2008



Source: WHO, November 2013.

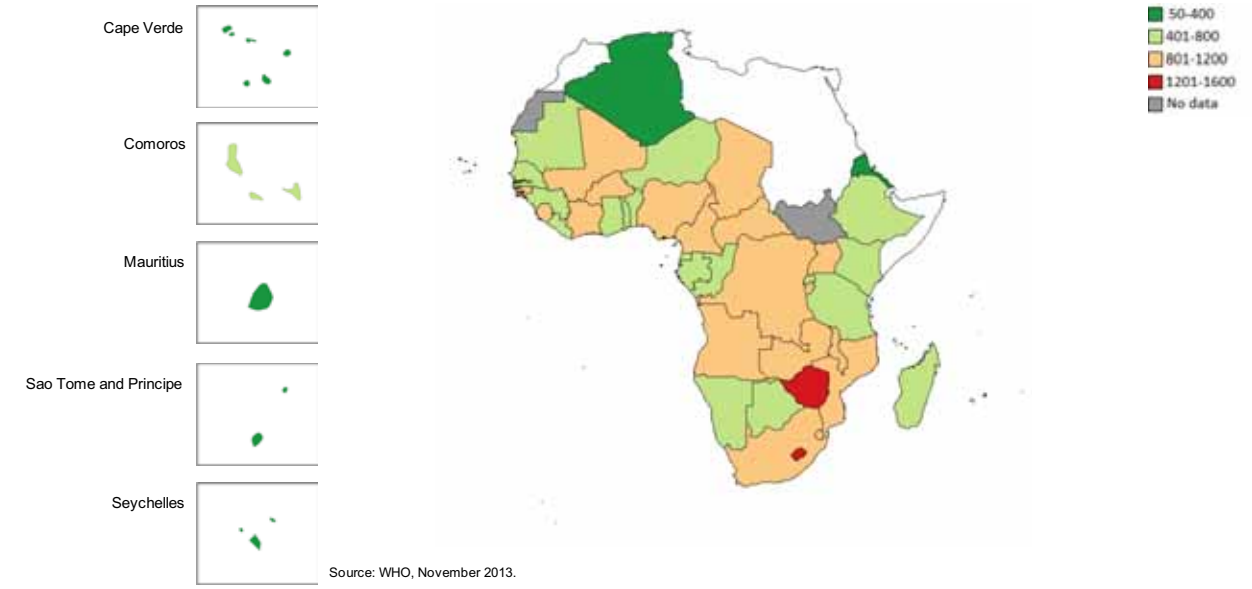
Figure 2.2.14: Age-standardized death rates (ages 30-70) per 100 000 population in the African Region, 2008



Source: WHO, November 2013.

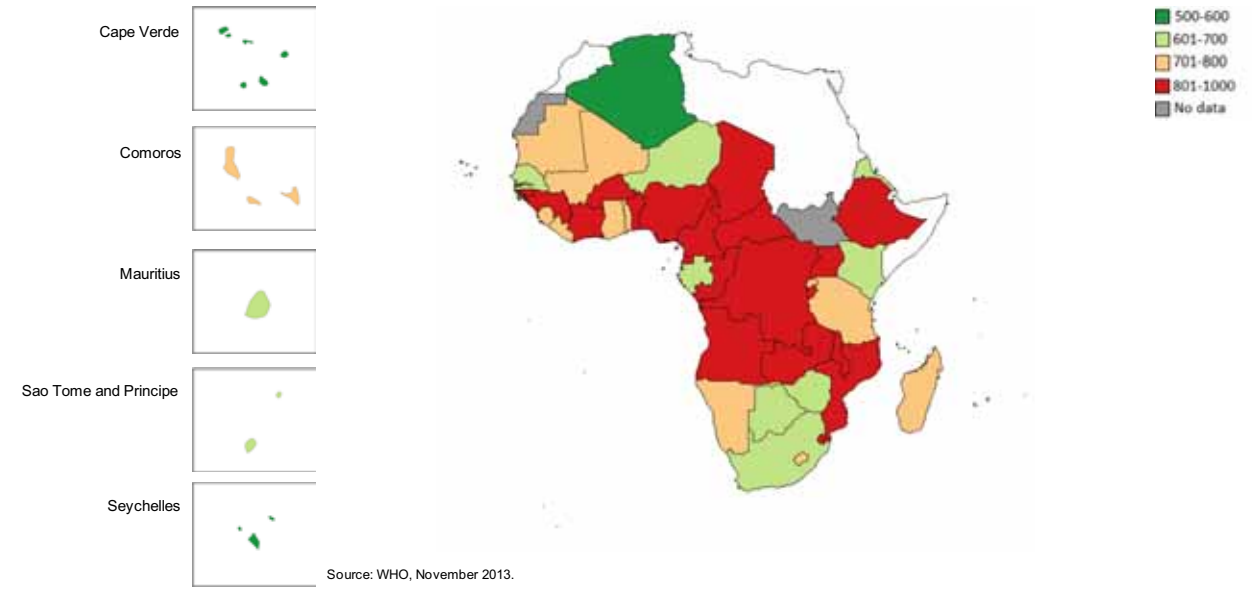
* Rates are age-standardized to WHO's world standard population. Ahmad OB, Boschi-Pinto C, Lopez AD et al. Age Standardization of Rates. A new WHO Standard. Geneva: WHO, 2001. Available at: www.who.int/healtinfo/paper31.pdf.

Figure 2.2.15: Age-standardized death rates per 100 000 population due to communicable diseases in the African Region, 2008



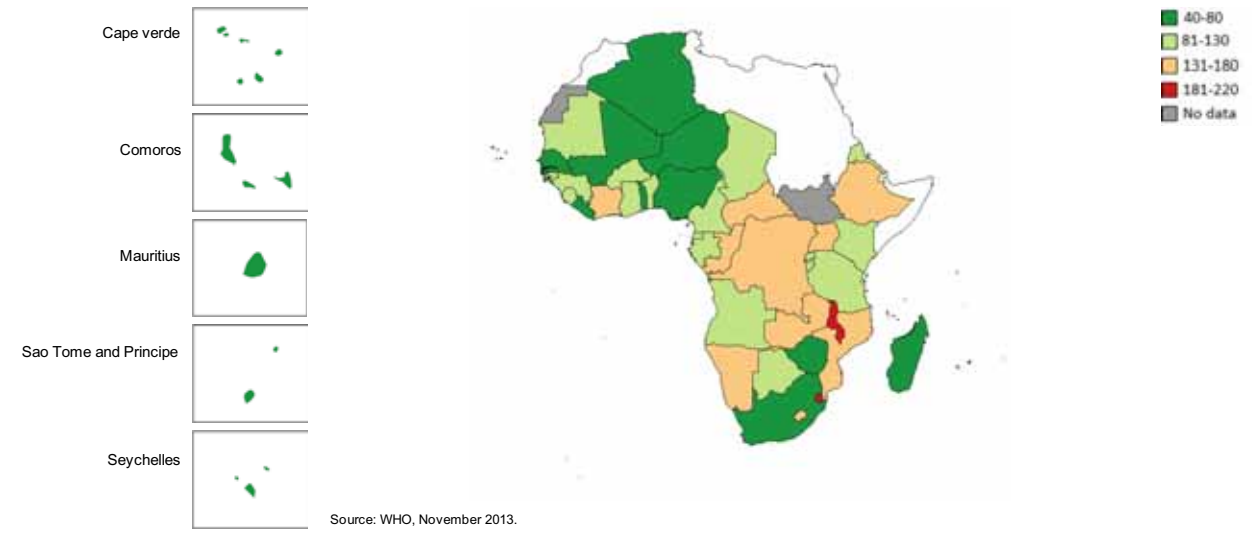
Source: WHO, November 2013.

Figure 2.2.16: Age-standardized death rates per 100 000 population due to noncommunicable diseases in the African Region, 2008



Source: WHO, November 2013.

Figure 2.2.17: Age-standardized death rates per 100 000 population due to injuries and violence in the African Region, 2008



Source: WHO, November 2013.

Figure 2.2.18: Ranking of main disorders according to the percentage of death in 2010, by sub-Saharan region

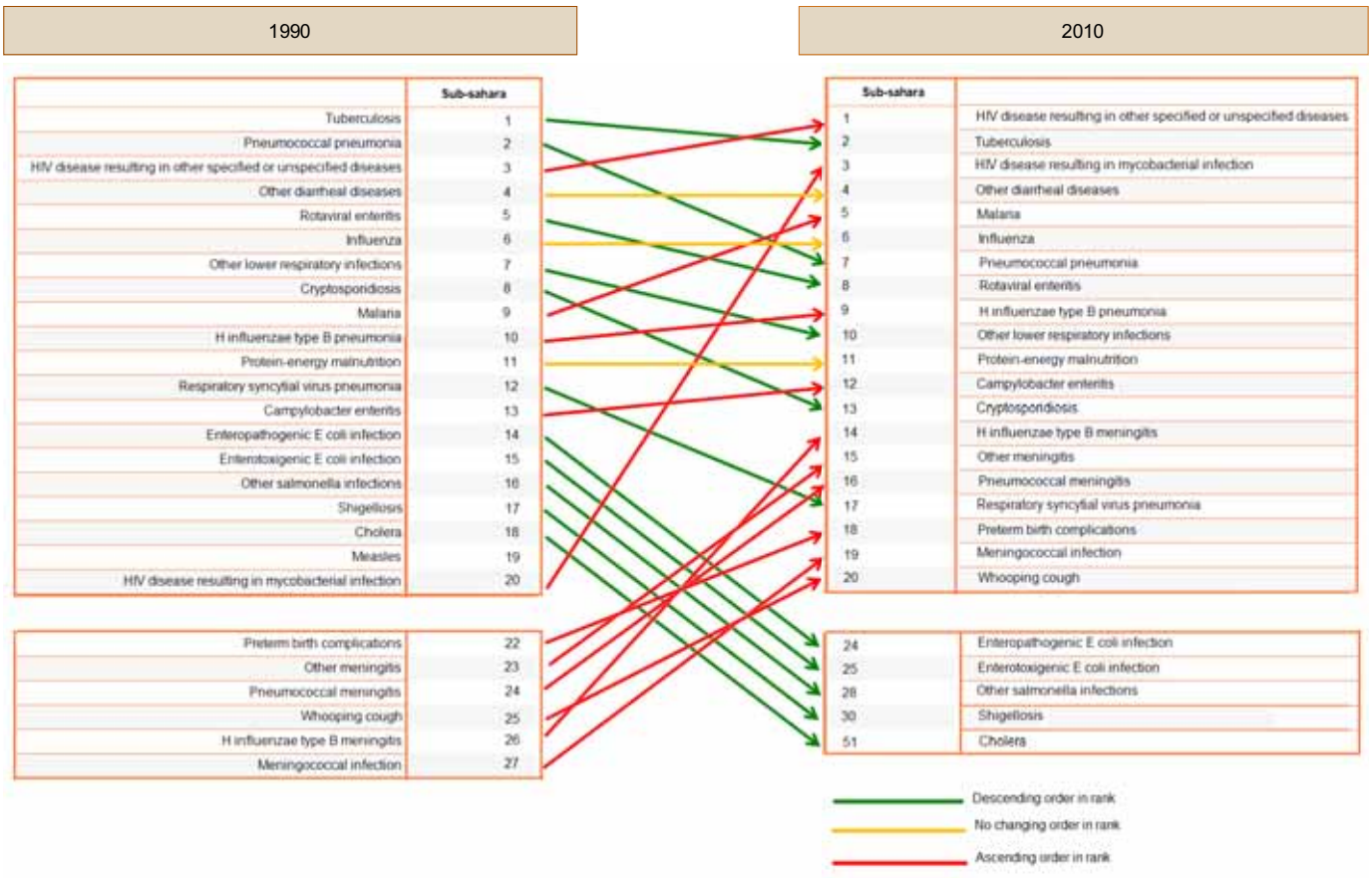
	Sub-sahara	Central	Eastern	Southern	Western
HIV disease resulting in other specified or unspecified diseases	1	3	1	1	1
Tuberculosis	2	4	2	3	3
HIV disease resulting in mycobacterial infection	3	6	3	2	4
Other diarrheal diseases	4	5	3	6	3
Malaria	5	1	...	6	...
Influenza	6	7	3	6	3
Pneumococcal pneumonia	7	7	...	5	2
Rotaviral enteritis	8	5	4	6	3
H influenzae type B pneumonia	9	6	...	6	3
Other lower respiratory infections	10	6	...	6	3
Protein-energy malnutrition	11	2	...	...	...
Campylobacter enteritis	12	7	...	...	4
Cryptosporidiosis	13	7	4	...	4
H influenzae type B meningitis	14	7	...	...	4
Other meningitis	15	7	...	...	4
Pneumococcal meningitis	16	5	...	...	4
Respiratory syncytial virus pneumonia	17	7	...	...	4
Preterm birth complications	18	6	...	...	...
Meningococcal infection	19	...	...	...	4
Whooping cough	20	...	...	...	4

HIV/AIDS and tuberculosis
Diarrhoea, respiratory infections, meningitis
Neglected tropical diseases and malaria
Pneumococcal meningitis
Neonatal disorders
Nutritional deficiencies
Meningococcal infection

... signifies that data is not available

Source: IHME, May 2013

Figure 2.2.19: Ranking of main disorders according to the percentage of death in 1990 and 2010, in sub-Saharan africa



Source: IHME, May 2013

Figure 2.2.20: Percentage of death (%) by main causes in 1990 and 2010 in Southern* sub-Saharan africa

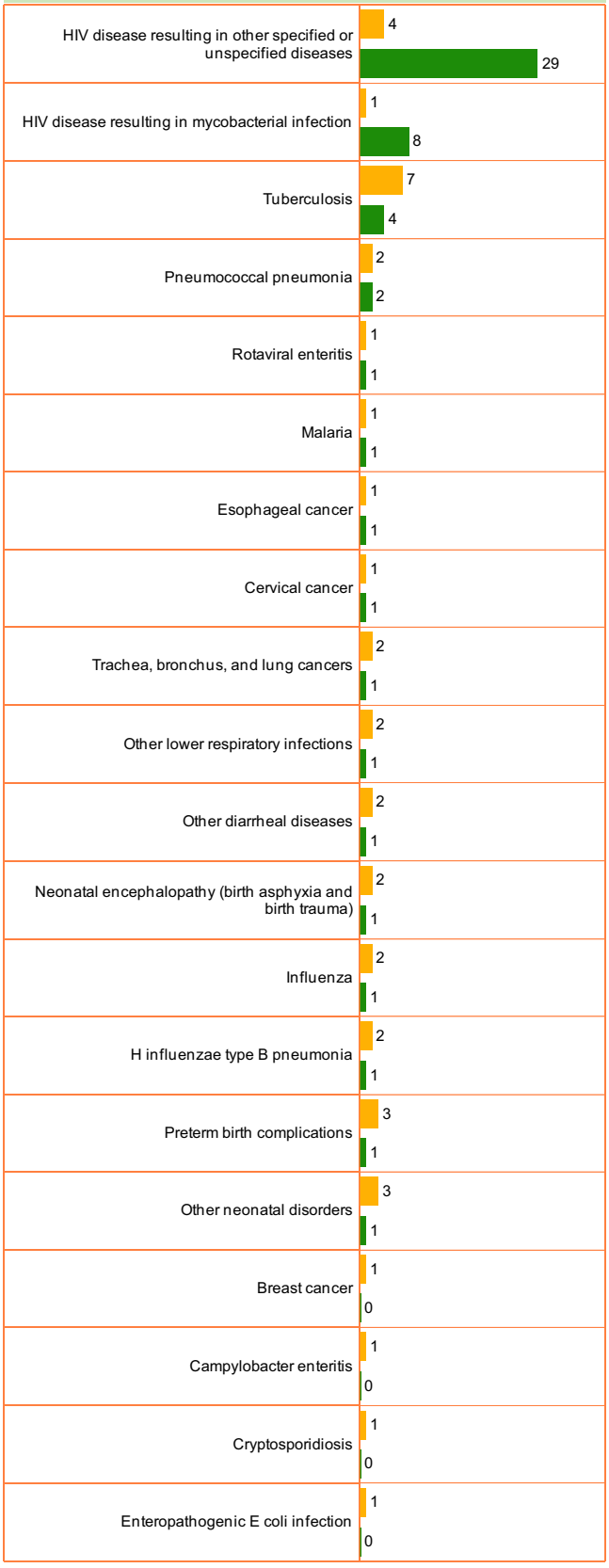
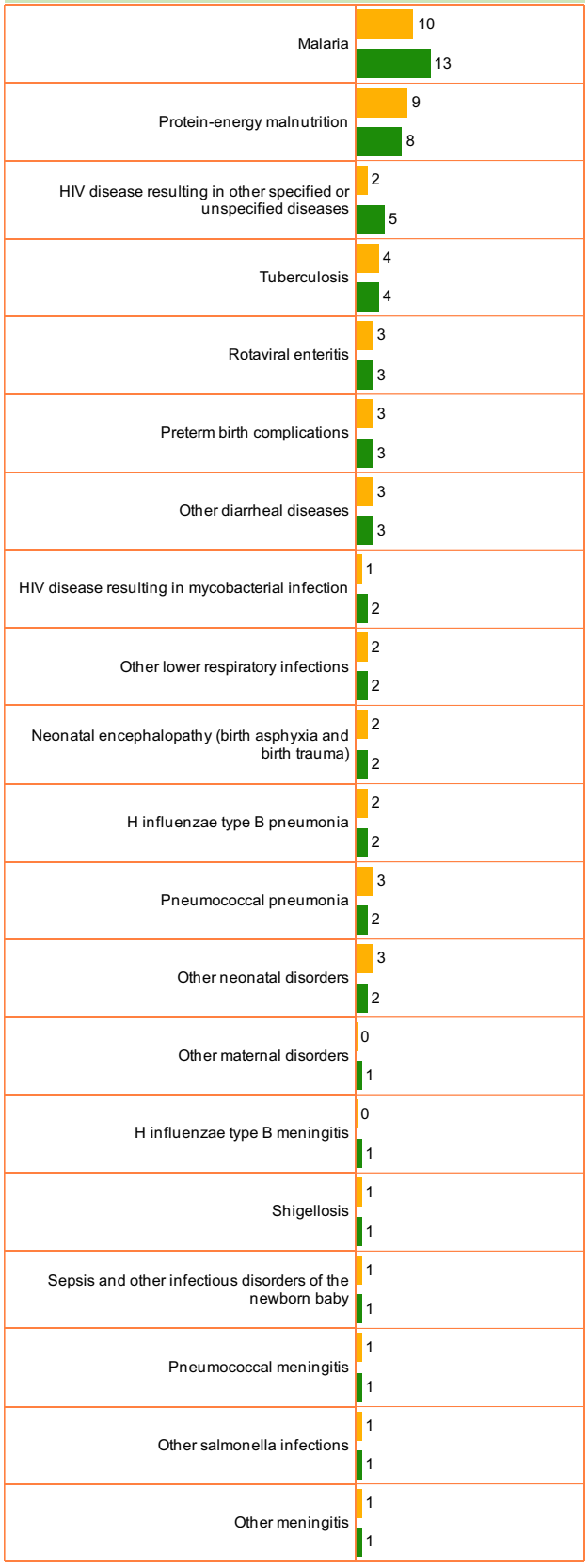


Figure 2.2.21: Percentage of death (%) by main causes in 1990 and 2010, in Central** sub-Saharan africa



* Botswana, Lesotho, Namibia, South Africa, Swaziland, Zimbabwe

** Angola, Central African Republic, Congo, DR Congo, Equatorial Guinea, Gabon

Source: IHME, May 2013

Figure 2.2.22: Percentage of death (%) by main causes in 1990 and 2010, in Western*** sub-Saharan africa

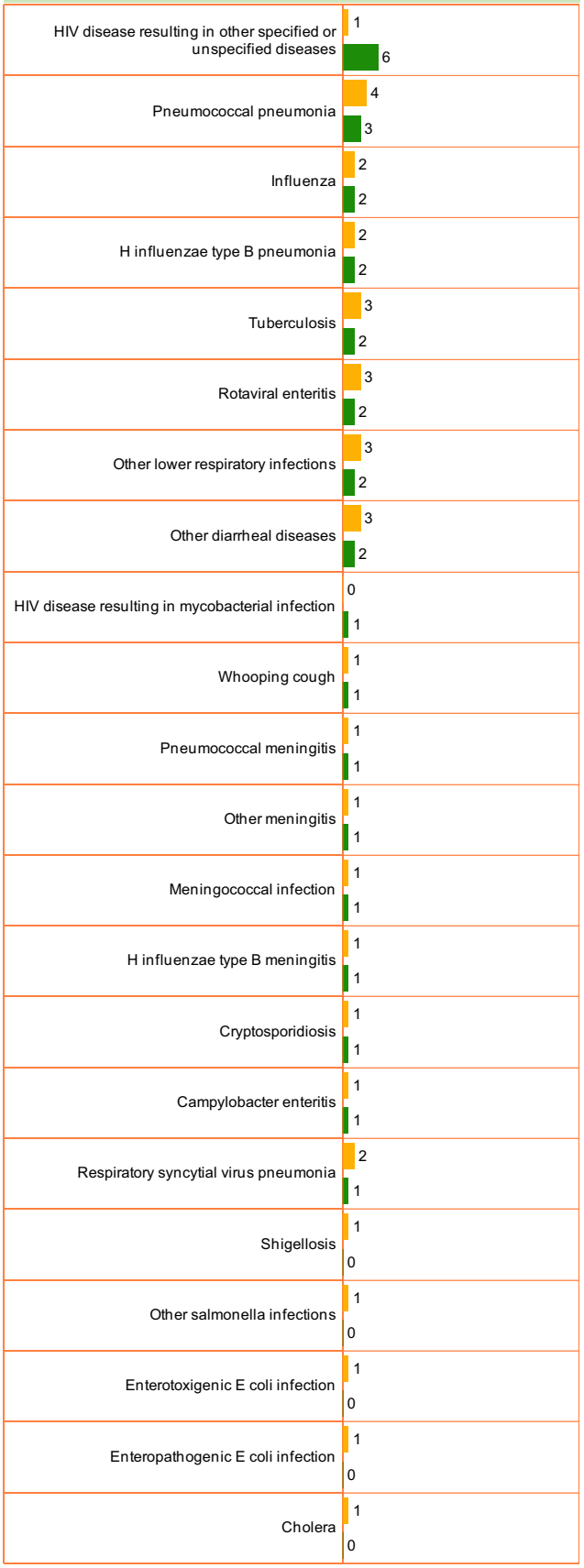
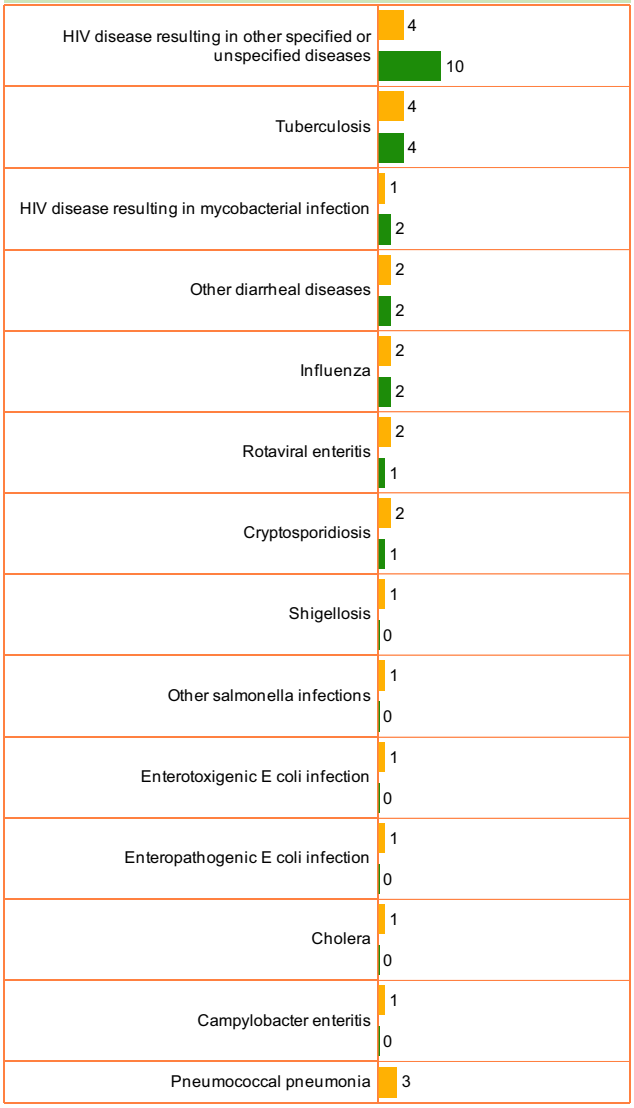


Figure 2.2.23: Percentage of death (%) by main causes in 1990 and 2010, in Eastern**** sub-Saharan africa



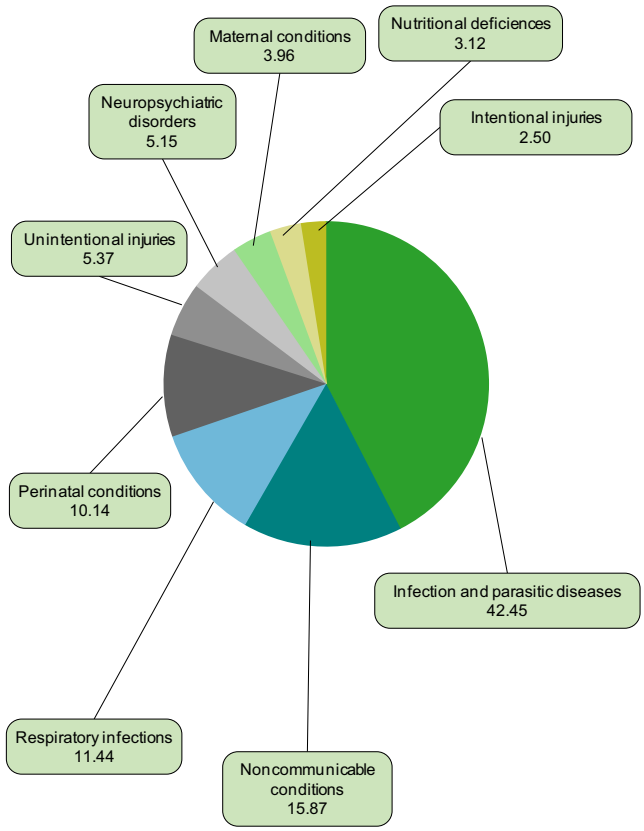
*** Benin, Burkina Faso, Cameroon, Cape verde, Chad, Cote d'Ivoire, Gambia, Ghana, Guinea, Guinea-bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Sao Tome and Principe, Senegal, Sierra Leone, Togo

**** Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Mozambique, Rwanda, Seychelles, Somalia, Sudan, Tanzania, Uganda, Zambia

Source: IHME, May 2013

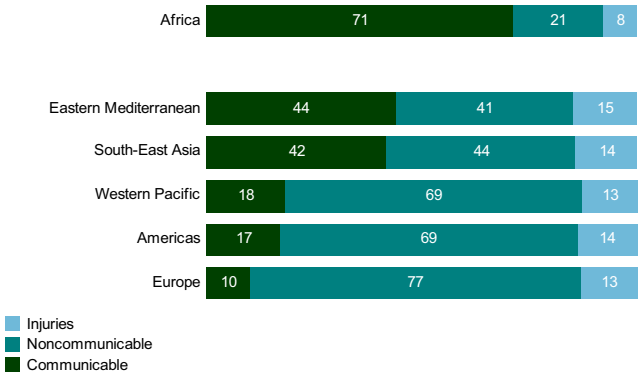
2.3 Burden of disease

Figure 2.3.1: Distribution of burden of diseases as percentage of total DALYs* by group of disorders in the African Region, 2004



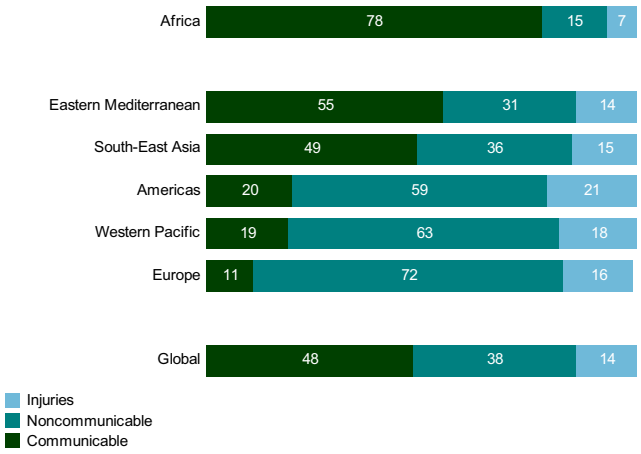
Source: WHO, November 2013.

Figure 2.3.2: Distribution of burden of diseases as percentage of total DALYs by broader causes, by WHO Region, 2004



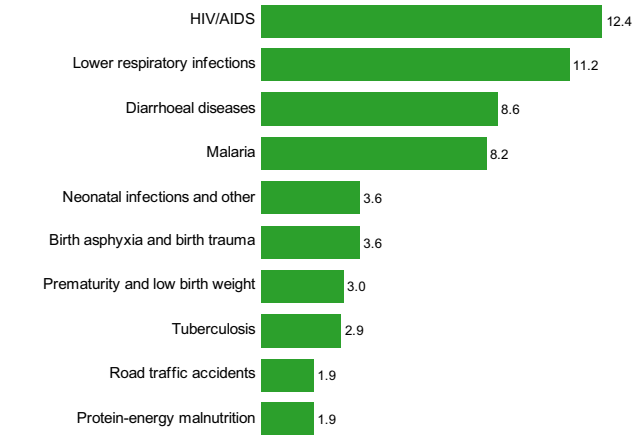
Source: WHO, November 2013.

Figure 2.3.3: Distribution of years of life lost* by broader causes (%), by WHO Region, 2008



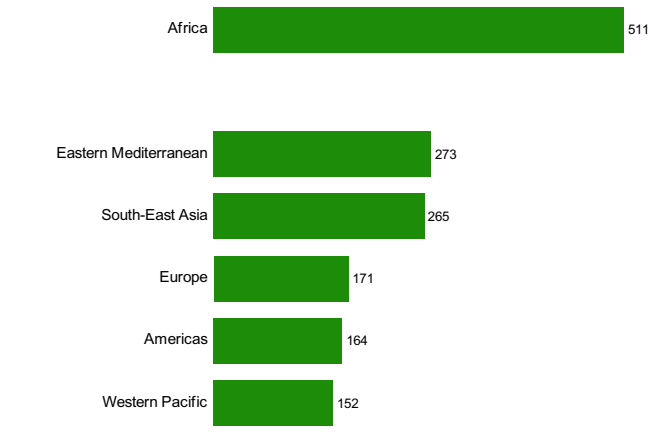
Source: WHO, November 2013.

Figure 2.3.4: Leading causes of burden of diseases shown as percentage of total DALYs in the African Region, 2004



Source: WHO, November 2013.

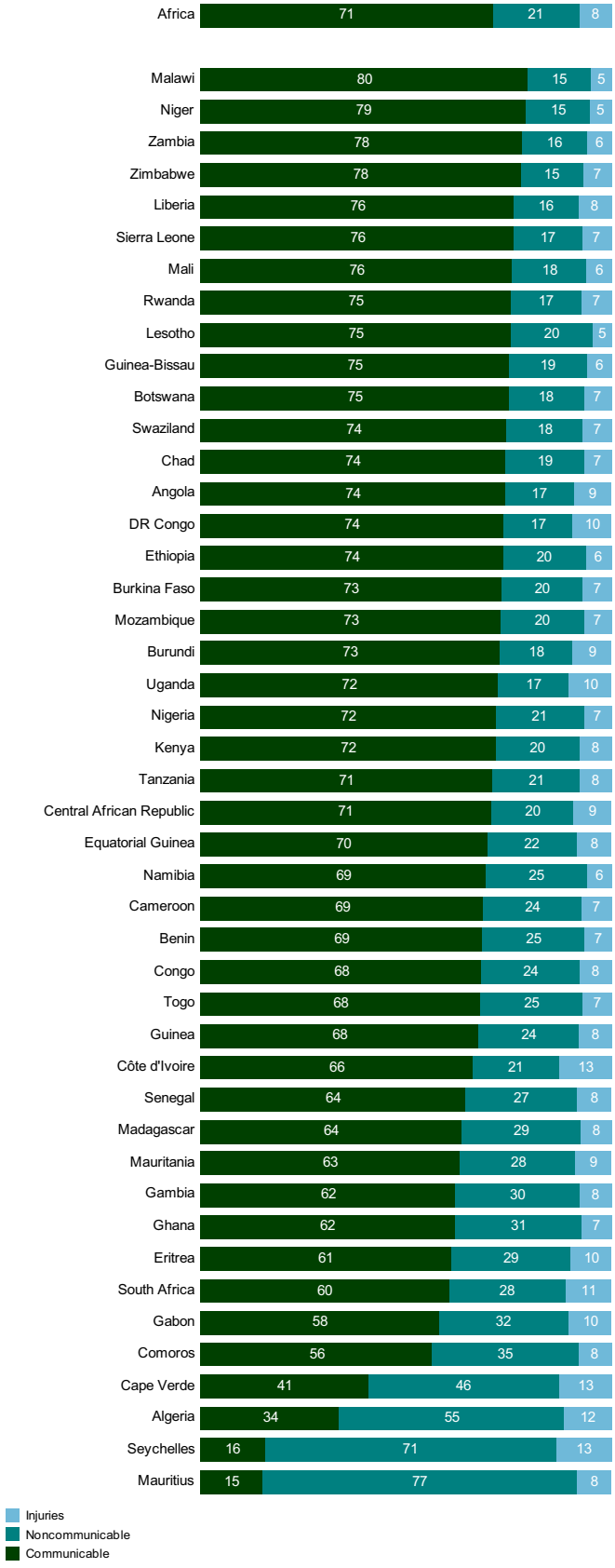
Figure 2.3.5: Total burden of disease in DALYs per 1,000 population by WHO Region, 2004



Source: WHO, November 2013.

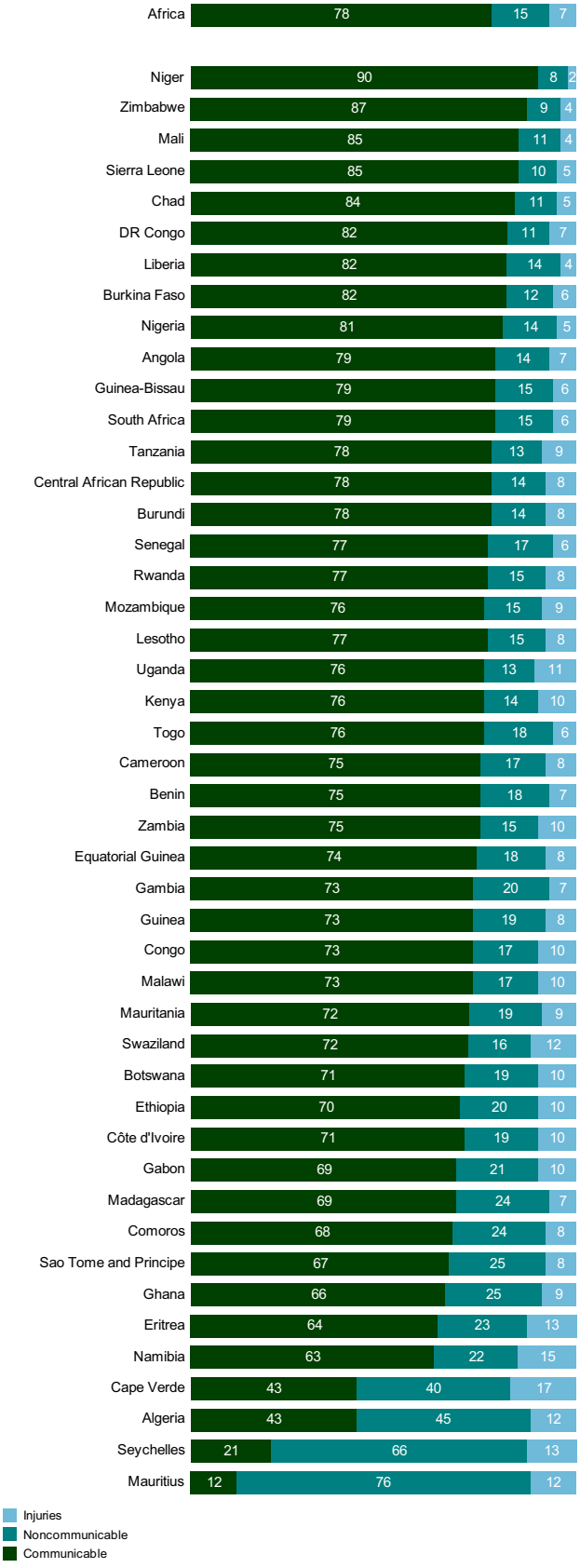
*The disability-adjusted life-year (DALY) provides a consistent and comparative description of the burden of diseases and injuries needed to assess the comparative importance of diseases and injuries in causing premature death, loss of health and disability in different populations. The DALY extends the concept of potential years of life lost due to premature death to include equivalent years of 'healthy' life lost by virtue of being in states of poor health or disability. One DALY can be thought of as one lost year of 'healthy' life, and the burden of disease can be thought of as a measurement of the gap between current health status and an ideal situation where everyone lives into old age, free of disease and disability. WHO. Burden of Diseases Update 2004. Geneva, July 2008.

Figure 2.3.6: Distribution of burden of diseases as percentage of total DALYs by broader causes in the African Region, 2004



Source: WHO, November 2013.

Figure 2.3.7: Distribution of years of life lost by broader causes (%) in the African Region, 2008

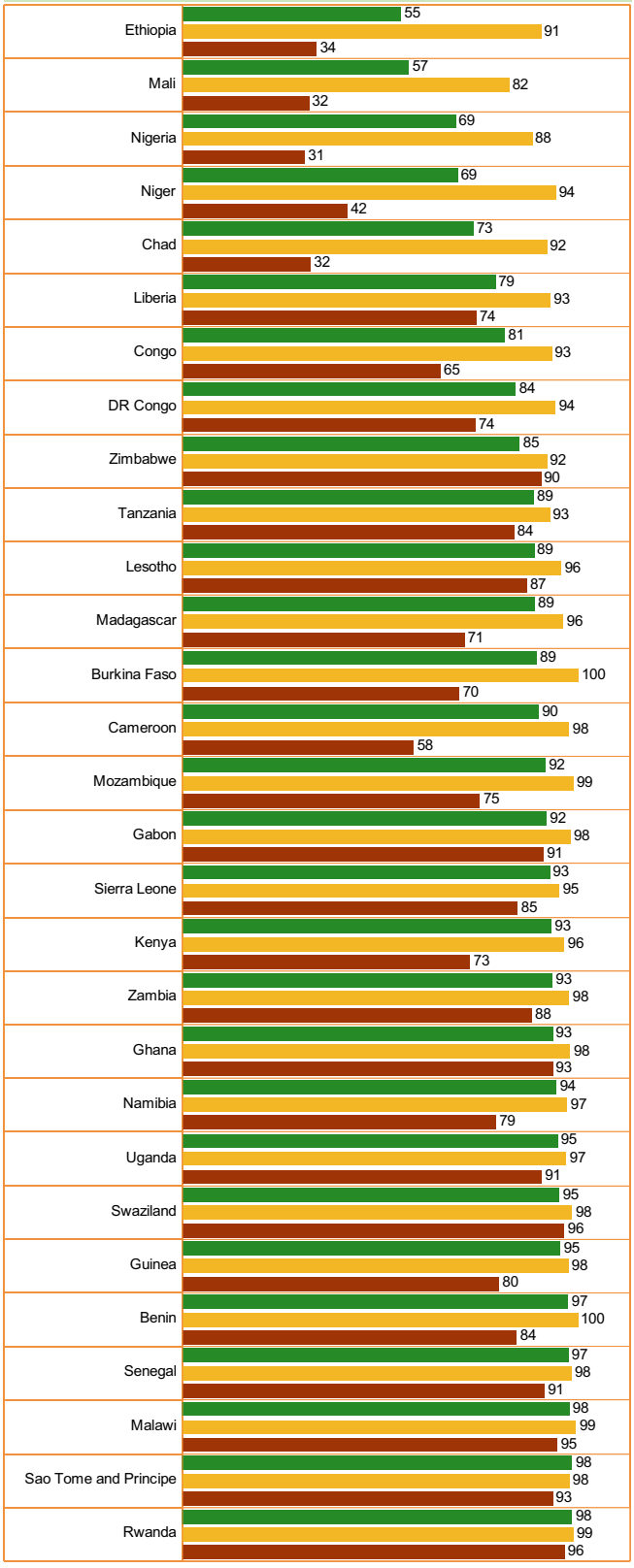


Source: WHO, November 2013.

3. The health system

3.1. Health system outcomes

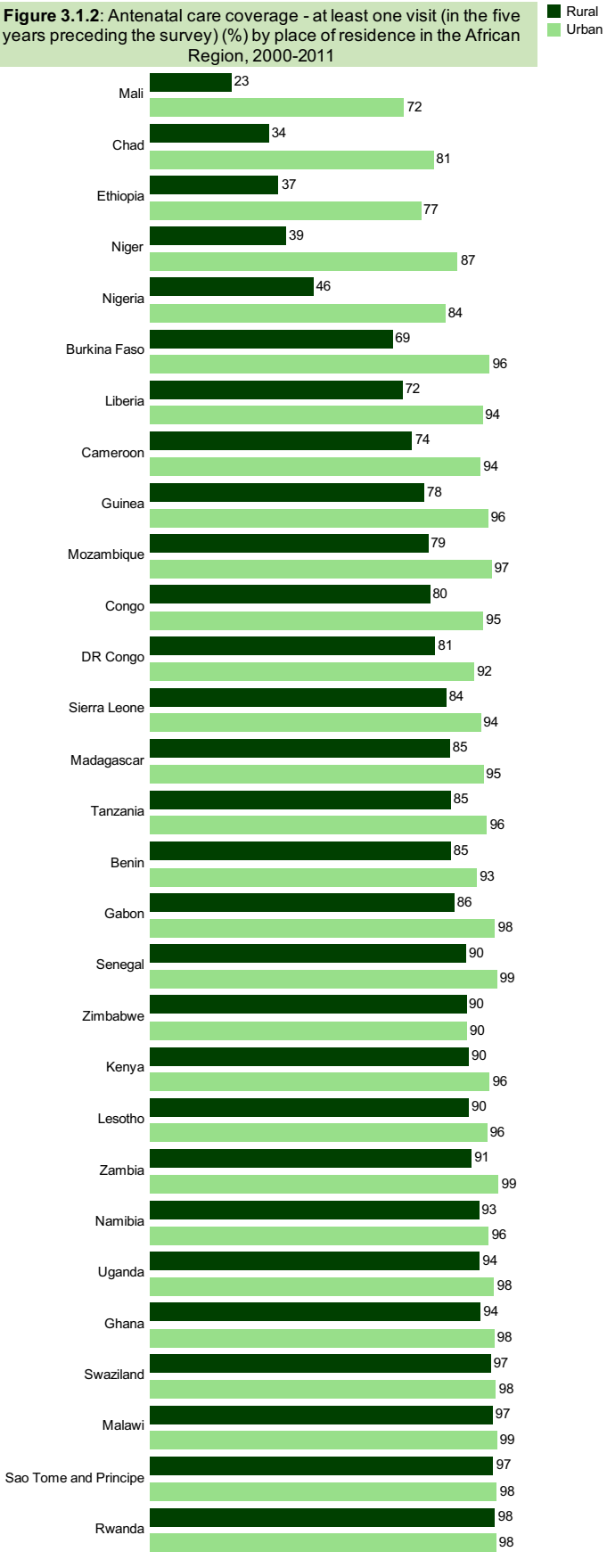
Figure 3.1.1: Antenatal care coverage - at least one visit (in the five years preceding the survey) (%) by educational level in the African Region, 2000-2011



Countries of the African Region without data are not included in the chart.

Source : WHO, August 2013

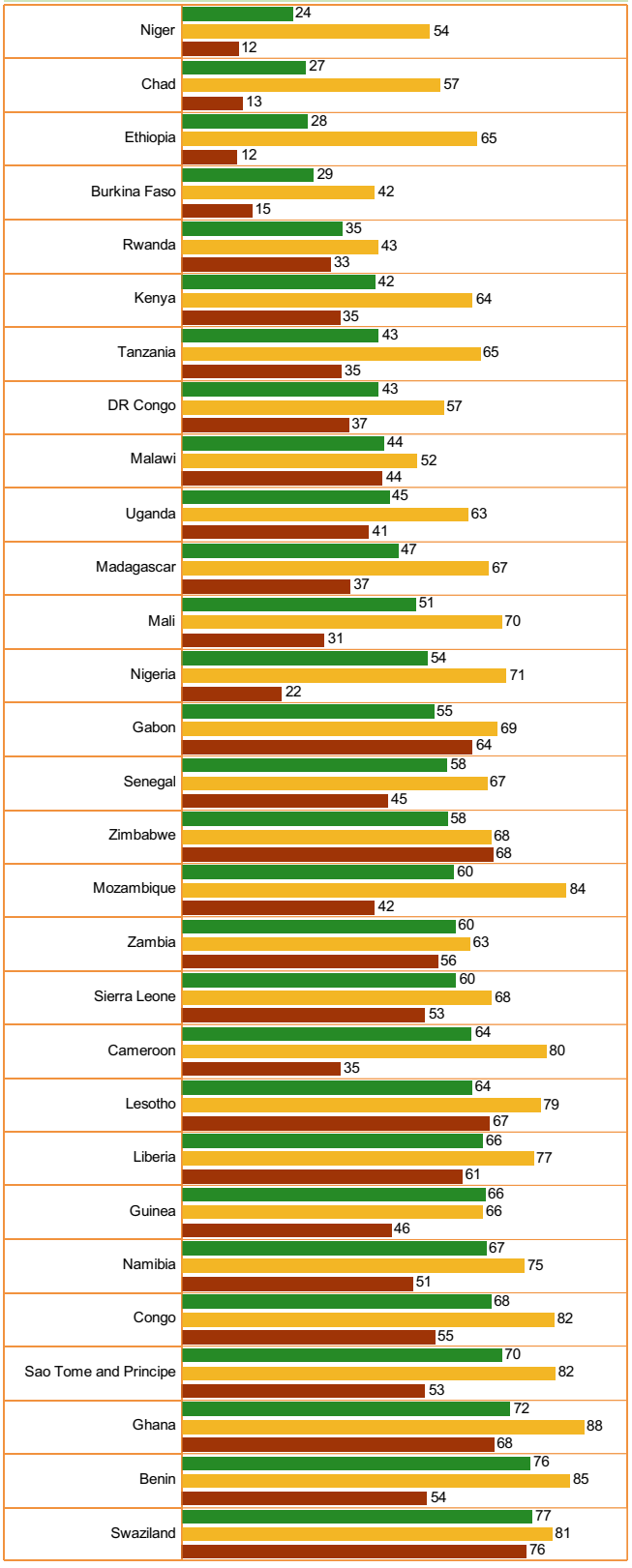
Figure 3.1.2: Antenatal care coverage - at least one visit (in the five years preceding the survey) (%) by place of residence in the African Region, 2000-2011



Countries of the African Region without data are not included in the chart.

Source : WHO, August 2013

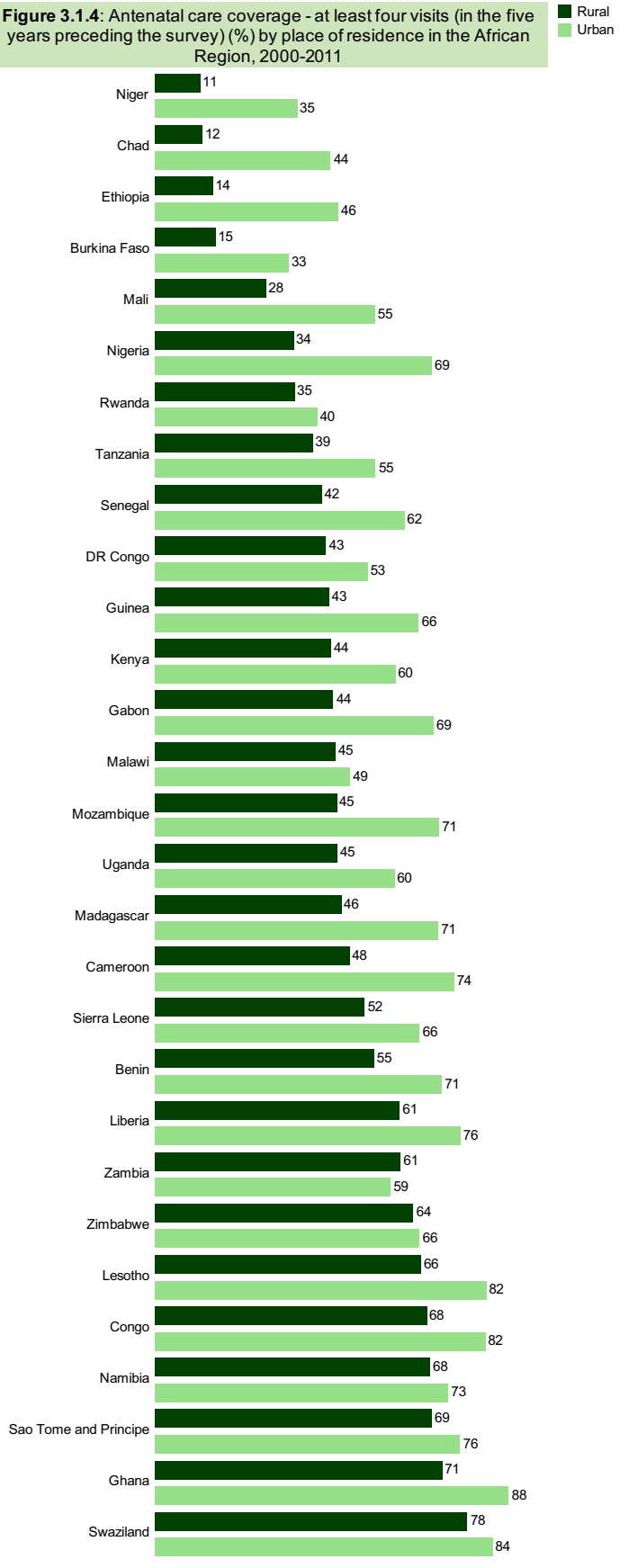
Figure 3.1.3: Antenatal care coverage - at least four visits (in the five years preceding the survey) (%) by educational level in the African Region, 2000-2011



Countries of the African Region without data are not included in the chart.

Source : WHO, August 2013

Figure 3.1.4: Antenatal care coverage - at least four visits (in the five years preceding the survey) (%) by place of residence in the African Region, 2000-2011



Countries of the African Region without data are not included in the chart.

Source : WHO, August 2013

Figure 3.1.5: Antenatal care coverage - at least one visit (in the five years preceding the survey) (%) by wealth quintile in the African Region, 2000-2011

	Q1 (Poorest)	Q2	Q3	Q4	Q5 (Richest)
Chad	9	30	43	54	77
Mali	19	23	25	41	80
Nigeria	23	40	64	82	94
Ethiopia	25	34	38	46	77
Niger	36	35	37	43	83
Burkina Faso	56	62	73	81	96
Cameroon	65	75	90	96	97
Mozambique	67	83	86	97	98
Liberia	67	69	78	92	96
Guinea	68	74	84	93	98
Madagascar	73	83	89	94	97
Benin	74	84	89	96	99
Congo	75	82	88	95	98
DR Congo	78	79	87	89	96
Sierra Leone	82	83	86	89	96
Senegal	82	93	95	98	99
Kenya	84	93	93	93	96
Tanzania	84	85	86	90	95
Gabon	85	96	98	98	98
Lesotho	87	89	93	93	96
Zimbabwe	88	88	89	91	94
Zambia	90	90	93	99	99
Namibia	90	93	96	97	97
Ghana	93	93	96	98	99
Uganda	93	93	94	94	97
Swaziland	95	95	98	99	99
Malawi	96	97	97	98	99
Sao Tome and Principe	97	97	100	98	98
Rwanda	97	97	99	99	99

Countries of the African Region without data are not included in the chart.

Source : WHO, August 2013

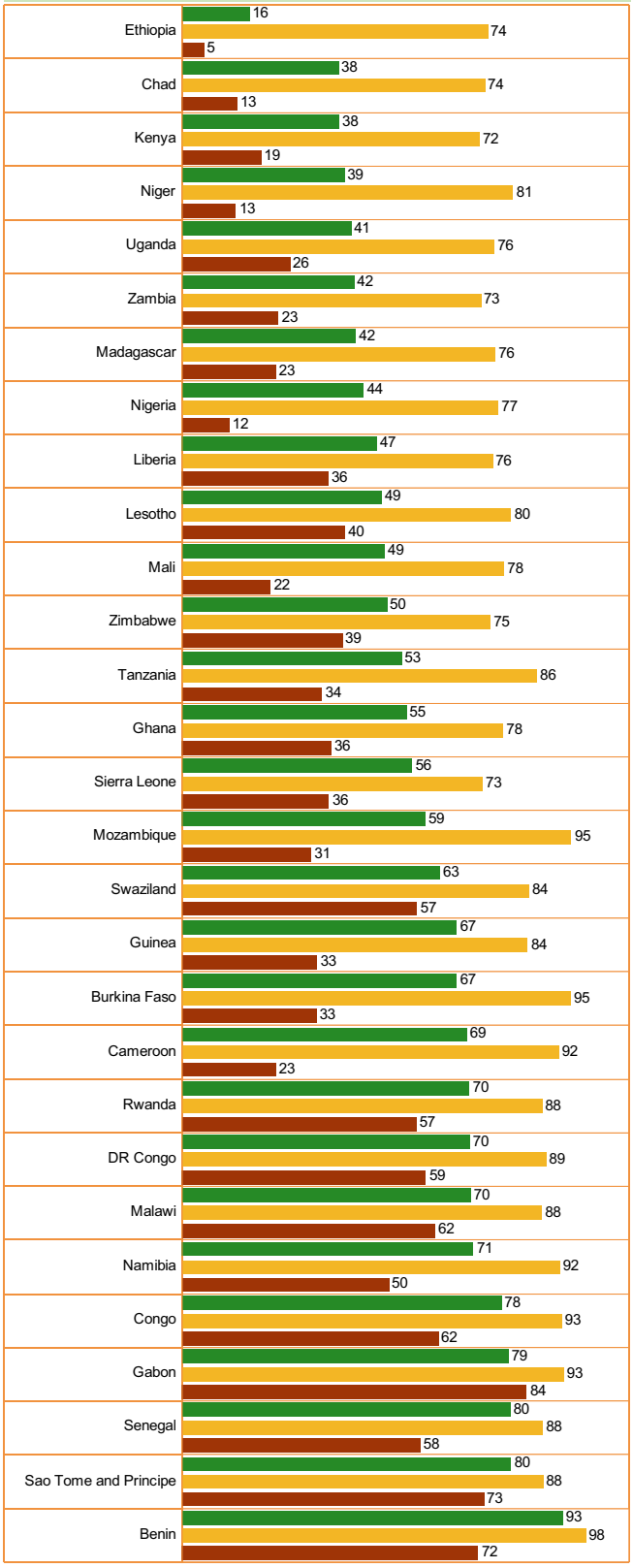
Figure 3.1.6: Antenatal care coverage - at least four visits (in the five years preceding the survey) (%) by wealth quintile in the African Region, 2000-2011

	Q1 (Poorest)	Q2	Q3	Q4	Q5 (Richest)
Chad	2	12	12	21	44
Ethiopia	8	12	14	21	46
Niger	9	10	9	13	35
Burkina Faso	12	12	16	19	32
Nigeria	16	29	48	64	81
Mali	23	27	28	36	64
Senegal	32	41	51	60	69
Rwanda	34	35	33	34	43
Madagascar	35	42	48	55	75
Kenya	36	39	41	55	63
Mozambique	37	45	52	64	76
Guinea	37	39	47	58	70
Tanzania	37	35	40	47	59
Cameroon	39	47	63	75	86
Benin	40	50	58	71	87
Malawi	41	45	46	45	51
DR Congo	41	44	45	45	63
Gabon	42	57	66	72	81
Uganda	44	42	42	45	64
Sierra Leone	49	52	56	57	70
Liberia	55	57	68	76	78
Sao Tome and Principe	58	66	73	77	91
Lesotho	58	65	68	75	85
Zambia	59	61	62	58	62
Congo	60	71	77	81	90
Zimbabwe	60	63	64	65	73
Ghana	63	73	78	89	94
Namibia	64	68	70	74	77
Swaziland	72	77	78	83	85

Countries of the African Region without data are not included in the chart.

Source : WHO, August 2013

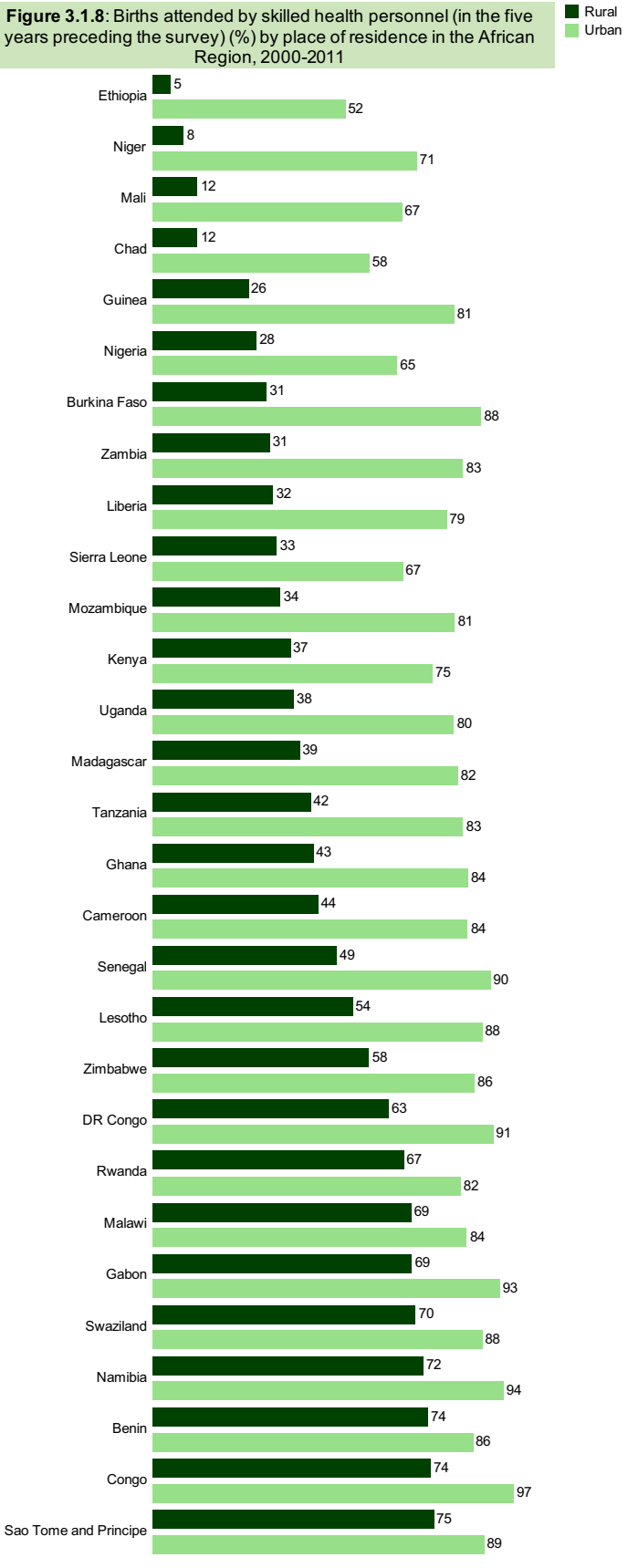
Figure 3.1.7: Births attended by skilled health personnel (in the five years preceding the survey) (%) by educational level in the African Region, 2000-2011



Countries of the African Region without data are not included in the chart.

Source : WHO, August 2013

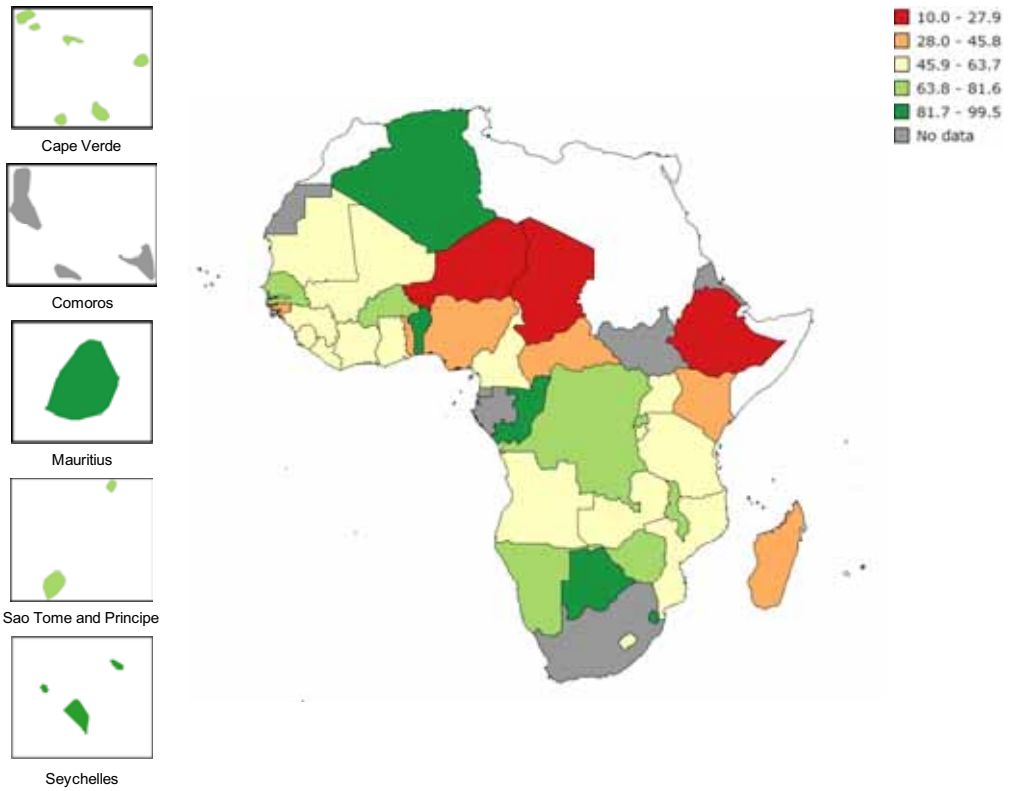
Figure 3.1.8: Births attended by skilled health personnel (in the five years preceding the survey) (%) by place of residence in the African Region, 2000-2011



Countries of the African Region without data are not included in the chart.

Source : WHO, August 2013

Figure 3.1.9: Births attended by skilled health personnel (%) in the African Region, 2006-2012



Source : WHO, 2013

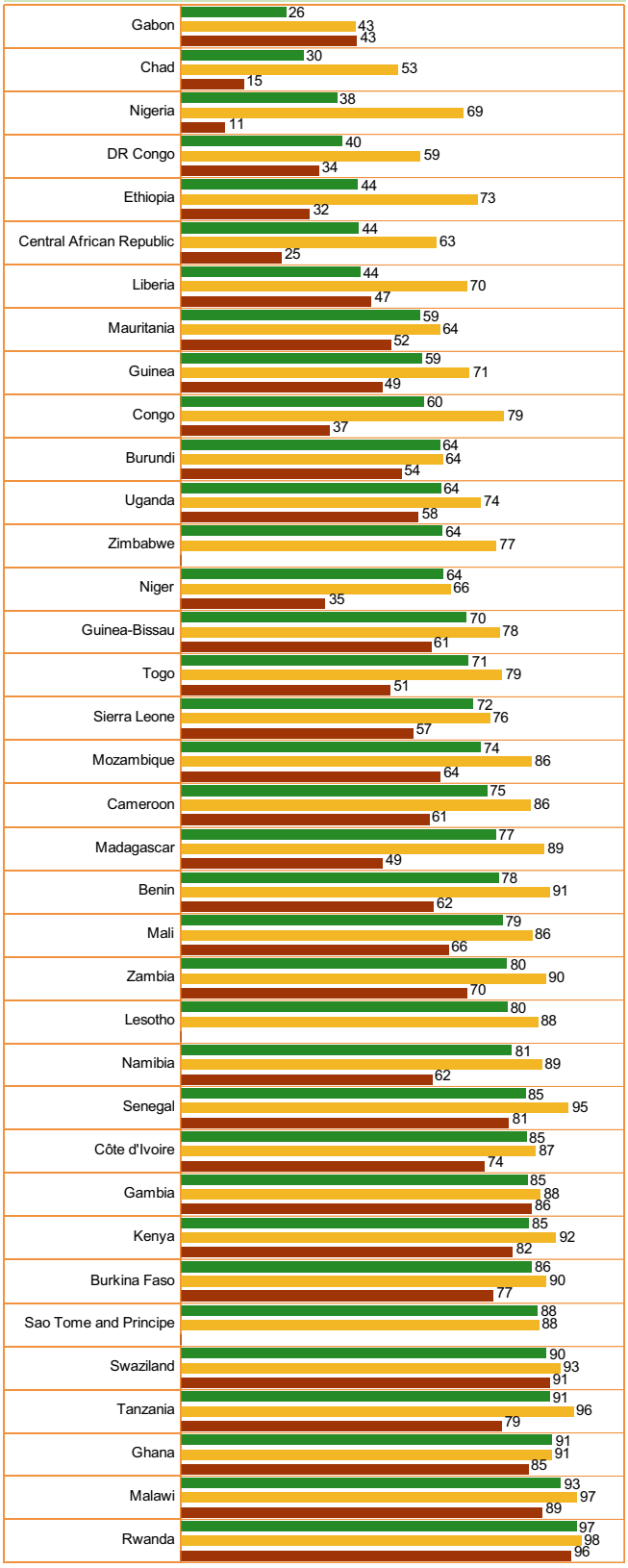
Figure 3.1.10: Births attended by skilled health personnel (in the five years preceding the survey) (%) by wealth quintile in the African Region, 2000-2011

	Q1 (Poorest)	Q2	Q3	Q4	Q5 (Richest)
Ethiopia	2	4	4	8	46
Chad	4	12	14	20	55
Niger	5	8	8	13	59
Nigeria	8	18	38	63	86
Mali	9	12	16	29	75
Guinea	15	20	34	55	87
Burkina Faso	19	24	32	45	84
Kenya	20	31	42	53	81
Madagascar	22	28	43	60	90
Ghana	24	50	65	82	95
Mozambique	25	33	43	68	89
Liberia	26	32	43	69	81
Zambia	27	28	36	71	91
Sierra Leone	28	35	39	49	71
Uganda	29	32	35	50	77
Cameroon	29	45	73	87	94
Senegal	30	51	74	88	95
Tanzania	33	36	47	63	90
Lesotho	35	50	61	79	90
Zimbabwe	48	56	64	81	91
Swaziland	51	66	78	86	92
Benin	56	70	80	91	97
DR Congo	59	62	73	85	98
Namibia	60	73	86	94	98
Rwanda	61	64	67	73	86
Malawi	63	65	68	77	89
Congo	66	78	92	97	98
Gabon	67	86	92	94	97
Sao Tome and Principe	74	73	85	87	93

Countries of the African Region without data are not included in the chart.

Source : WHO, August 2013

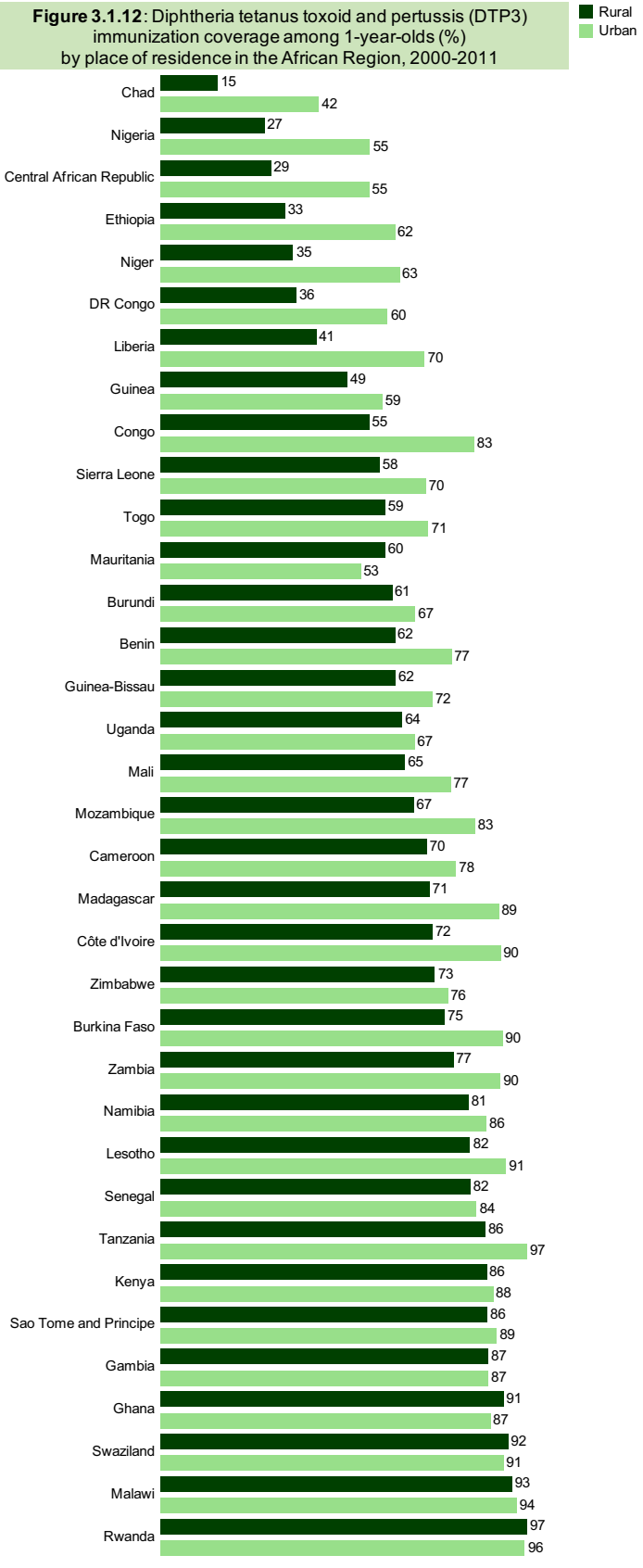
Figure 3.1.11: Diphtheria tetanus toxoid and pertussis (DTP3) immunization coverage among 1-year-olds (%) by educational level in the African Region, 2000-2011



Countries of the African Region without data are not included in the chart.

Source : WHO, August 2013

Figure 3.1.12: Diphtheria tetanus toxoid and pertussis (DTP3) immunization coverage among 1-year-olds (%) by place of residence in the African Region, 2000-2011



Countries of the African Region without data are not included in the chart.

Source : WHO, August 2013

Figure 3.1.13: Diphtheria tetanus toxoid and pertussis (DTP3) immunization coverage among 1-year-olds (%) by wealth quintile in the African Region, 2000-2011

	Q1 (Poorest)	Q2	Q3	Q4	Q5 (Richest)
Chad	5	14	17	23	43
Nigeria	9	21	33	53	77
Gabon	18	32	44	41	49
Central African Republic	22	28	38	49	63
Ethiopia	26	29	31	43	64
DR Congo	28	35	44	53	74
Liberia	30	38	56	66	72
Niger	31	36	30	39	63
Guinea	39	46	56	63	61
Congo	43	62	75	82	91
Benin	50	61	69	73	87
Madagascar	54	68	77	86	93
Mauritania	54	59	59	52	61
Sierra Leone	56	59	62	60	73
Burundi	57	63	59	66	62
Mozambique	57	65	76	81	86
Guinea-Bissau	57	62	64	68	78
Togo	58	56	61	71	75
Côte d'Ivoire	62	74	82	88	96
Cameroon	63	75	72	79	83
Uganda	64	59	67	66	65
Mali	65	62	69	67	78
Zimbabwe	67	71	71	79	81
Burkina Faso	73	71	79	79	93
Lesotho	73	83	87	91	88
Senegal	75	85	85	83	88
Namibia	75	84	79	90	94
Kenya	78	87	91	89	90
Zambia	78	75	78	86	95
Tanzania	84	84	87	91	97
Sao Tome and Principe	86	84	88	88	91
Ghana	89	88	82	96	93
Gambia	89	85	84	86	90
Malawi	91	94	92	95	94
Swaziland	92	90	94	94	89
Rwanda	96	96	97	98	99

Countries of the African Region without data are not included in the chart.

Source : WHO, August 2013

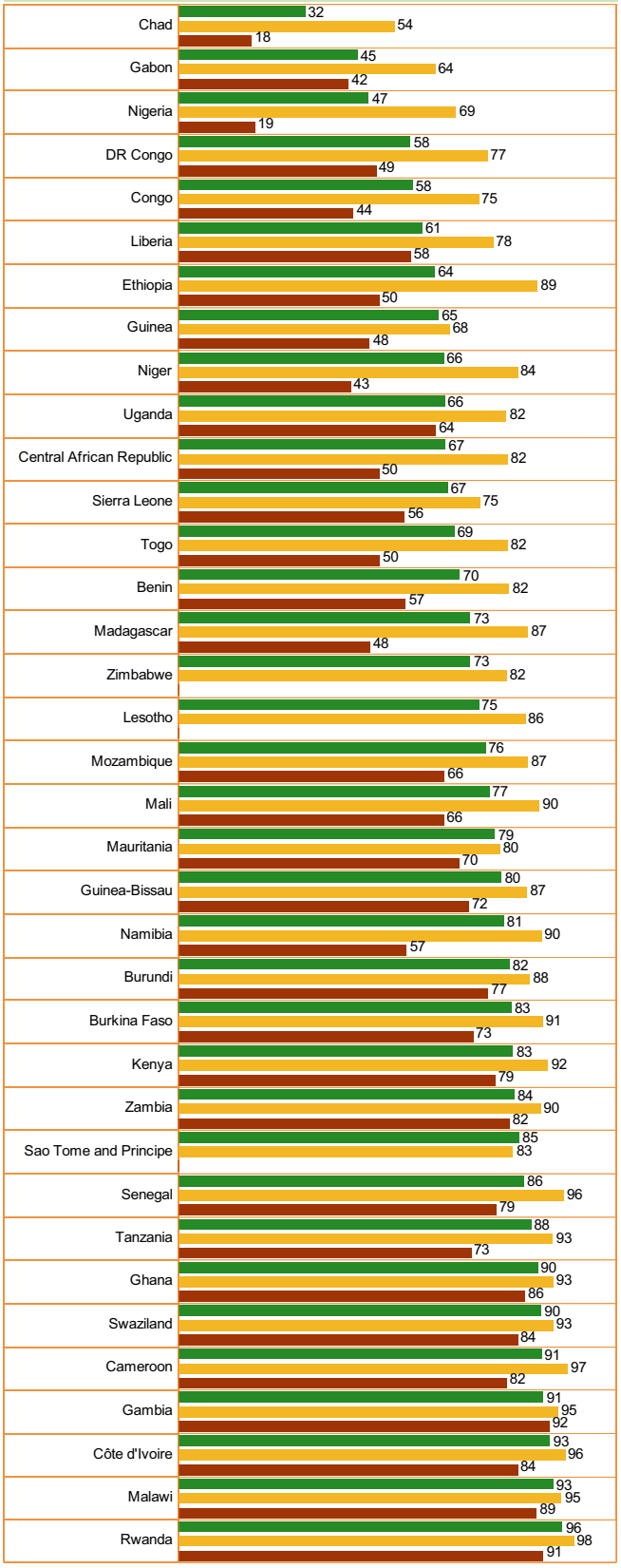
Figure 3.1.14: Measles (MCV) immunization coverage among 1-year-olds (%) by wealth quintile in the African Region, 2000-2011

	Q1 (Poorest)	Q2	Q3	Q4	Q5 (Richest)
Chad	8	16	28	24	38
Nigeria	17	28	41	58	75
Niger	32	44	42	45	74
Gabon	34	53	57	63	71
Guinea	42	44	56	57	57
Liberia	45	55	64	74	86
Ethiopia	45	52	52	56	80
Benin	48	57	64	63	76
Congo	48	62	67	76	84
Central African Republic	51	54	62	72	75
Madagascar	51	62	73	84	90
DR Congo	51	56	60	67	85
Sierra Leone	56	62	58	57	68
Togo	57	56	61	70	72
Mozambique	62	66	78	81	90
Uganda	66	65	67	72	73
Mauritania	67	82	80	75	79
Mali	67	65	66	67	78
Lesotho	68	77	83	84	92
Namibia	70	90	80	88	95
Guinea-Bissau	70	72	71	79	90
Burkina Faso	72	70	75	77	84
Côte d'Ivoire	74	85	93	96	99
Senegal	74	82	83	85	89
Kenya	76	81	85	90	94
Zimbabwe	78	75	74	87	84
Sao Tome and Principe	79	82	89	88	84
Tanzania	80	82	80	91	94
Burundi	80	83	77	81	81
Cameroon	83	90	88	93	97
Ghana	87	86	90	95	95
Zambia	88	80	82	85	94
Swaziland	89	89	93	94	93
Malawi	90	92	91	96	96
Rwanda	94	93	95	97	97
Gambia	95	91	91	93	91

Countries of the African Region without data are not included in the chart.

Source : WHO, August 2013

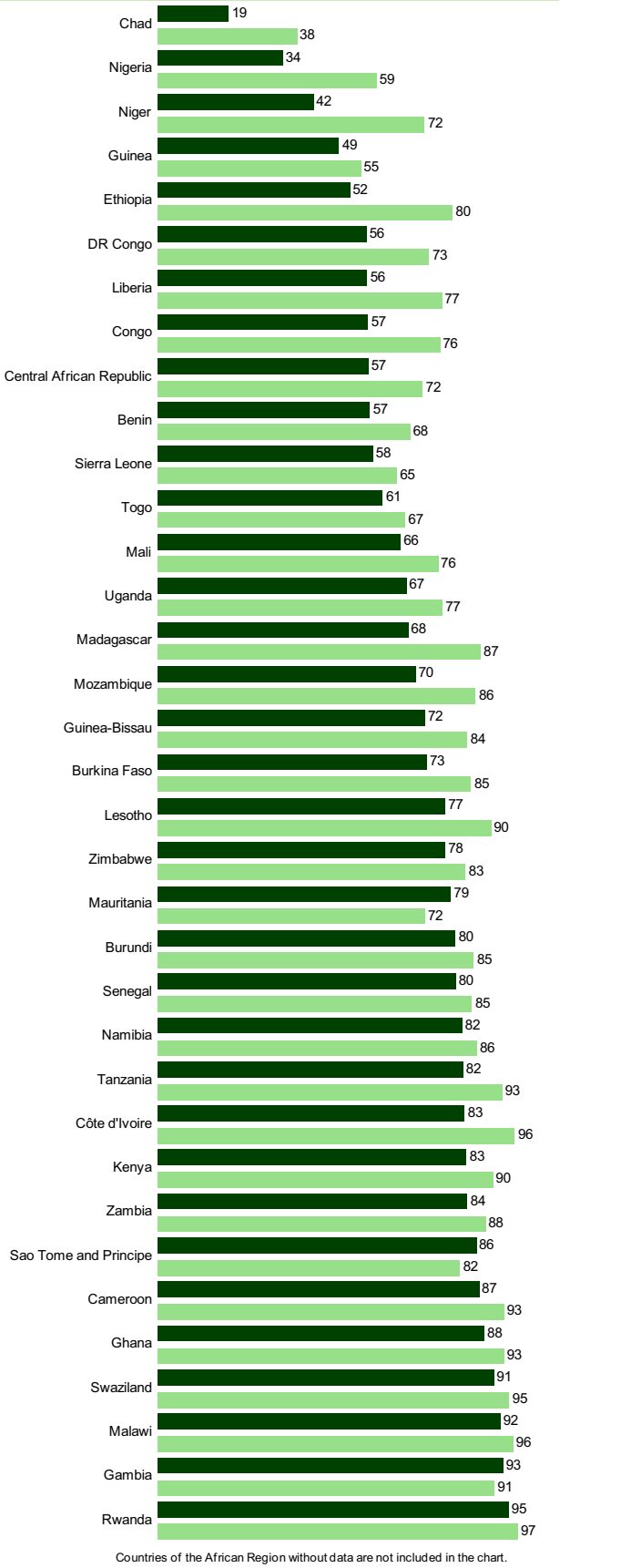
Figure 3.1.15: Measles (MCV) immunization coverage among 1-year-olds (%) by educational level in the African Region, 2000-2011



Countries of the African Region without data are not included in the chart.

Source : WHO, August 2013

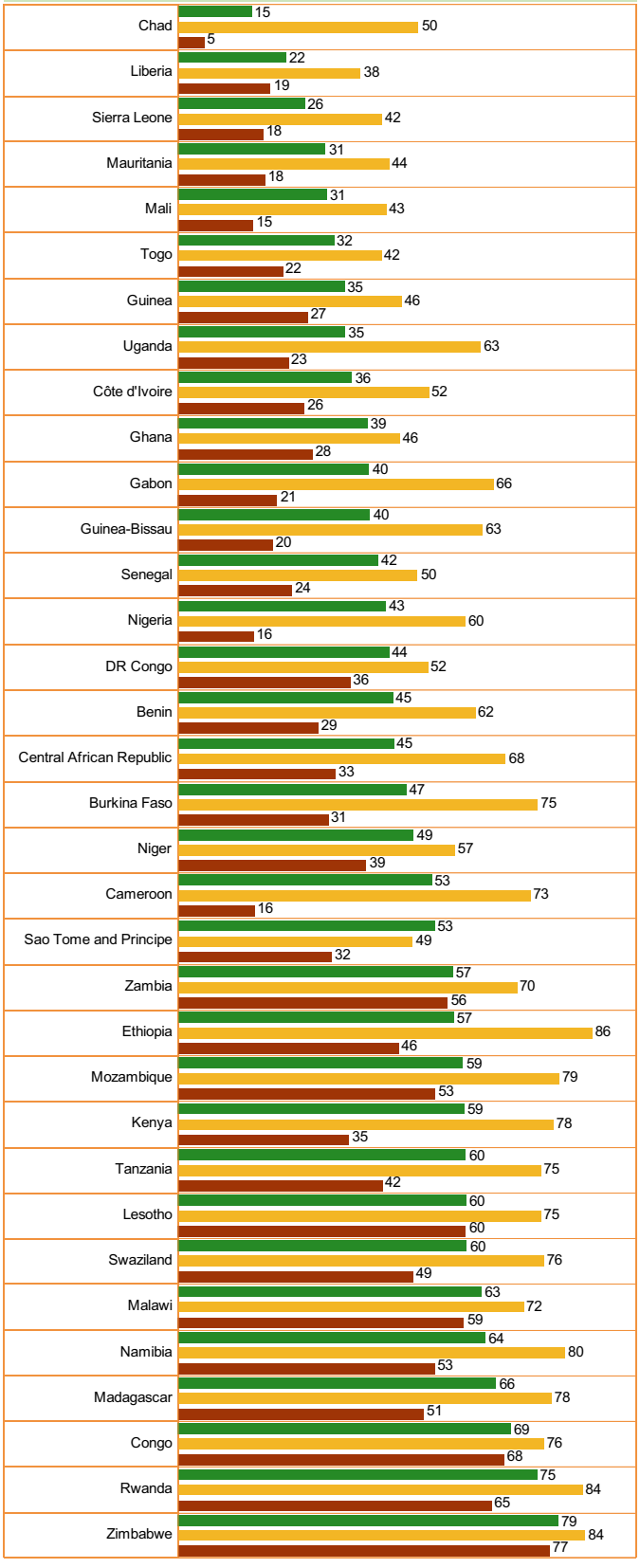
Figure 3.1.16: Measles (MCV) immunization coverage among 1-year-olds (%) by place of residence in the African Region, 2000-2011



Countries of the African Region without data are not included in the chart.

Source : WHO, August 2013

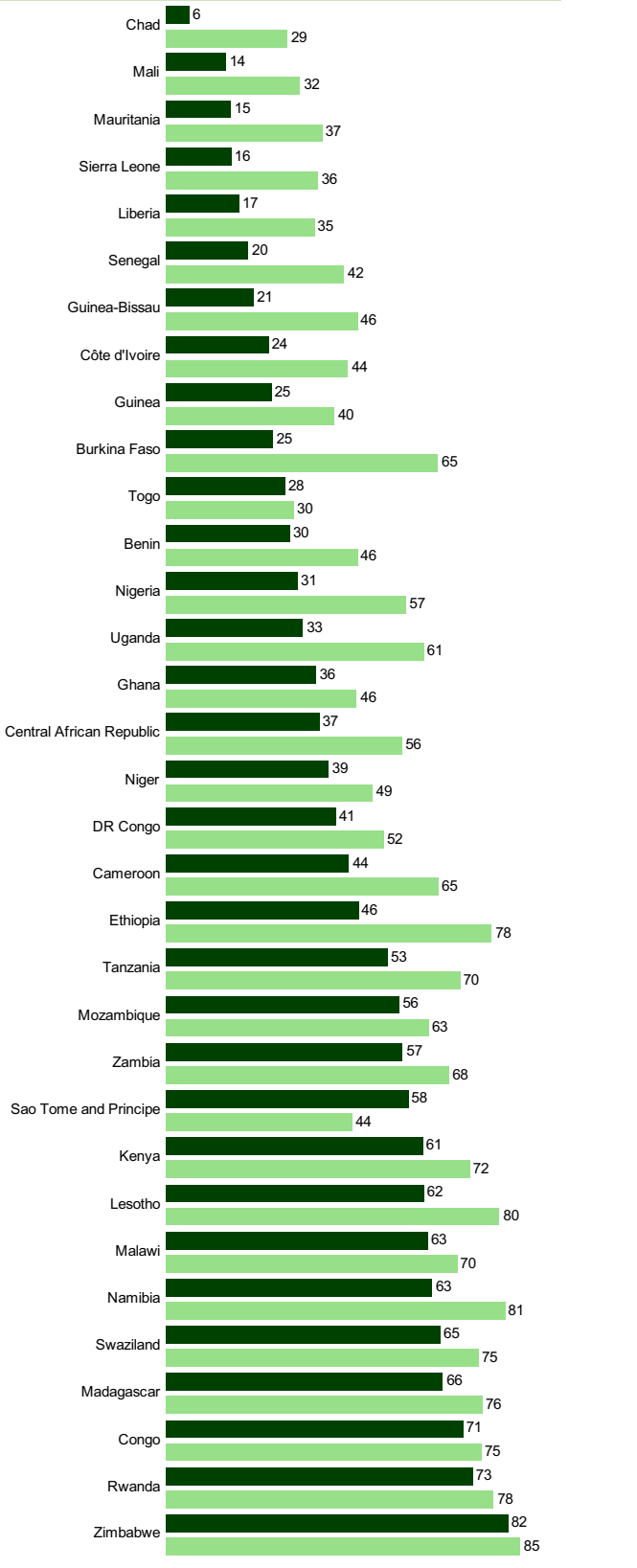
Figure 3.1.17: Family planning needs satisfied (%) by educational level in the African Region, 2000-2011



Countries of the African Region without data are not included in the chart.

Source : WHO, August 2013

Figure 3.1.18: Family planning needs satisfied (%) by place of residence in the African Region, 2000-2011



Countries of the African Region without data are not included in the chart.

Source : WHO, August 2013

Figure 3.1.19: Family planning needs satisfied (%) by wealth quintile in the African Region, 2000-2011

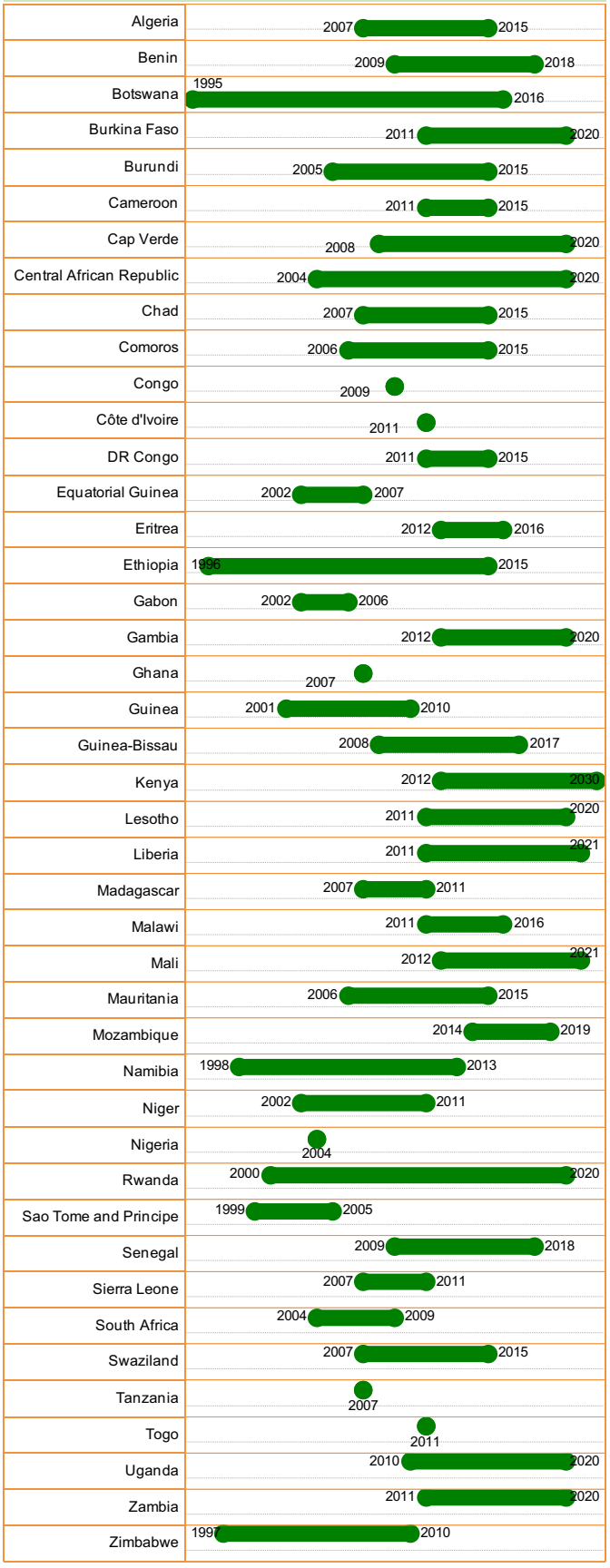
	Q1 (Poorest)	Q2	Q3	Q4	Q5 (Richest)
Chad	0	2	8	10	30
Mauritania	7	15	21	34	42
Liberia	10	13	27	29	39
Mali	11	14	13	22	36
Senegal	14	20	30	37	47
Sierra Leone	14	11	14	27	43
Nigeria	15	21	34	48	66
Uganda	18	25	31	41	64
Benin	20	28	30	38	56
Guinea-Bissau	21	17	20	36	53
Togo	22	27	30	31	36
Guinea	22	24	25	33	43
Burkina Faso	23	21	26	34	68
Côte d'Ivoire	23	26	24	40	49
Cameroon	28	39	51	66	74
Ghana	28	32	36	45	57
Central African Republic	28	35	42	51	64
Ethiopia	30	46	46	54	78
Kenya	35	55	69	74	74
Gabon	36	47	56	58	65
DR Congo	37	39	40	47	62
Niger	41	35	33	43	50
Tanzania	43	49	50	64	76
Sao Tome and Principe	45	48	46	56	58
Lesotho	45	56	68	71	83
Madagascar	46	57	69	75	78
Namibia	50	67	65	80	87
Mozambique	53	54	59	52	69
Swaziland	54	63	69	68	79
Malawi	57	61	63	66	71
Zambia	60	52	51	64	74
Rwanda	65	70	75	79	80
Congo	67	67	74	77	80
Zimbabwe	79	77	83	85	88

Countries of the African Region without data are not included in the chart.

Source : WHO, August 2013

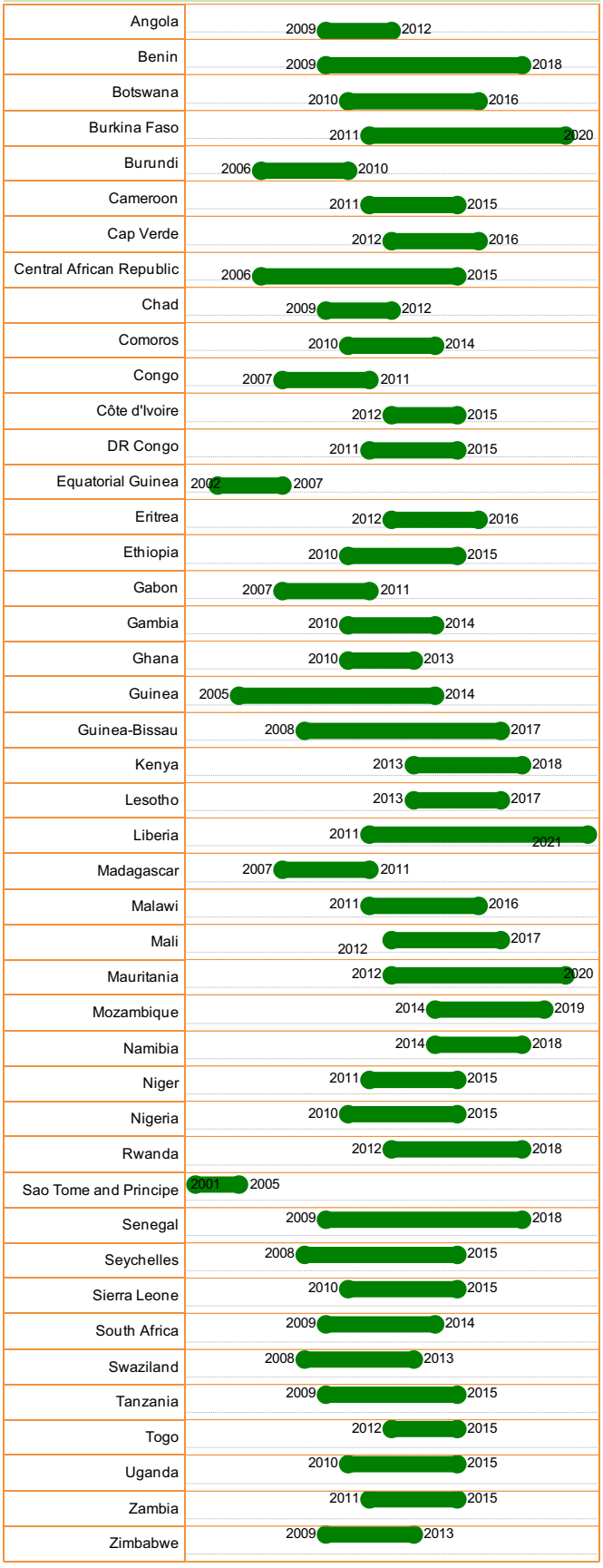
3.2. Leadership and governance

Figure 3.2.1. Existence of national health policies, in the African Region, by year, 2013



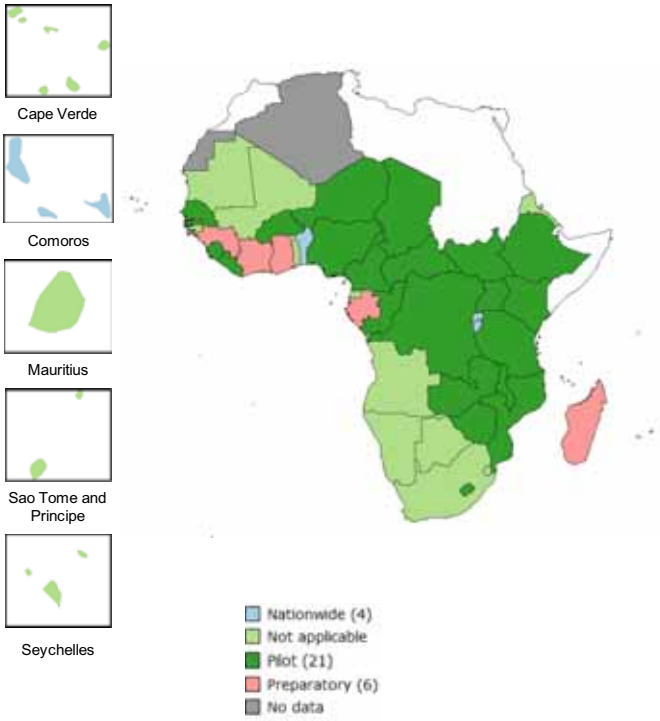
Source: WHO

Figure 3.2.2. Existence of national health strategic plans, in the African Region, by year, 2013



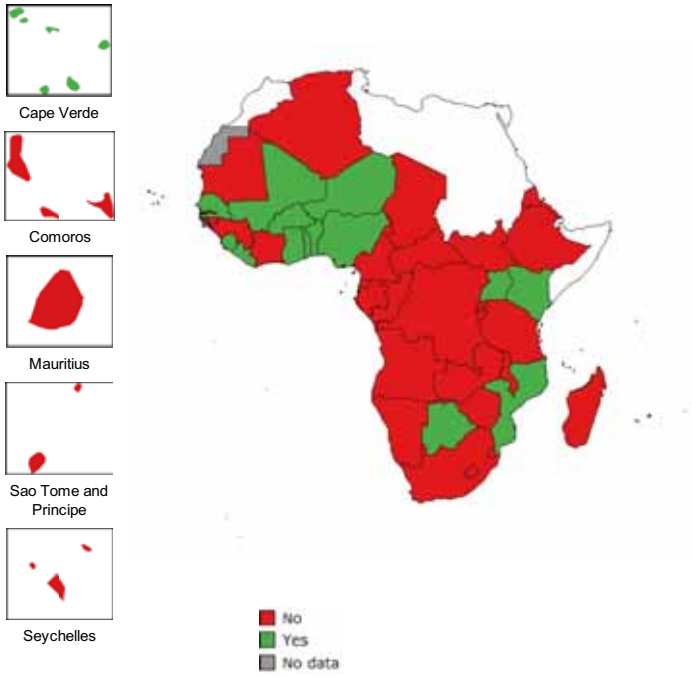
Source: WHO

Figure 3.2.3: Scaling up results-based financing programs in the African Region, 2013



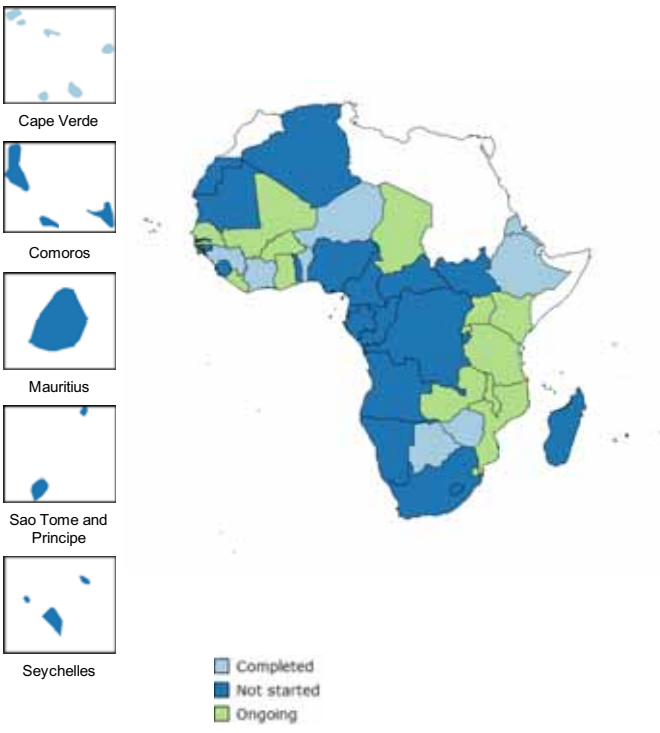
Source: World Bank, 2013

Figure 3.2.5: Countries with comprehensive Monitoring and Evaluation Plan in the African Region



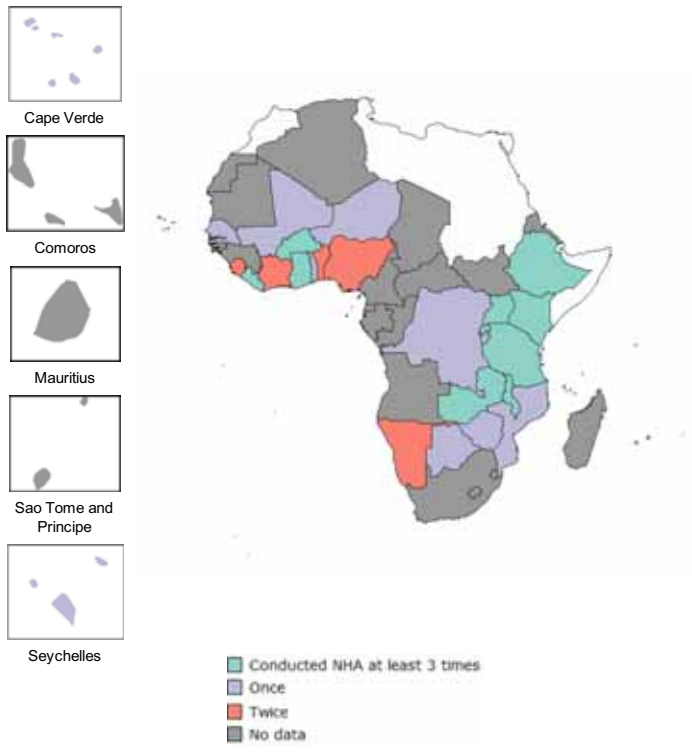
Source: WHO

Figure 3.2.4: Health financing strategy in the African Region



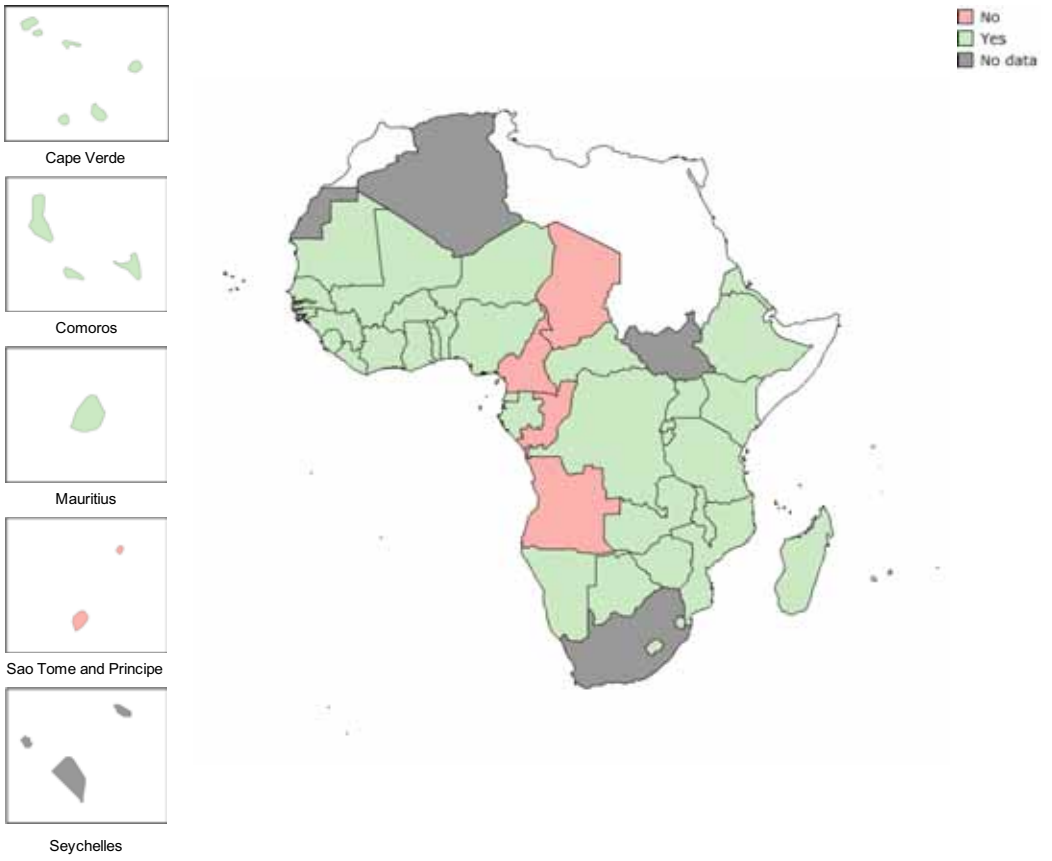
Source: WHO

Figure 3.2.6: Status of national health accounts (NHA) in the African Region



Source : WHO, September 2013

Figure 3.2.7: Countries with institutionalised joint annual reviews in the African Region, 2013



Source: WHO

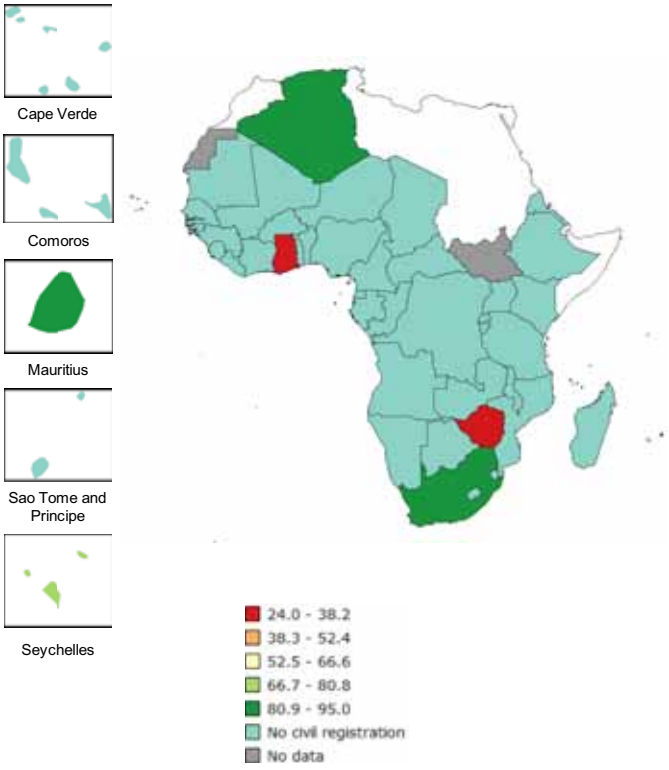
3.3. Partnership for health development

Figure 3.3.1: Countries that have signed compacts in the African Region, 2012

Source: IHP+

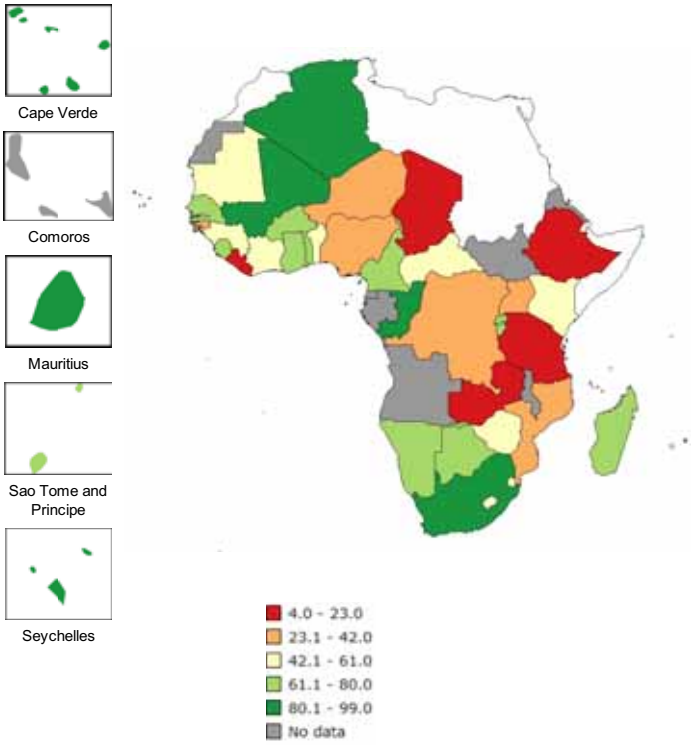
3.4. Health information, evidence and knowledge

Figure 3.4.1: Percentage of civil registration coverage for deaths in the African Region, 2000–2009



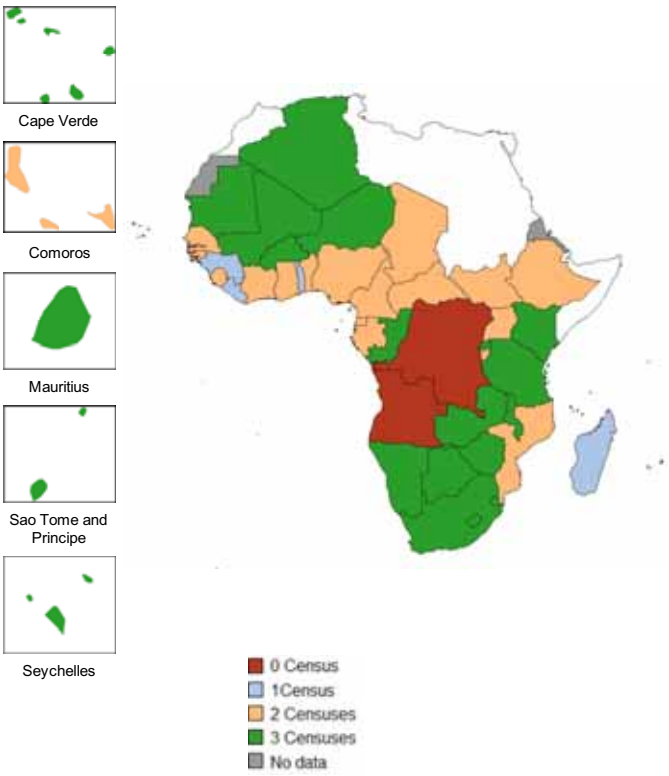
Source : WHO, 2011.

Figure 3.4.2: Percentage of civil registration coverage for births in the African Region, 2005-2011



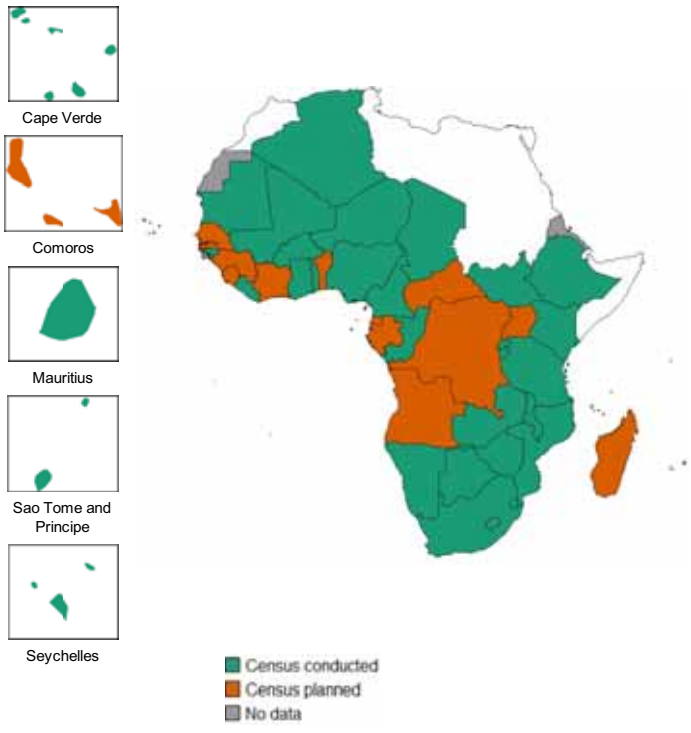
Source : WHO, 2013.

Figure 3.4.3: Distribution of censuses carried out in the last three census round (1985-1994, 1995-2004, 2005-2014) in the African Region



Source : UNSD, July 2013

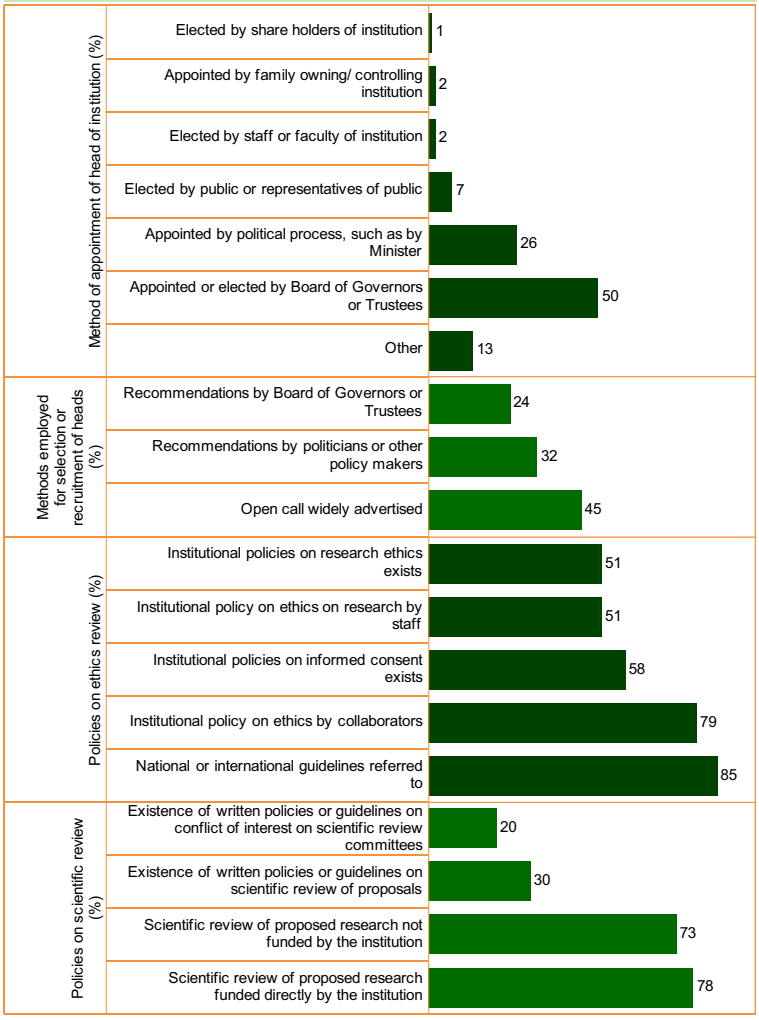
Figure 3.4.4: Availability of census data in African Region, 2005-2014



Source : UNSD, July 2013

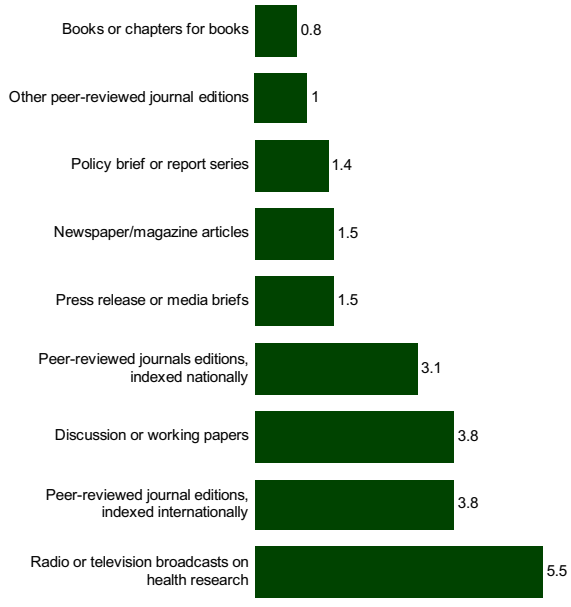
3.5. Research

Figure 3.5.1: Governance of health institutions conducting health research in the African Region*, 2008



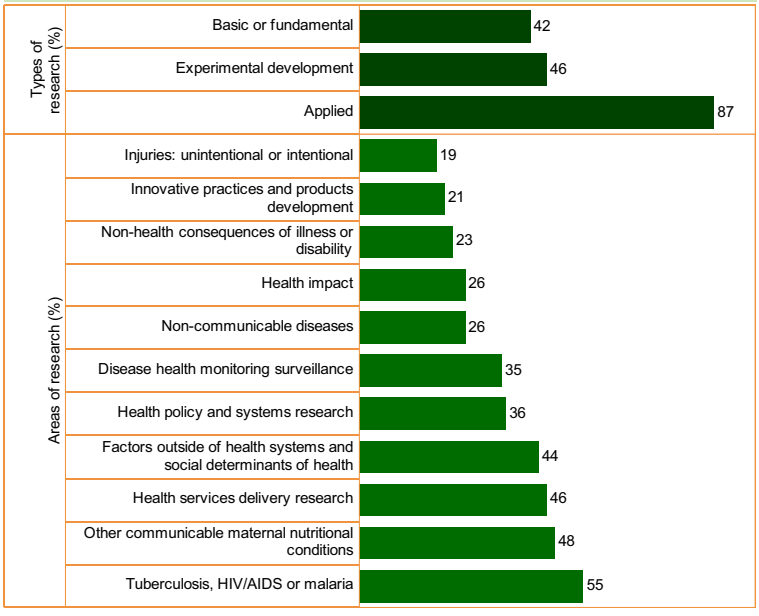
Source : WHO, 2008

Figure 3.5.2: Average number of information products issued per institution conducting health research in the 12 months preceding the survey in the African Region*, 2008



Source : WHO, 2008

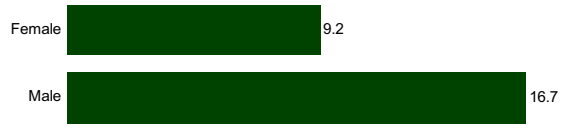
Figure 3.5.3: Types and areas of research in institutions conducting health research in the African Region*, 2008



Source : WHO, 2008

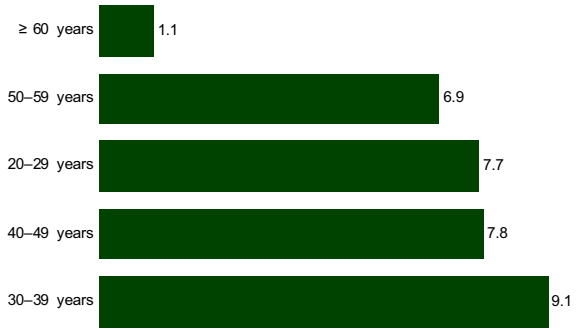
***Not included: Algeria, Angola, Sierra Leone, South Africa and South Sudan**

Figure 3.5.4: Average number of researchers and employees per institution conducting health research by sex in the African Region*, 2008



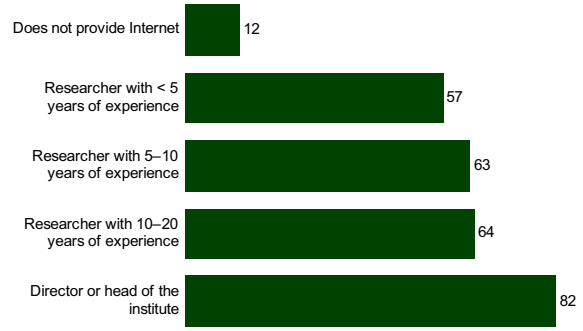
Source : WHO, 2008

Figure 3.5.5: Average number of researchers and employees per institution conducting health research by age group in the African Region*, 2008



Source : WHO, 2008

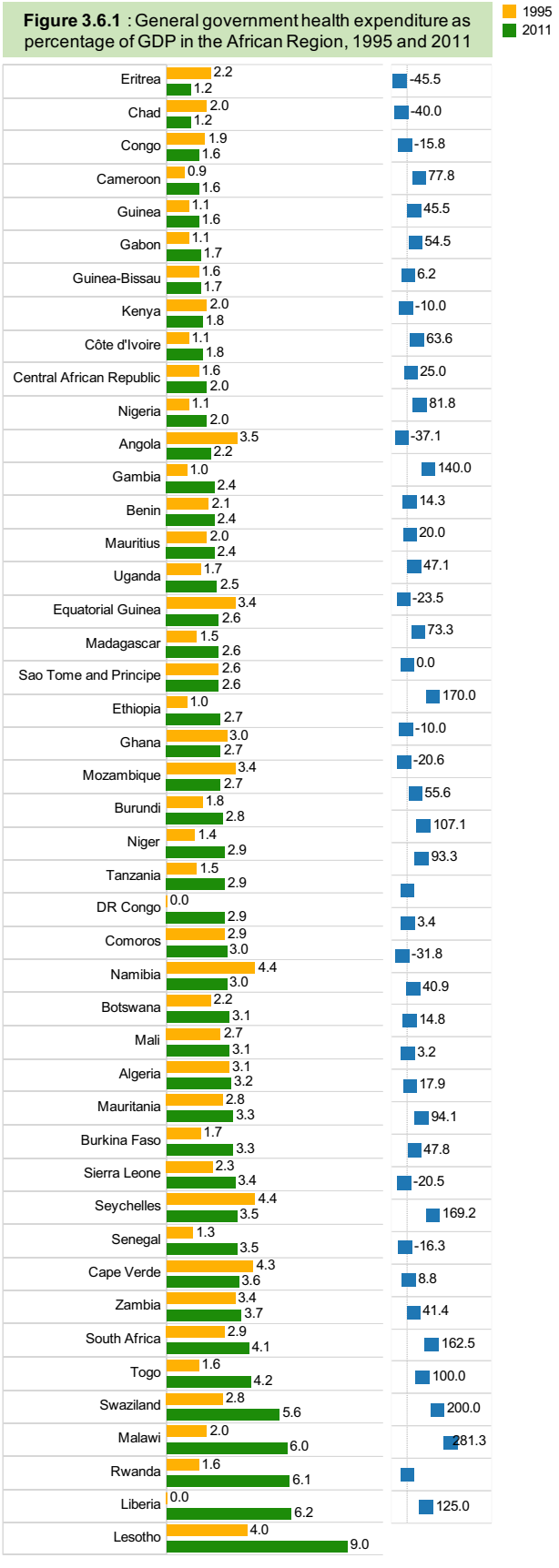
Figure 3.5.6: Provision of Internet access (%) in health research institutions in the African Region*, 2009



Source : WHO, 2008

3.6. Health financing

Figure 3.6.1 : General government health expenditure as percentage of GDP in the African Region, 1995 and 2011

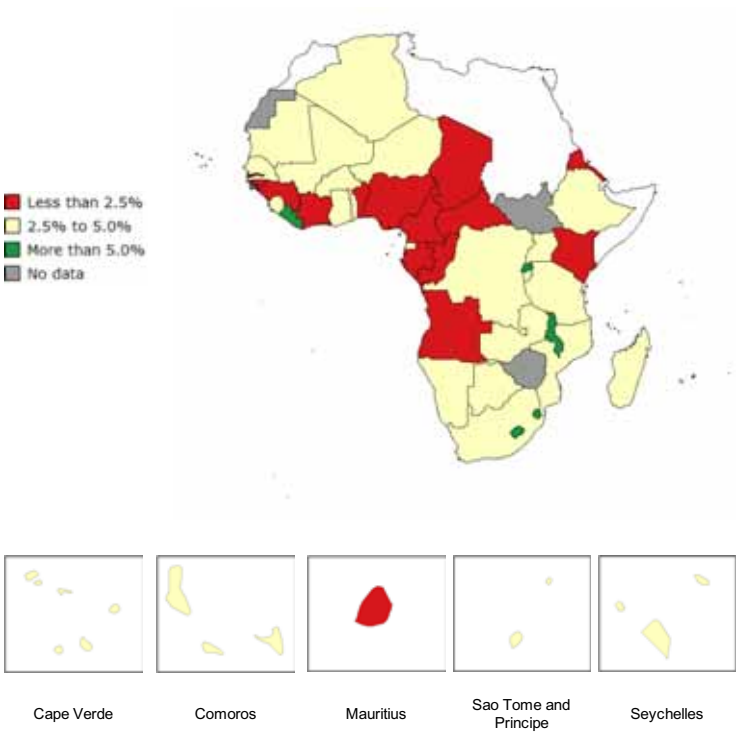


Countries of the African Region without data are not included in the chart.

Growth rate of General Government Health Expenditure as percentage of GDP, between 1995 and 2011

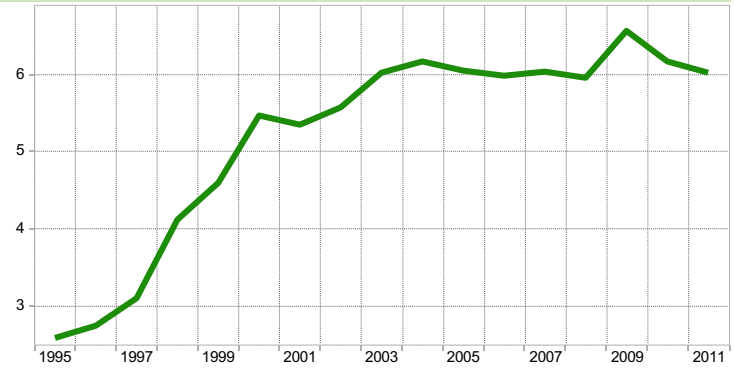
Source : WHO, October 2013

Figure 3.6.2 : General government health expenditure as percentage of GDP in the African Region, 2011



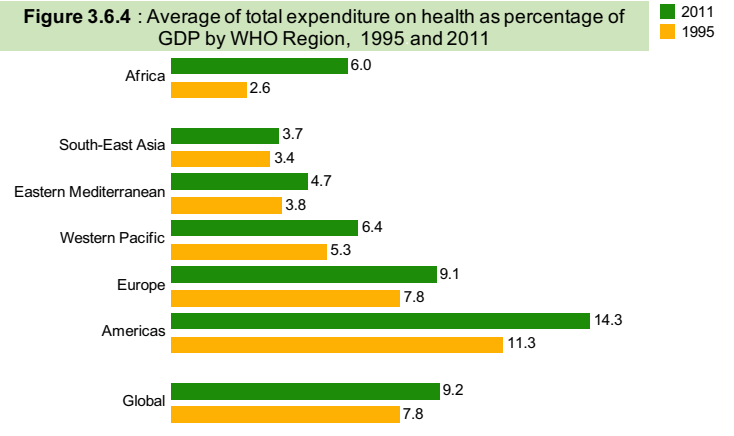
Source: WHO, October 2013

Figure 3.6.3 : Trend in average of total expenditure on health as percentage of GDP in the African Region, 1995 to 2011



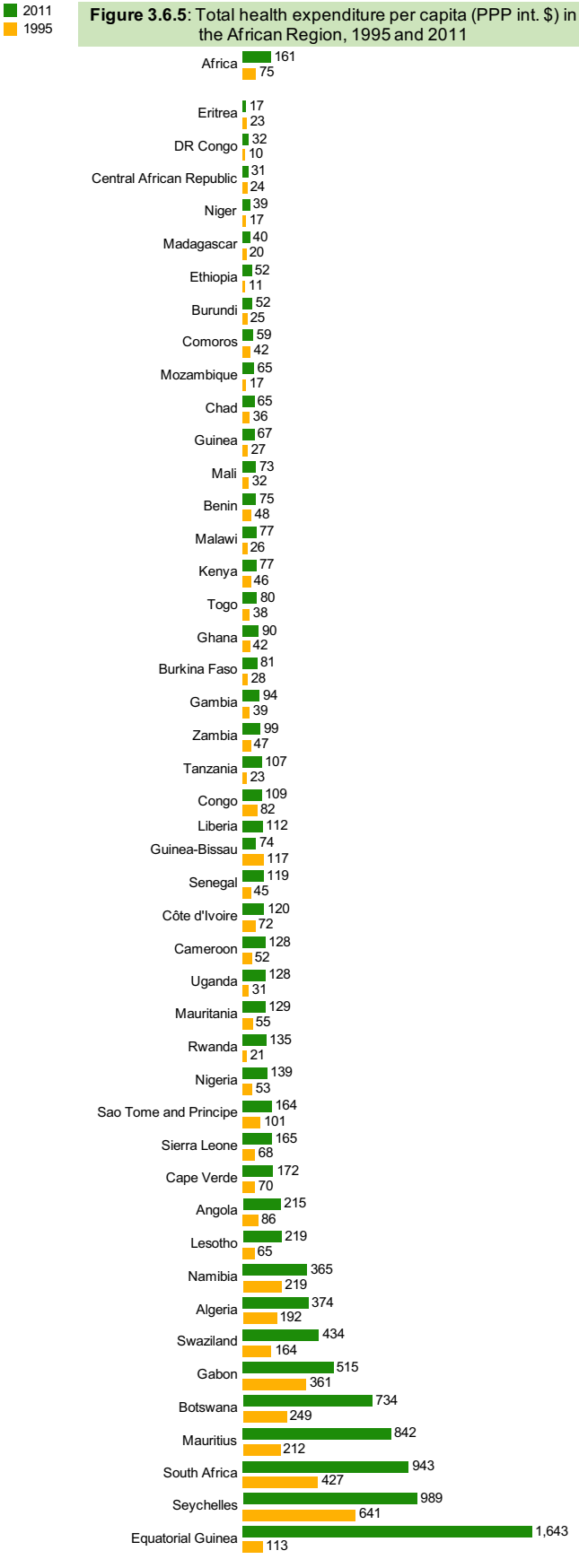
Source : WHO, May 2013

Figure 3.6.4 : Average of total expenditure on health as percentage of GDP by WHO Region, 1995 and 2011



Source : WHO, May 2013

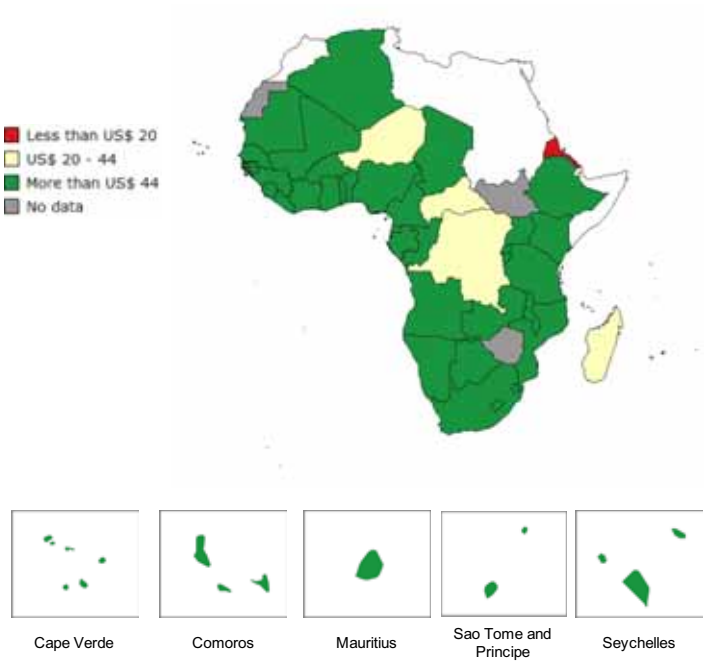
Figure 3.6.5: Total health expenditure per capita (PPP int. $) in the African Region, 1995 and 2011



Countries of the African Region without data are not included in the chart.

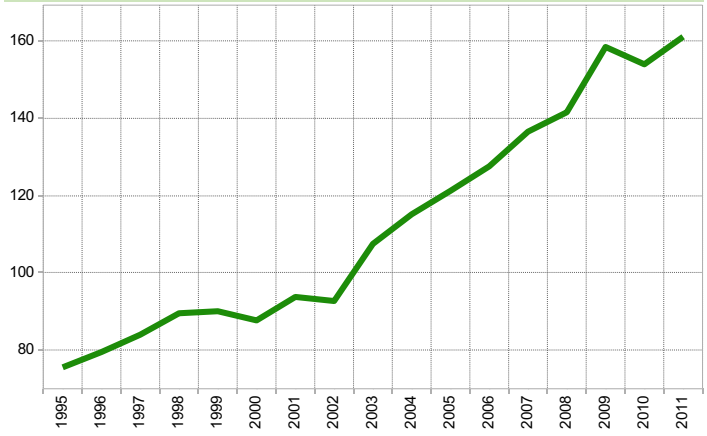
Source : WHO, May 2013

Figure 3.6.6: Total health expenditure per capita (PPP int. $) in the African Region, 2011



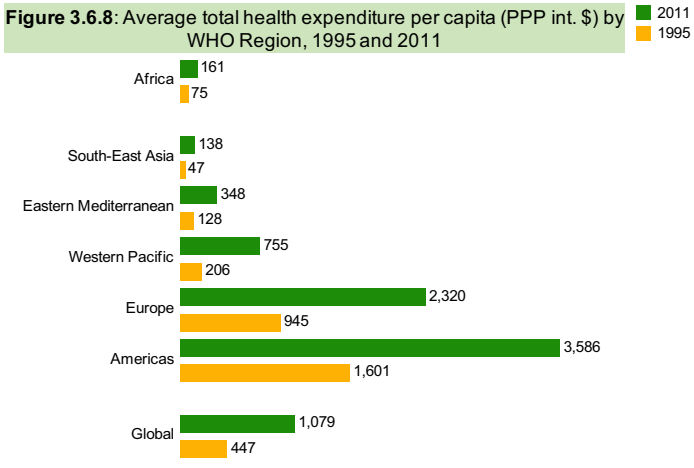
Source : WHO, May 2013

Figure 3.6.7: Trend in average total health expenditure per capita (PPP int. $) in the African Regions, from 1995 to 2011



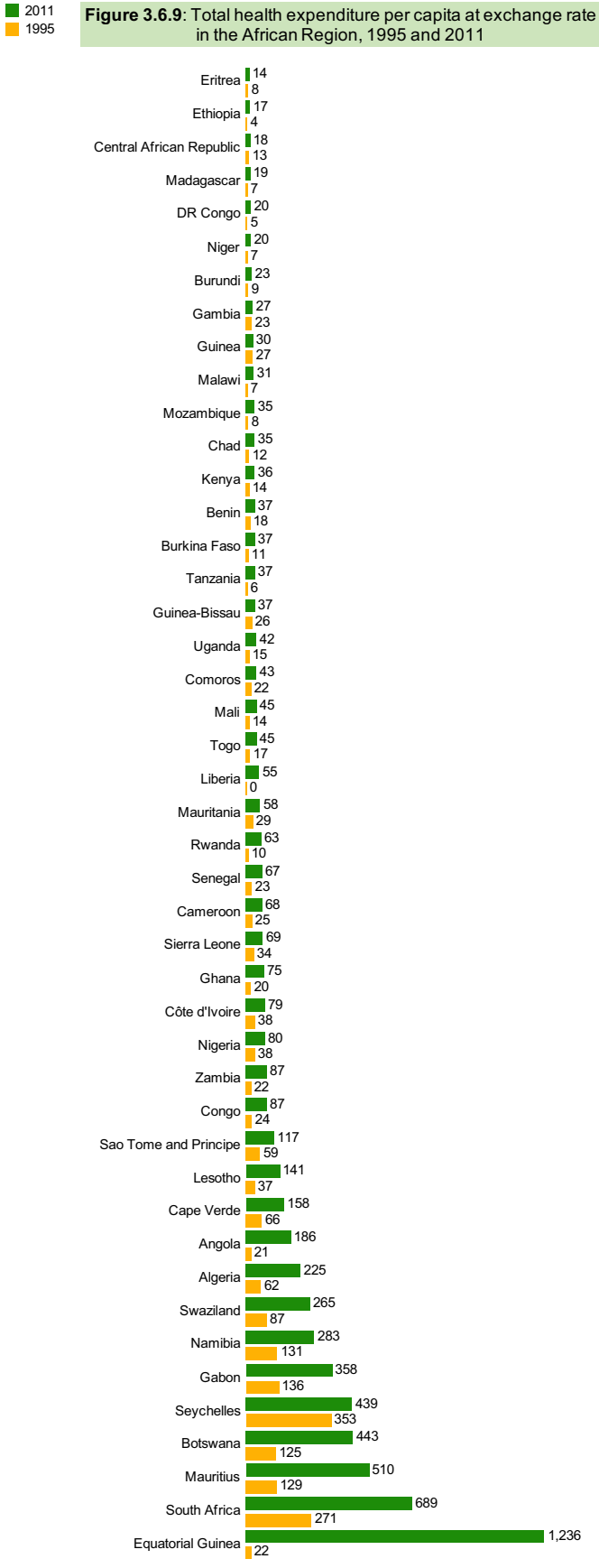
Source : WHO, May 2013

Figure 3.6.8: Average total health expenditure per capita (PPP int. $) by WHO Region, 1995 and 2011



Source : WHO, May 2013

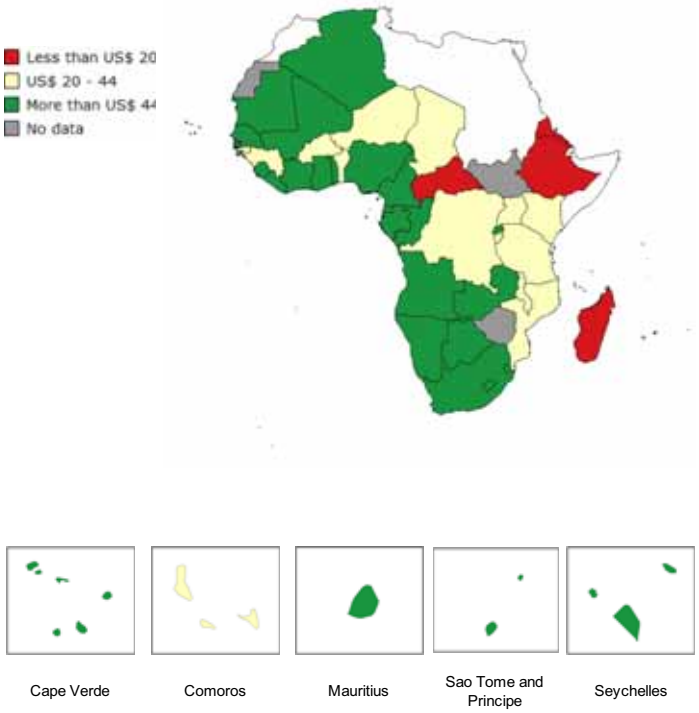
Figure 3.6.9: Total health expenditure per capita at exchange rate in the African Region, 1995 and 2011



Countries of the African Region without data are not included in the chart.

Source : WHO, October 2013

Figure 3.6.10:Total health expenditure per capita at exchange rate in the African Region, 2011



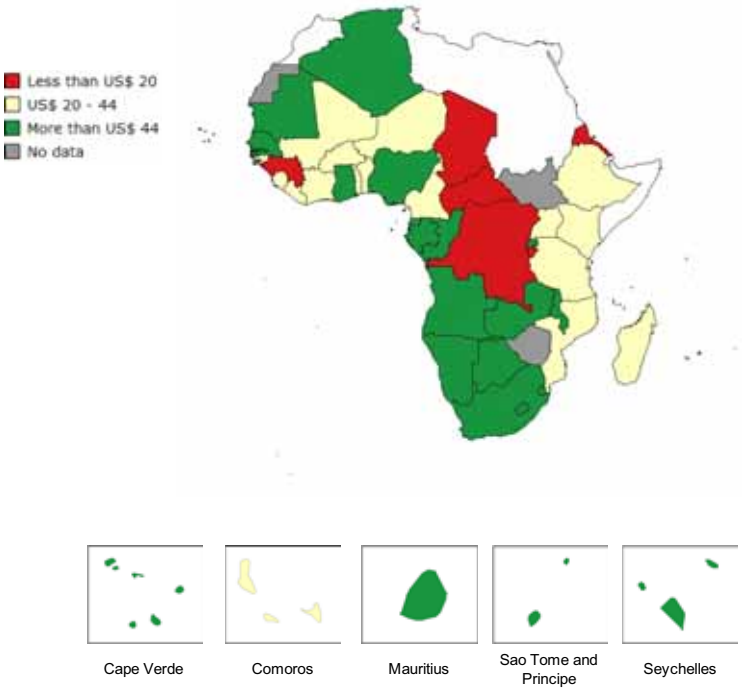
Source : WHO, October 2013

Figure 3.6.11: General government health expenditure per capita (PPP int. $) in the African Region, 1995 and 2011

Countries of the African Region without data are not included in the chart.

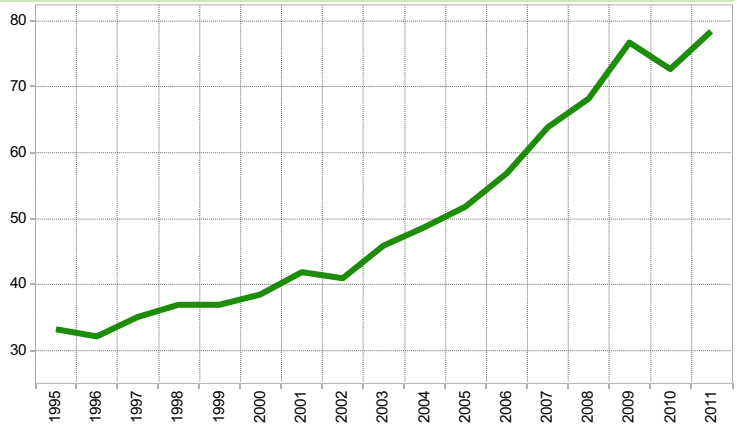
Source : WHO, May 2013

Figure 3.6.12: General government health expenditure per capita (PPP int. $) in the African Region, 2011



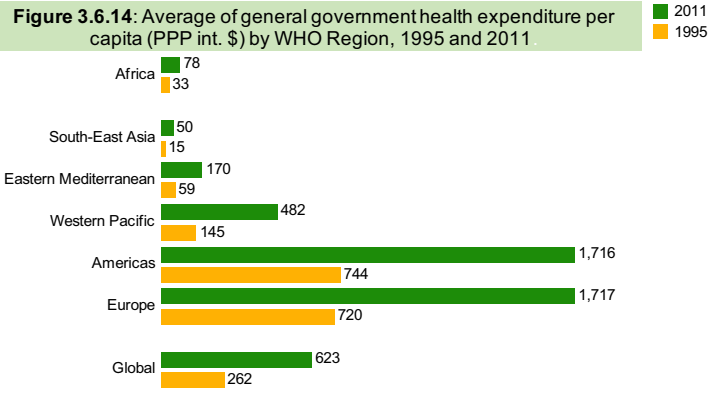
Source : WHO, May 2013

Figure 3.6.13: Trend in average of general government health expenditure per capita (PPP int. $) in the African Region, 1995 to 2011



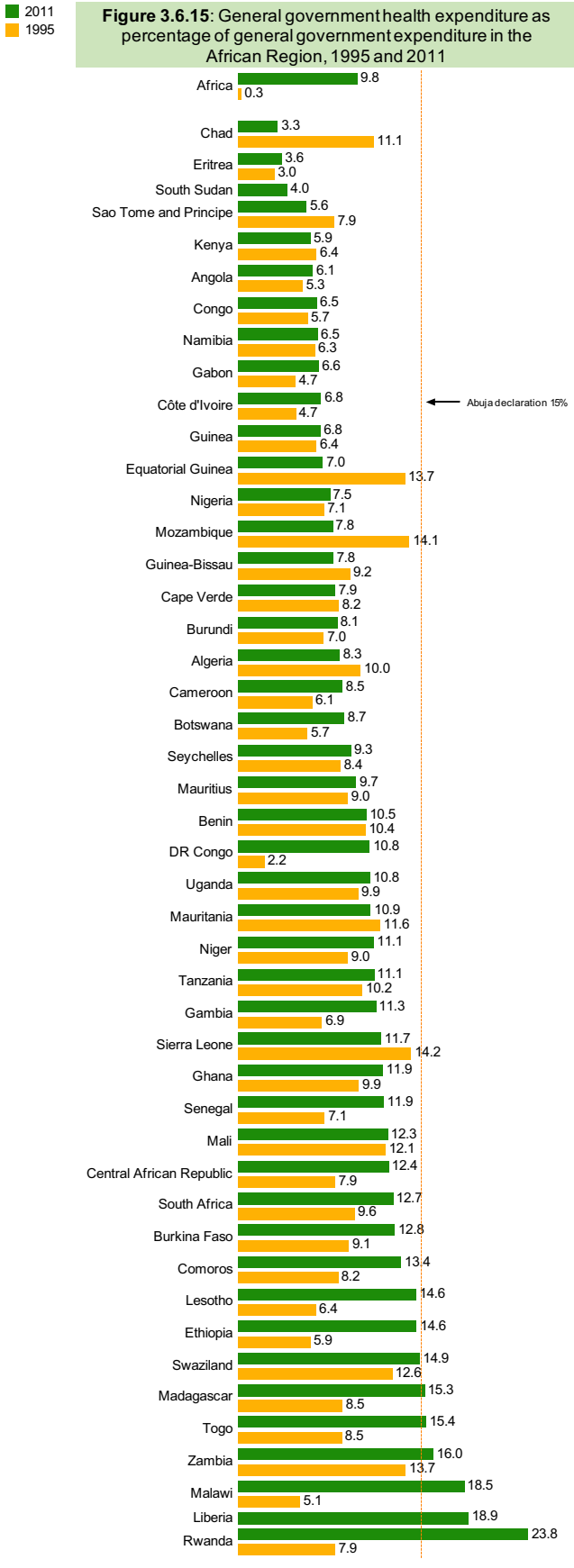
Source : WHO, *Global Health Observatory, May 2013*

Figure 3.6.14: Average of general government health expenditure per capita (PPP int. $) by WHO Region, 1995 and 2011



Source : WHO, May 2013

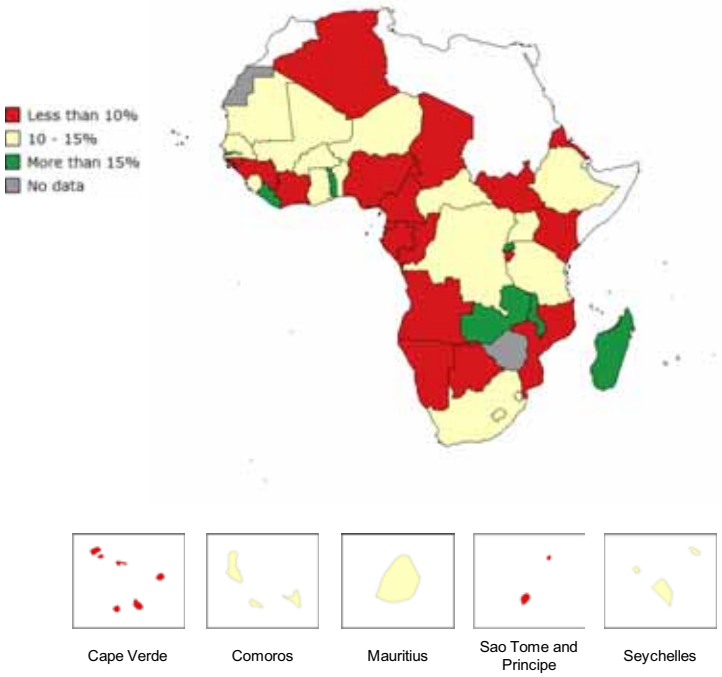
Figure 3.6.15: General government health expenditure as percentage of general government expenditure in the African Region, 1995 and 2011



Countries of the African Region without data are not included in the chart.

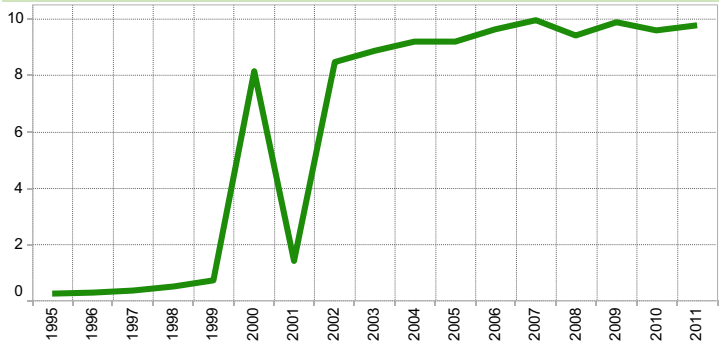
Source : WHO, October 2013

Figure 3.6.16: General government health expenditure as percentage of general government expenditure in the African Region, 2011



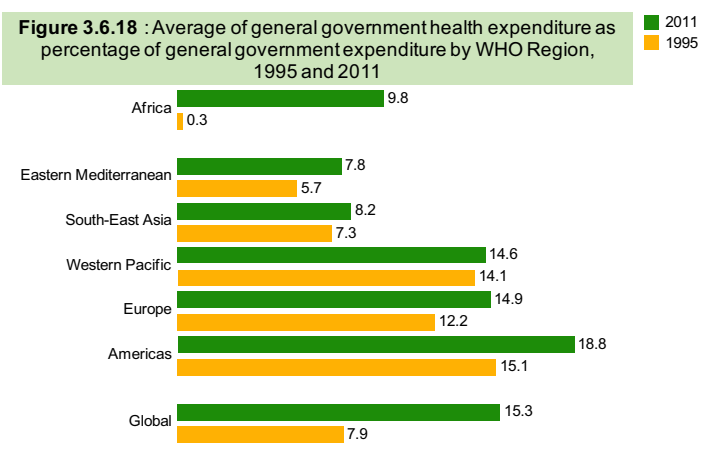
Source : WHO, October 2013

Figure 3.6.17: Trend in average of general government health expenditure as percentage of general government expenditure in the African Region, 1995 to 2011



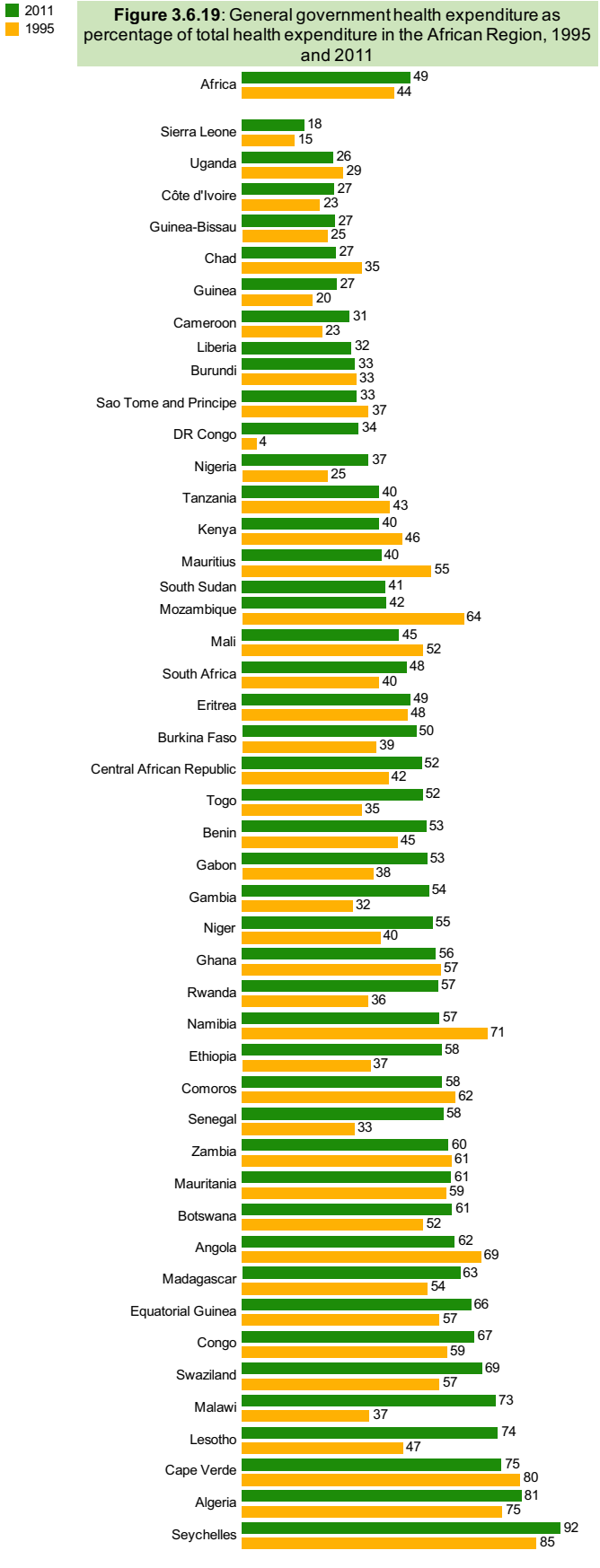
Source : WHO, May 2013

Figure 3.6.18 : Average of general government health expenditure as percentage of general government expenditure by WHO Region, 1995 and 2011



Source : WHO, May 2013

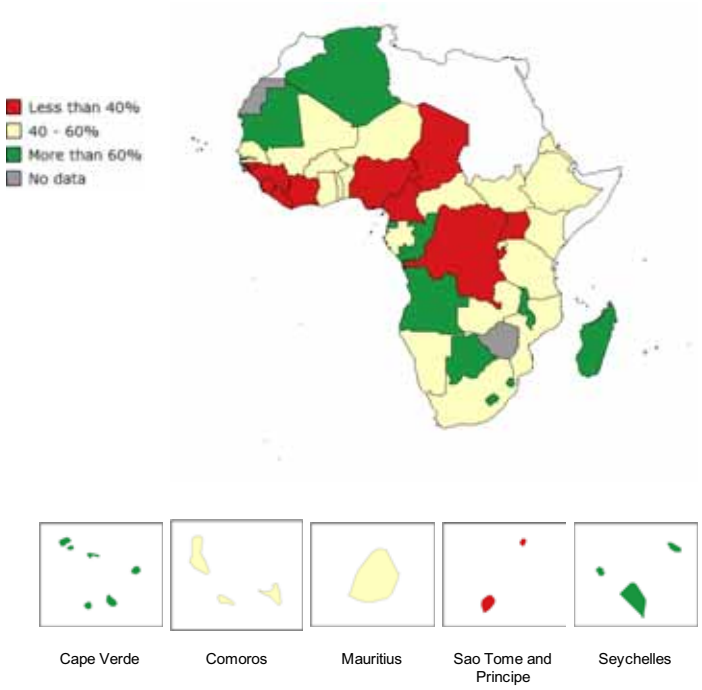
Figure 3.6.19: General government health expenditure as percentage of total health expenditure in the African Region, 1995 and 2011



Countries of the African Region without data are not included in the chart.

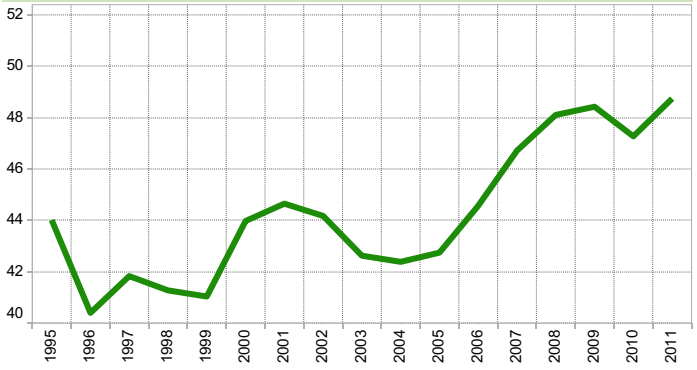
Source : WHO, October 2013

Figure 3.6.20: General government health expenditure as percentage of total heath expenditure in the African Region, 2011



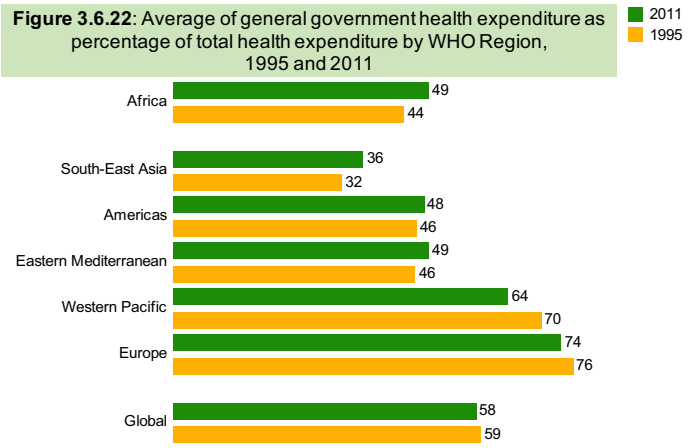
Source : WHO, October 2013

Figure 3.6.21: Trend in average of general government health expenditure as percentage of total health expenditure in the African Region, 1995 to 2011



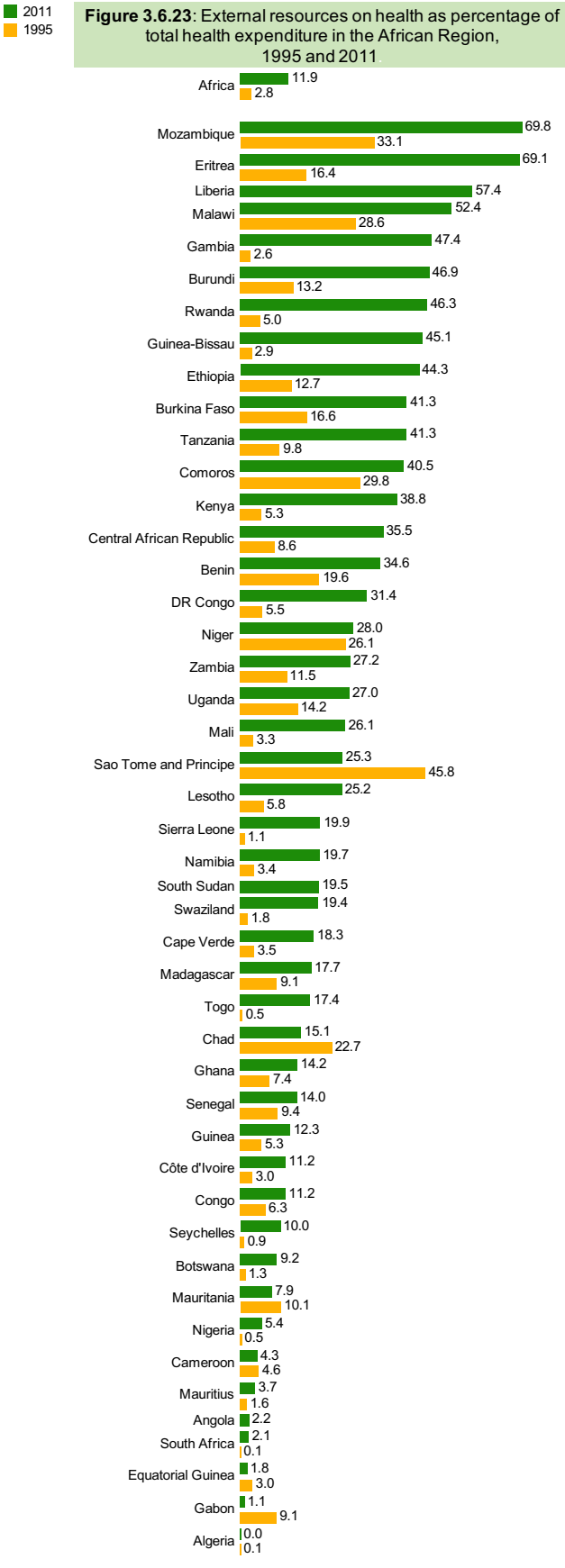
Source : WHO, May 2013

Figure 3.6.22: Average of general government health expenditure as percentage of total health expenditure by WHO Region, 1995 and 2011



Source : WHO, May 2013

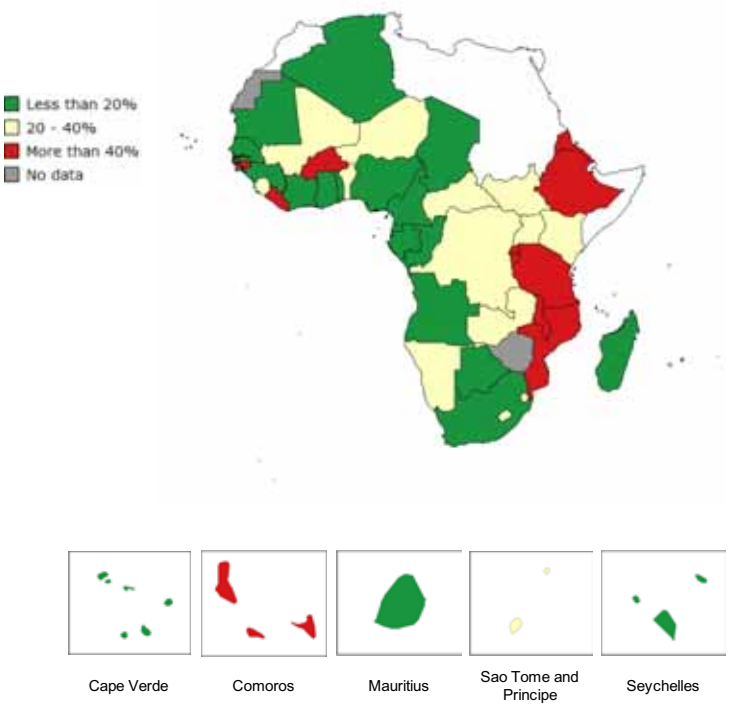
Figure 3.6.23: External resources on health as percentage of total health expenditure in the African Region, 1995 and 2011



Countries of the African Region without data are not included in the chart.

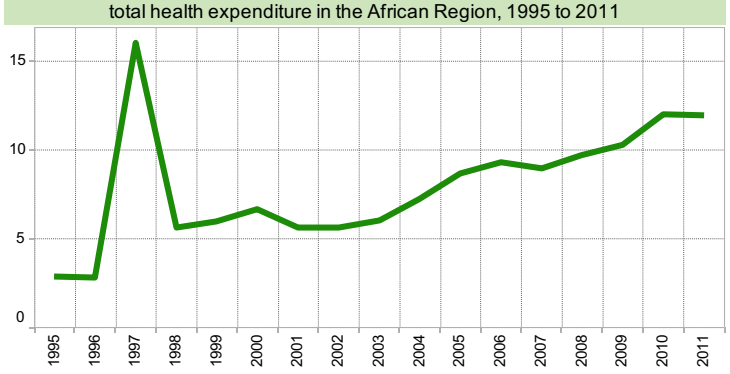
Source : WHO, October 2013

Figure 3.6.24: External resources on health as percentage of total health expenditure in the African Region, 2011



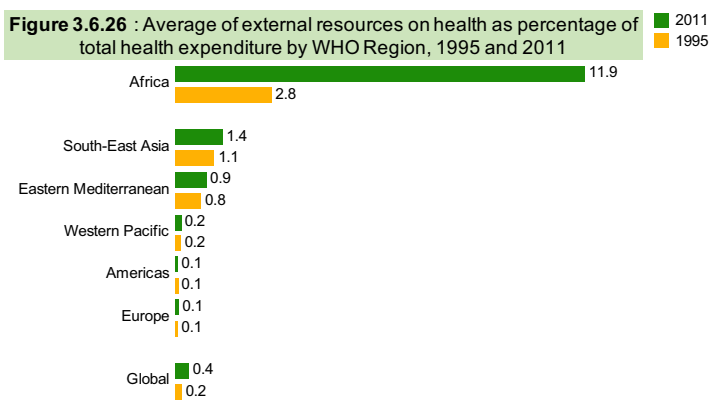
Source : WHO, October 2013

Figure 3.6.25: Trend in average of external resources on health as percentage of total health expenditure in the African Region, 1995 to 2011



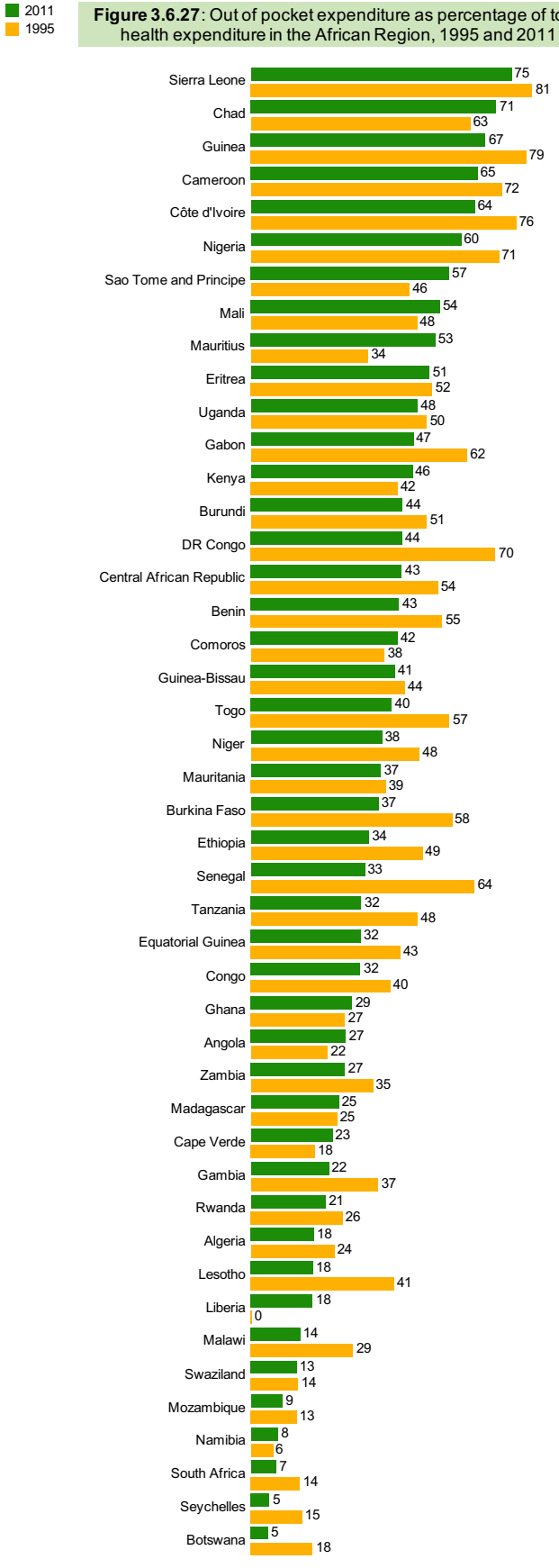
Source : WHO, May 2013

Figure 3.6.26 : Average of external resources on health as percentage of total health expenditure by WHO Region, 1995 and 2011



Source : WHO, May 2013

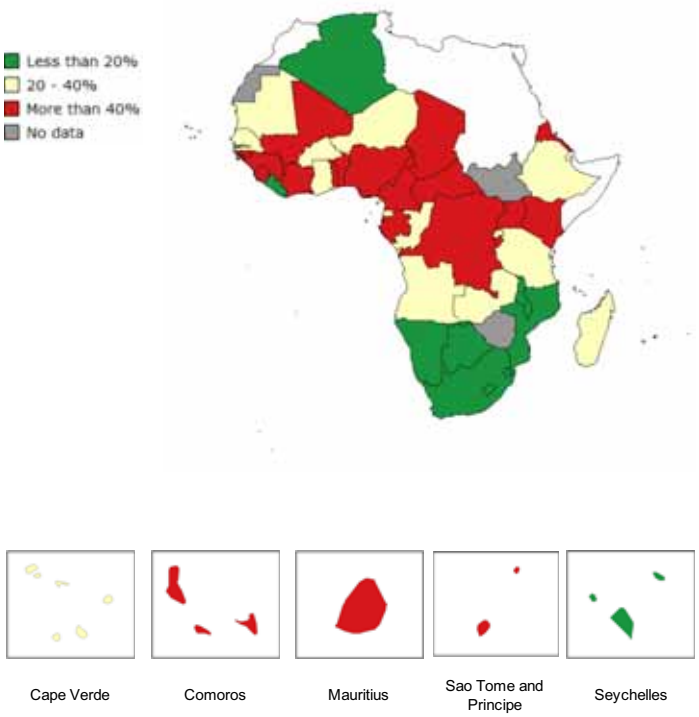
Figure 3.6.27: Out of pocket expenditure as percentage of total health expenditure in the African Region, 1995 and 2011



Countries of the African Region without data are not included in the chart.

Source : WHO, October 2013

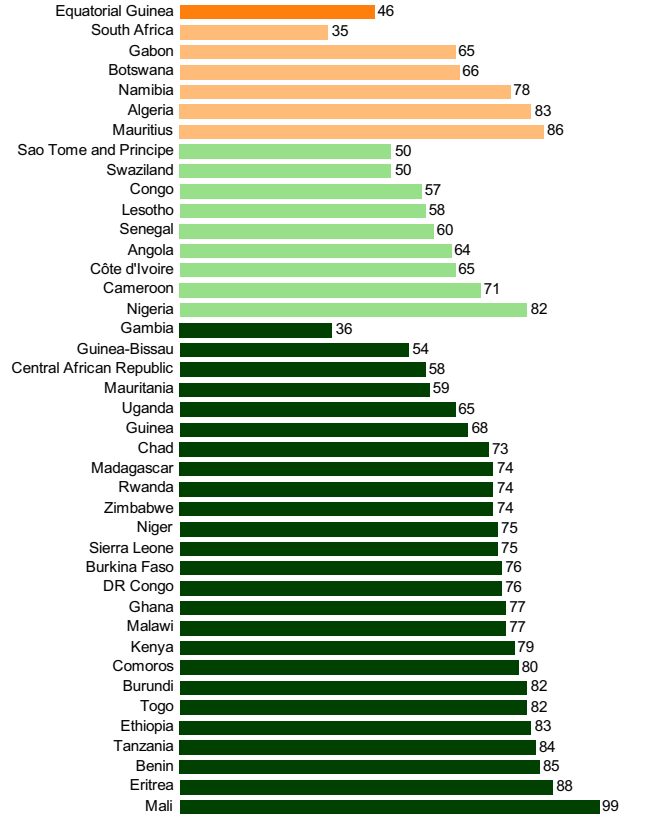
Figure 3.6.28: Out of pocket expenditure as percentage of total health expenditure in the African Region, 2011



Source : WHO, October 2013

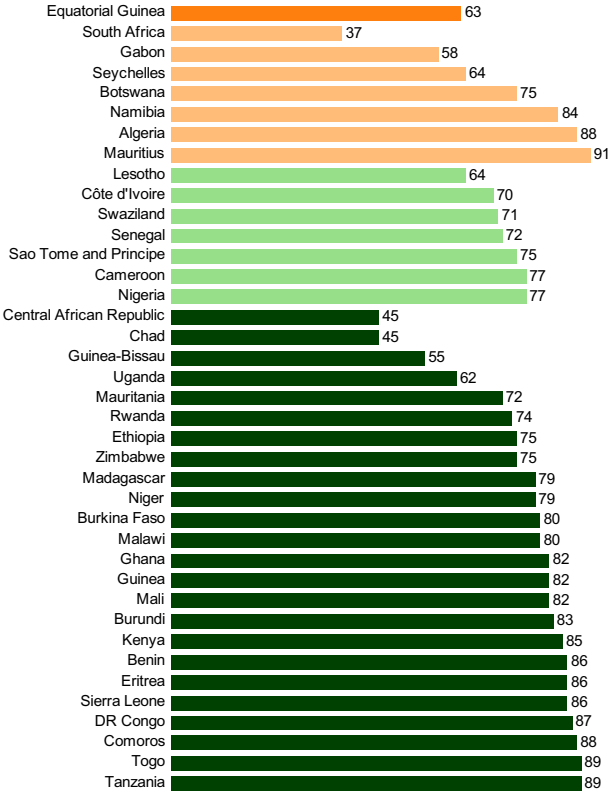
3.7. Service delivery

Figure 3.7.1: Treatment success rate for retreatment tuberculosis cases,by income group* of countries, in the African Region, 2010



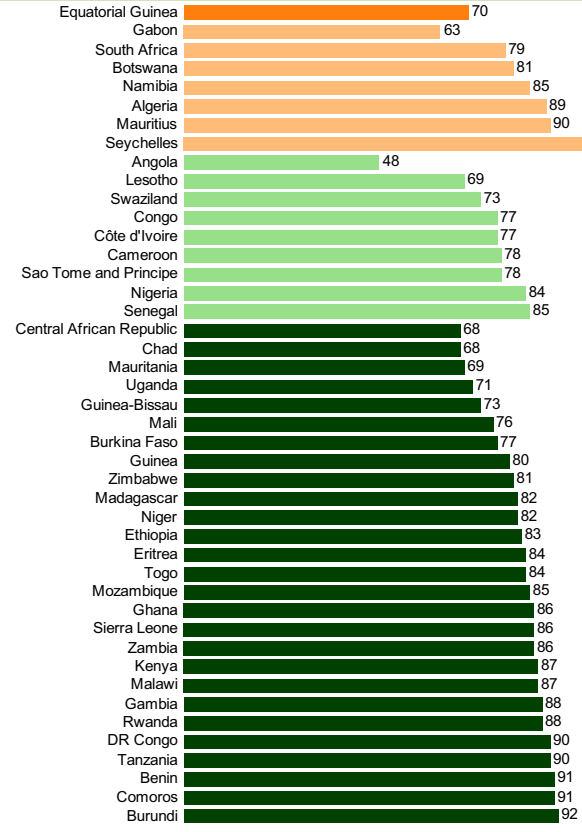
Countries of the African Region without data are not included in the chart.

Figure 3.7.2: Treatment success rate for new pulmonary smear-negative and extrapulmonary tuberculosis cases,by income group* of countries, in the African Region, 2010

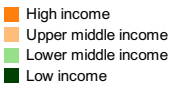


Countries of the African Region without data are not included in the chart.

Figure 3.7.3: Smear-positive tuberculosis treatment-success rate (%),by income group* of countries, in the African Region, 2010



Countries of the African Region without data are not included in the chart.

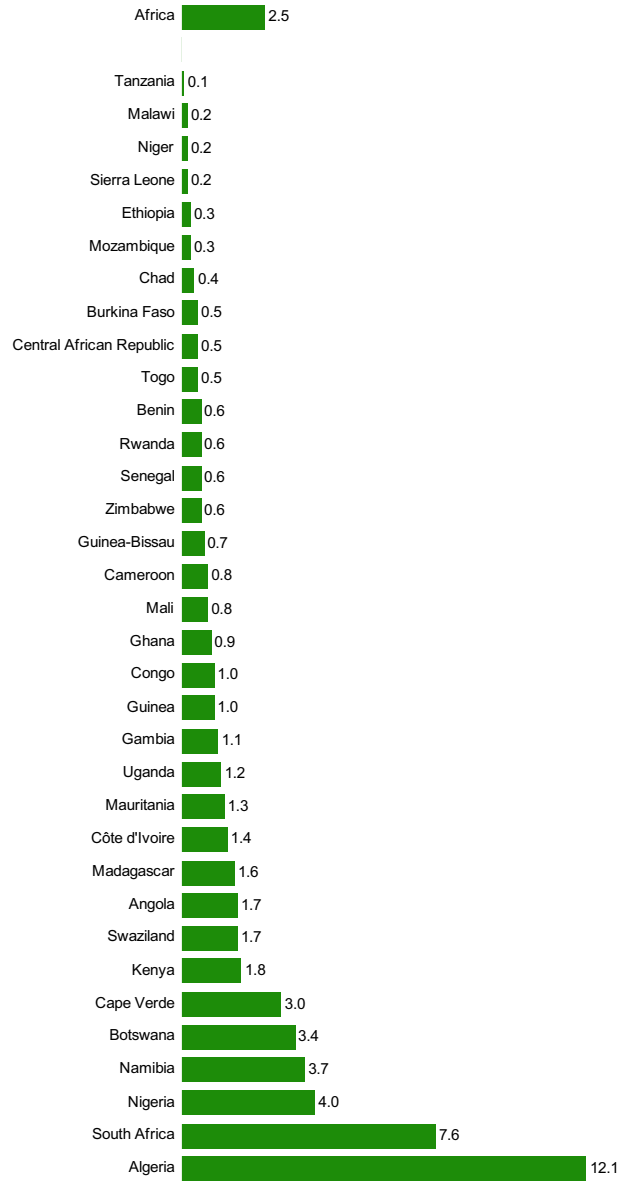


Source : WHO, July 2013

*** World Bank Income Classifications (as of December 2010)**
- Low income: $995 or less
- Lower middle income: $996 to 3,945
- Upper middle income: $3,946 to 12,195
- High income: $12,196 or more

3.8. Health workforce

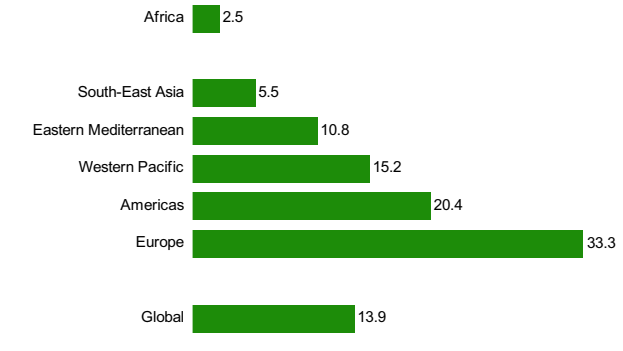
Figure 3.8.1: Physician-to-population ratio (per 10,000 population) in the African Region, 2005-2012



Countries of the African Region without data are not included in the chart.

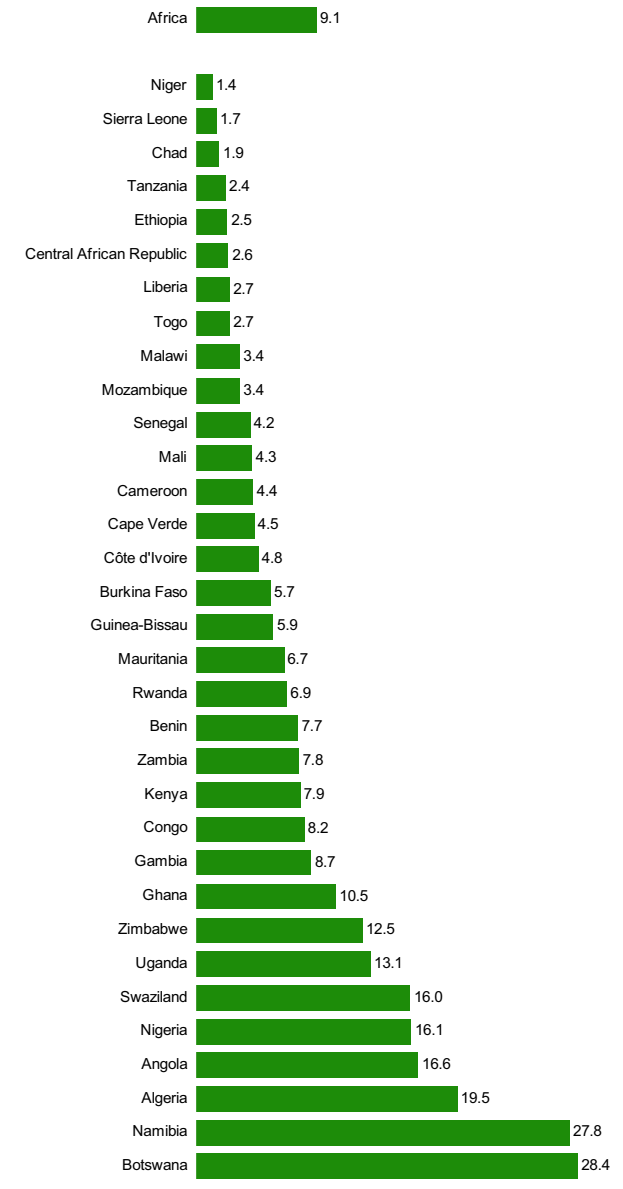
Source : WHO, August 2013

Figure 3.8.2: Physician-to-population ratio (per 10,000 population) by WHO Region, 2005-2012



Source : WHO, August 2013

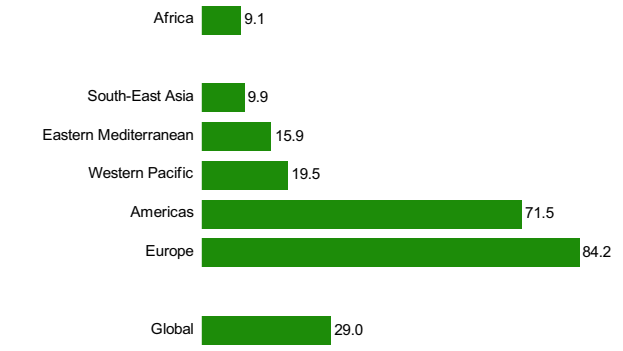
Figure 3.8.3: Nursing and midwifery personnel-to-population ratio (per 10,000 population) in the African Region, 2005–2012



Countries of the African Region without data are not included in the chart.

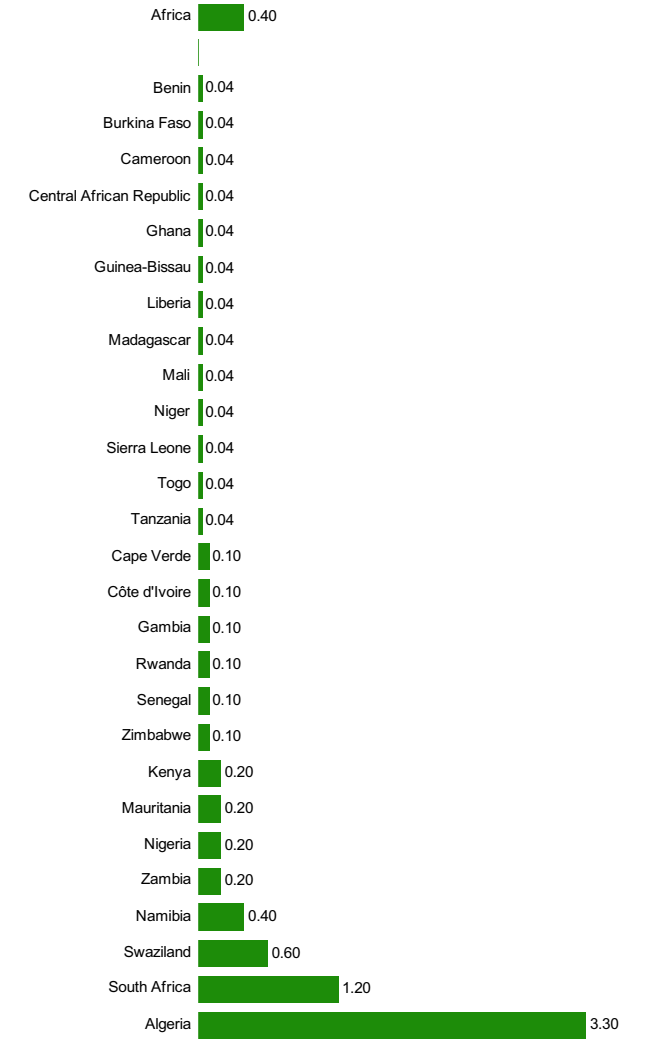
Source : WHO, August 2013

Figure 3.8.4: Nursing and midwifery personnel-to-population ratio (per 10,000 population) by WHO Region, 2005–2012



Source : WHO, August 2013

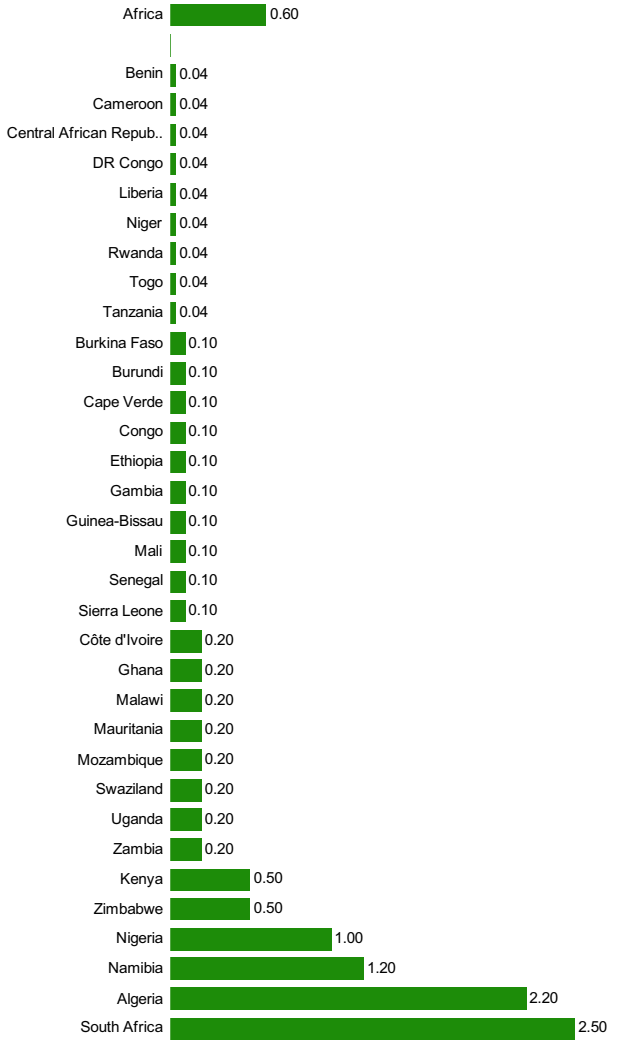
Figure 3.8.5: Dentistry personnel density (per 10,000 population) in the African Region, 2005–2012



Countries of the African Region without data are not included in the chart.

Source : WHO, August 2013

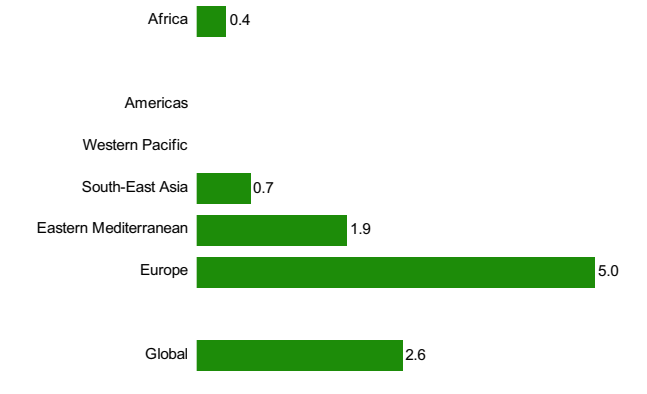
Figure 3.8.7: Pharmaceutical personnel density (per 10,000 population) in the African Region, 2005–2012



Countries of the African Region without data are not included in the chart.

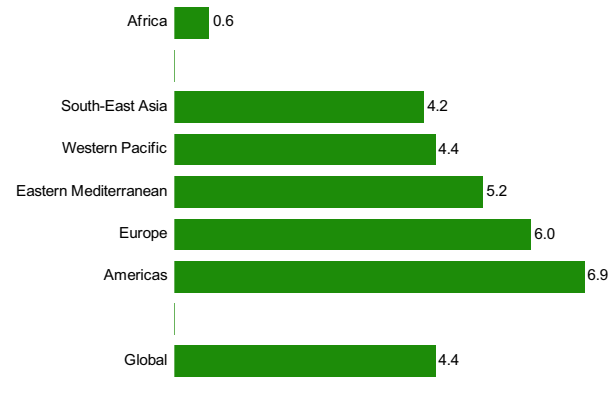
Source : WHO, August 2013

Figure 3.8.6: Dentistry personnel density (per 10,000 population) by WHO Region, 2005–2012



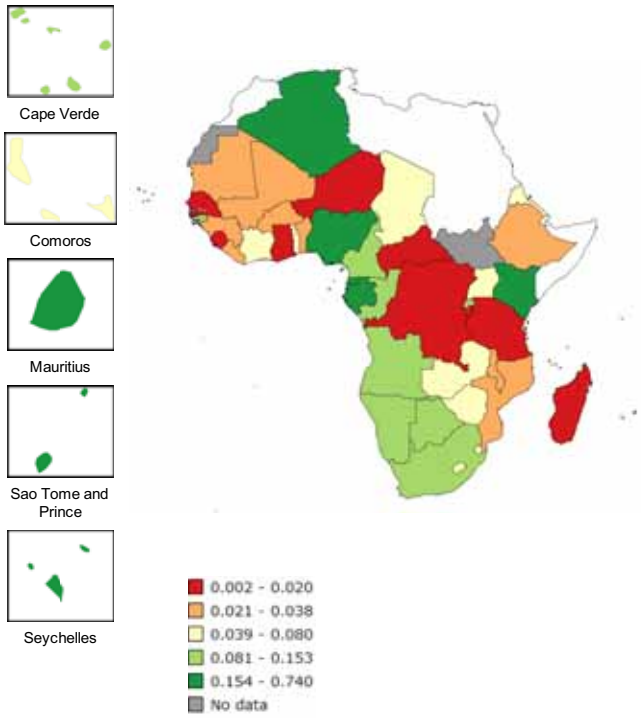
Source : WHO, August 2013

Figure 3.8.8: Pharmaceutical personnel density (per 10,000 population) by WHO Region, 2005–2012



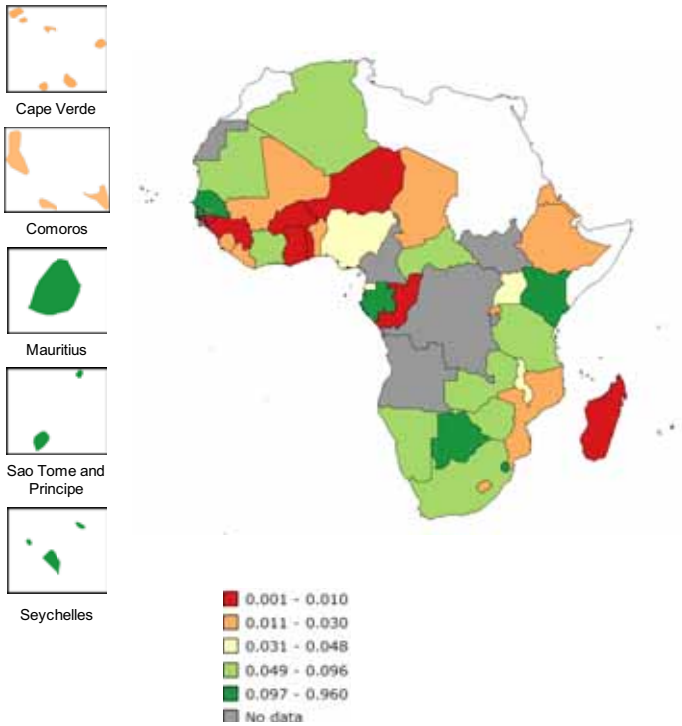
Source : WHO, August 2013

Figure 3.8.9: Laboratory health workers density (per 1000 population) in the African Region, 2000-2011



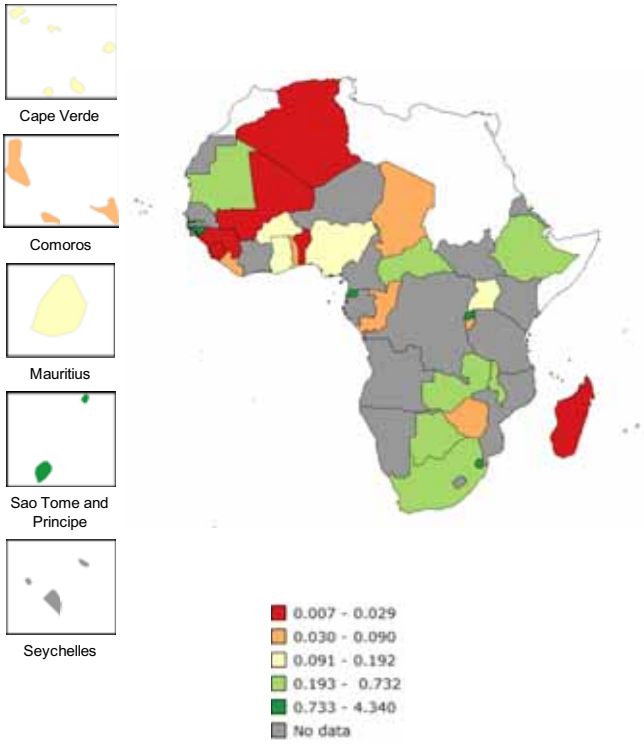
Source : WHO, August 2013

Figure 3.8.10: Environmental and public health workers density (per 1000 population) in the African Region, 2000-2011



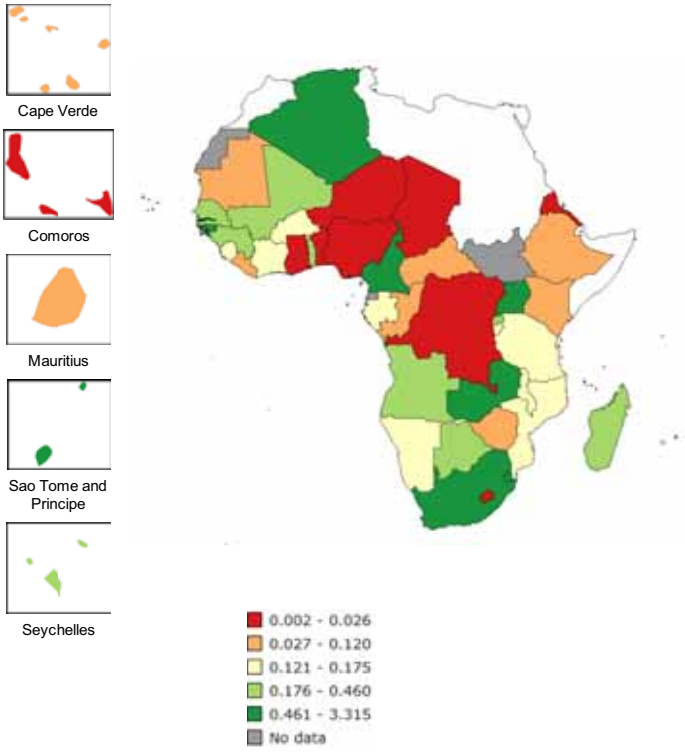
Source : WHO, August 2013

Figure 3.8.11: Community and traditional health workers density (per 1000 population) in the African Region, 2000-2010



Source : WHO, August 2013

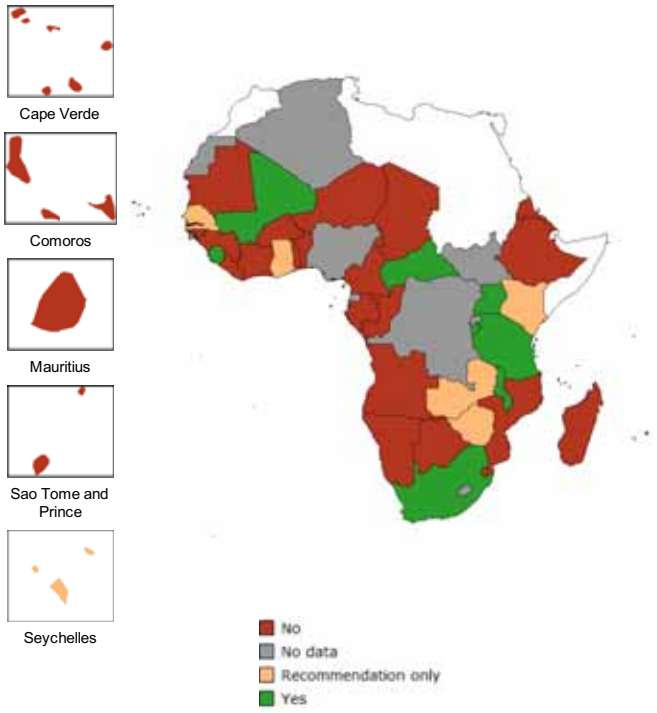
Figure 3.8.12: Other health workers density (per 1000 population) in the African Region, 2000-2011



Source : WHO, August 2013

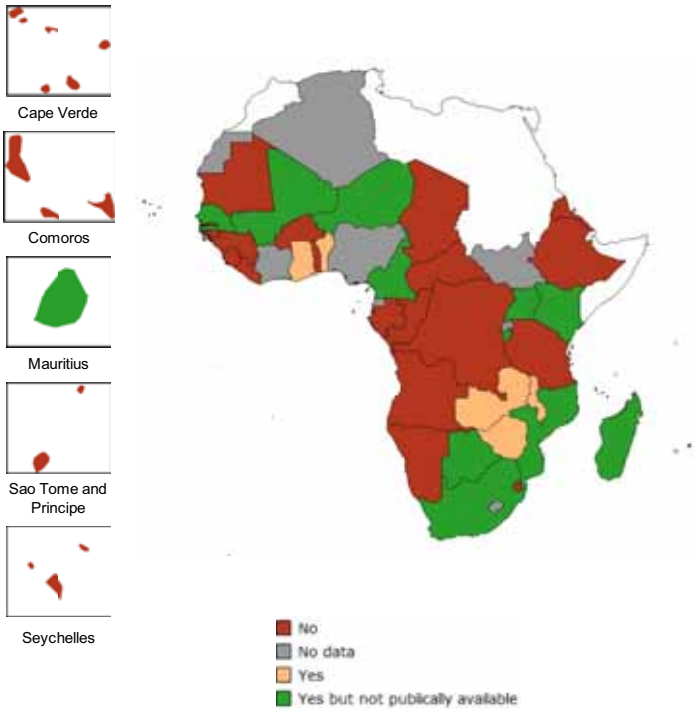
3.9. Medical products, vaccines, infrastructures and equipment

Figure 3.9.1: Availability of national list of approved medical devices for procurement or reimbursement, African Region, 2010



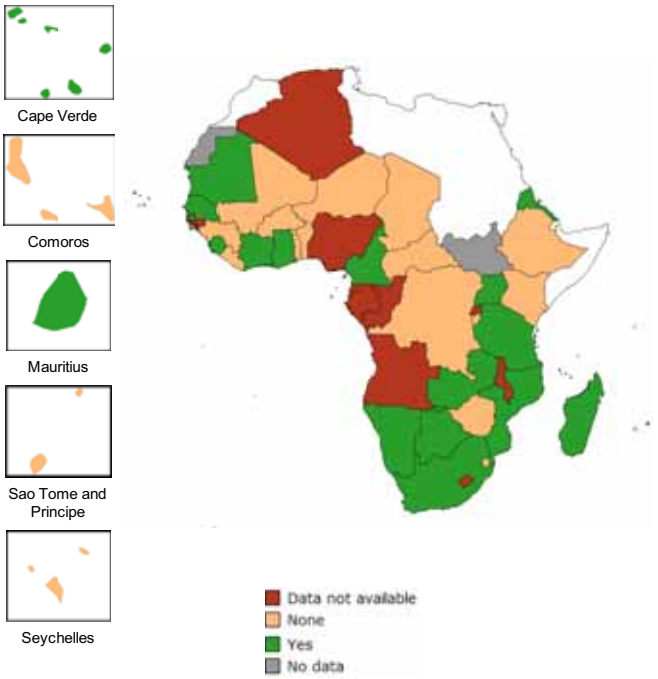
Source : WHO, May 2013

Figure 3.9.2: Availability of technical specifications of medical devices to support procurement or donations in the African Region, 2010



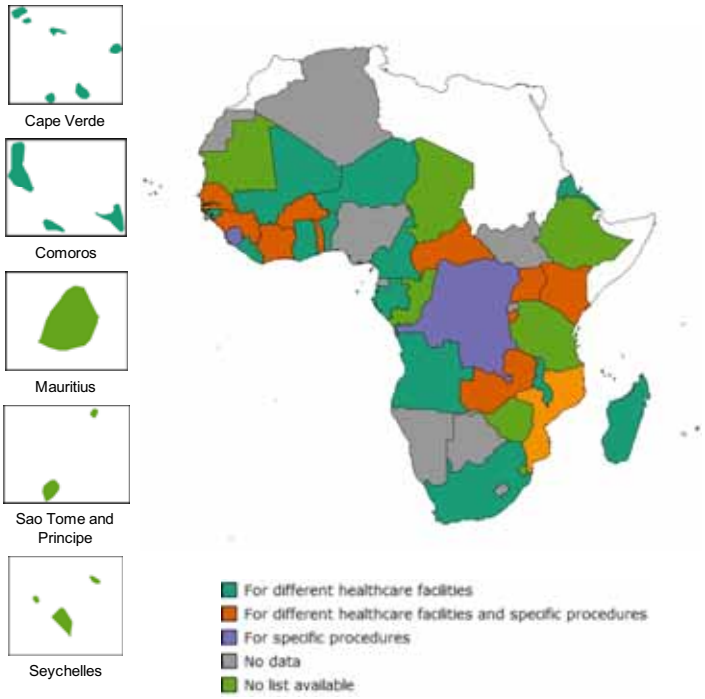
Source : WHO, May 2013

Figure 3.9.3: Presence of units in ministries of Health responsible for the implementation of the health technology national policy in the African Region, 2010



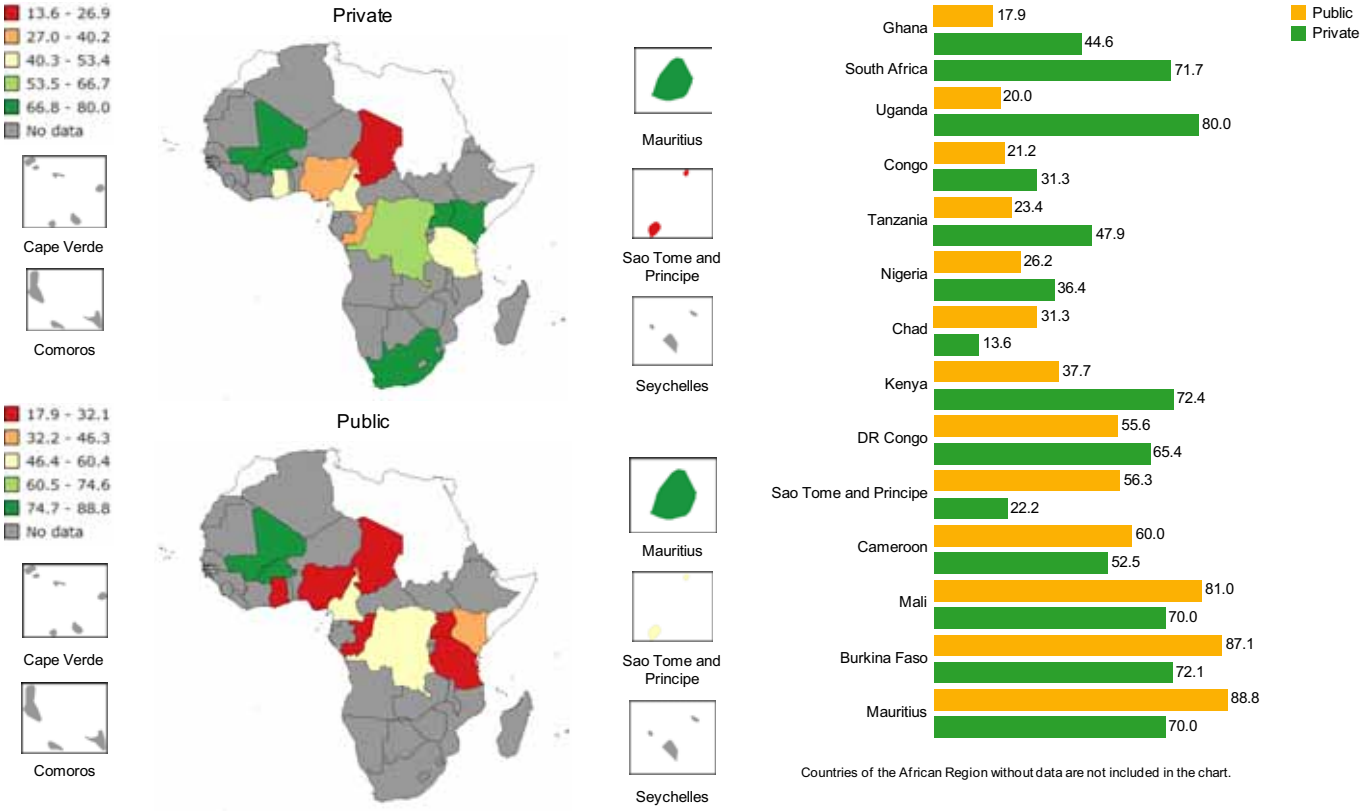
Source : WHO, May 2013

Figure 3.9.4: Availability of national standards or recommended lists of medical devices in the African Region, 2010



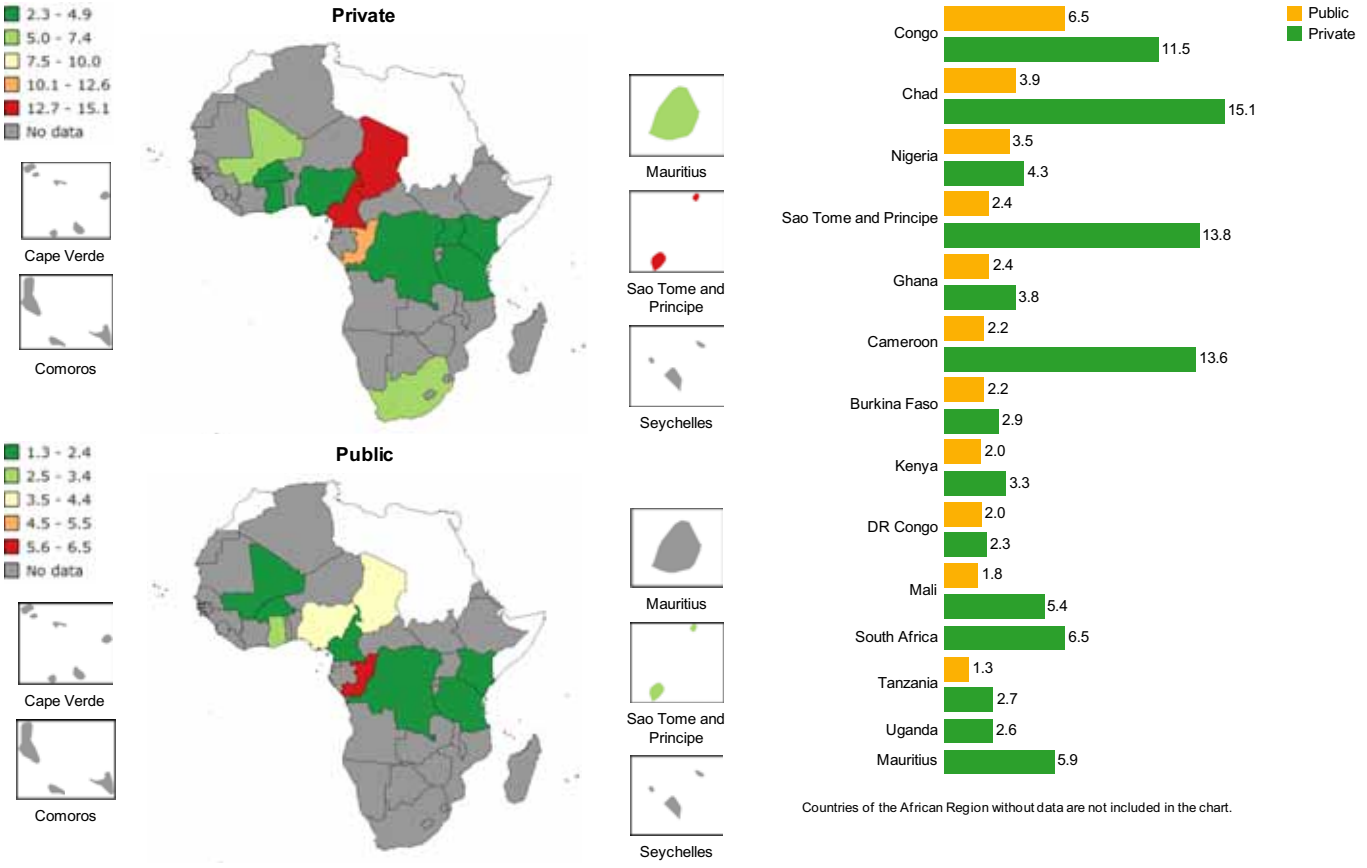
Source : WHO, May 2013

Figure 3.9.5: Median percentage availability of selected generic medicines in a sample of health facilities in the African Region, countries with data in 2001-2009



Countries of the African Region without data are not included in the chart.

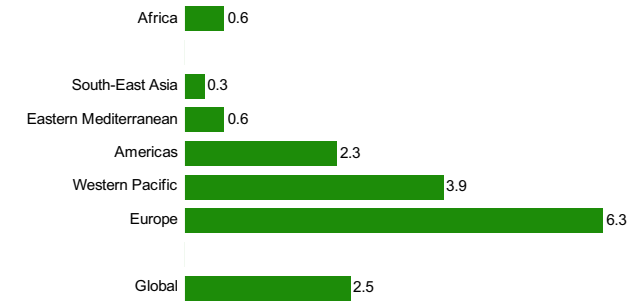
Figure 3.9.6: Median consumer price ratio of selected generic medicines (ratio of median local unit price to management sciences for health international reference price), countries with data, 2001-2009



Countries of the African Region without data are not included in the chart.

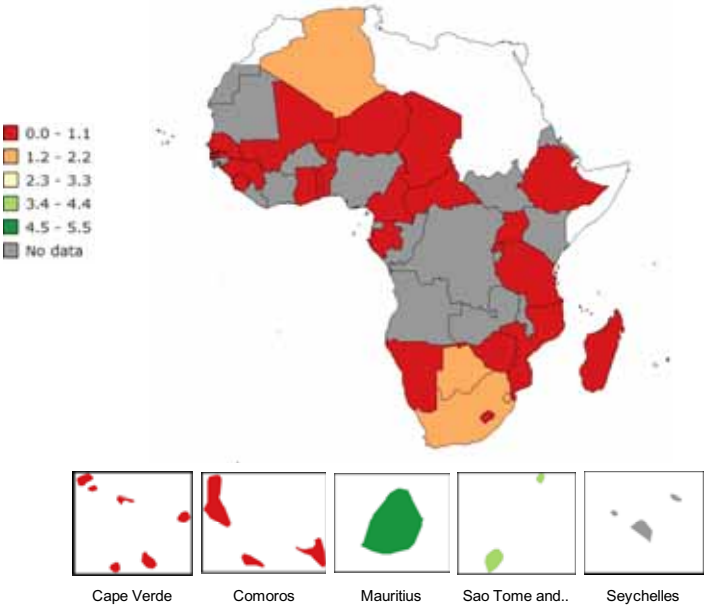
Source : WHO, May 2013

Figure 3.9.7: Psychiatric beds (per 10 000 population) in the WHO Regions, 2005-2010



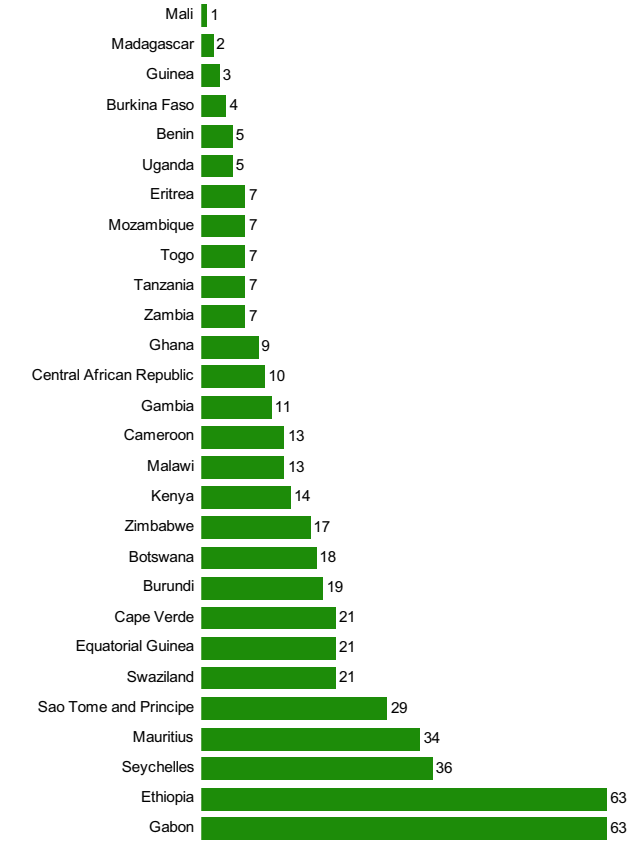
Source : WHO, 2013

Figure 3.9.8: Psychiatric beds (per 10 000 population) in the African Region, 2005-2010



Source : WHO, 2013

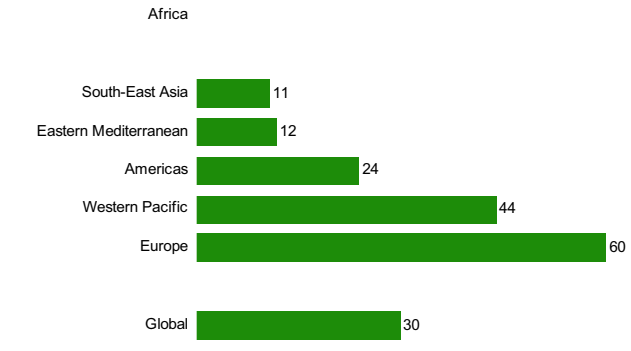
Figure 3.9.9: Hospital beds per 10 000 population in the African Region, 2005–2012



Countries of the African Region without data are not included in the chart.

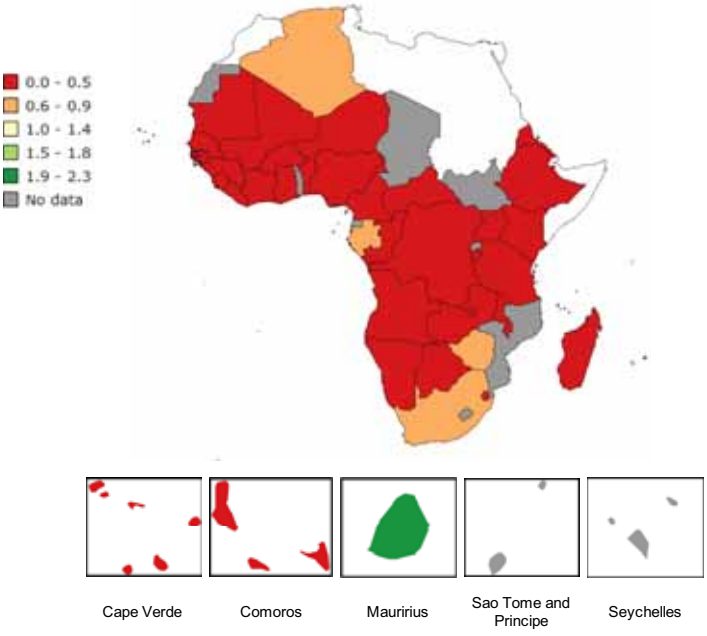
Source : WHO, 2013

Figure 3.9.10: Hospital beds per 10 000 population by WHO Region, 2005–2012



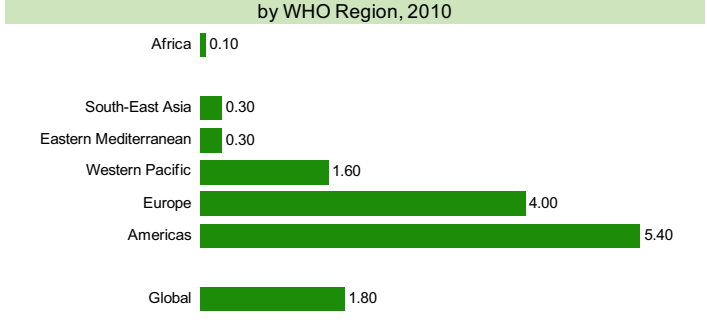
Source : WHO, 2013

Figure 3.9.11: Radiotherapy units per 1 000 000 population in the African Region, 2010



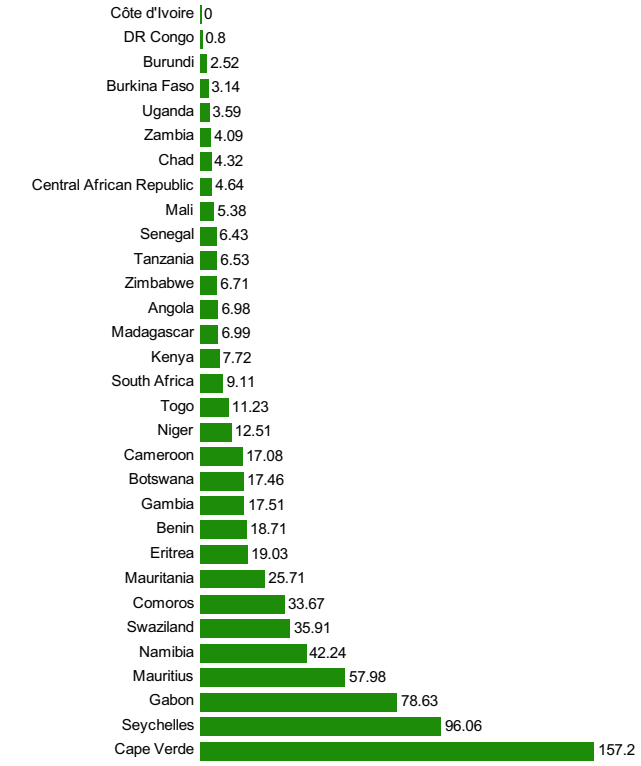
Source : WHO, 2013

Figure 3.9.12: Radiotherapy units per 1 000 000 population by WHO Region, 2010



Source : WHO, 2013

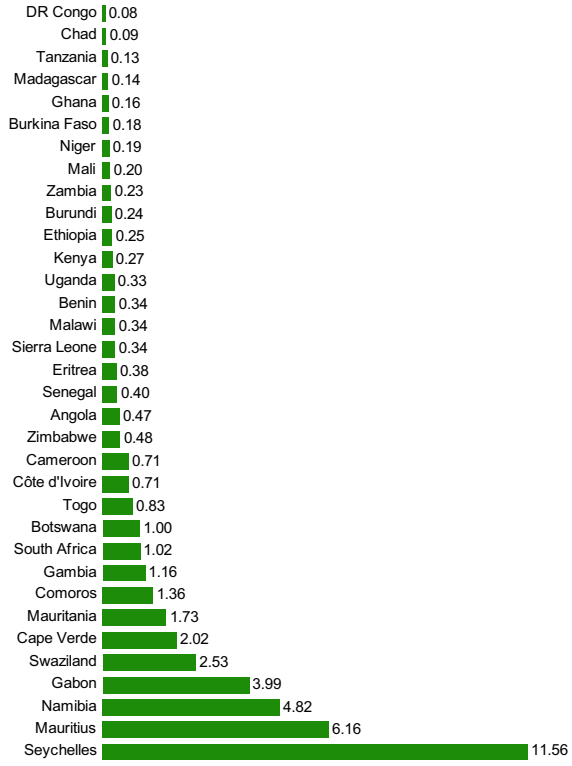
Figure 3.9.13: Density of mammographs in 2010 (per million females aged between 50 and 69 years old) in the African Region



Countries of the African Region without data are not included in the chart.

Source : WHO, May 2013

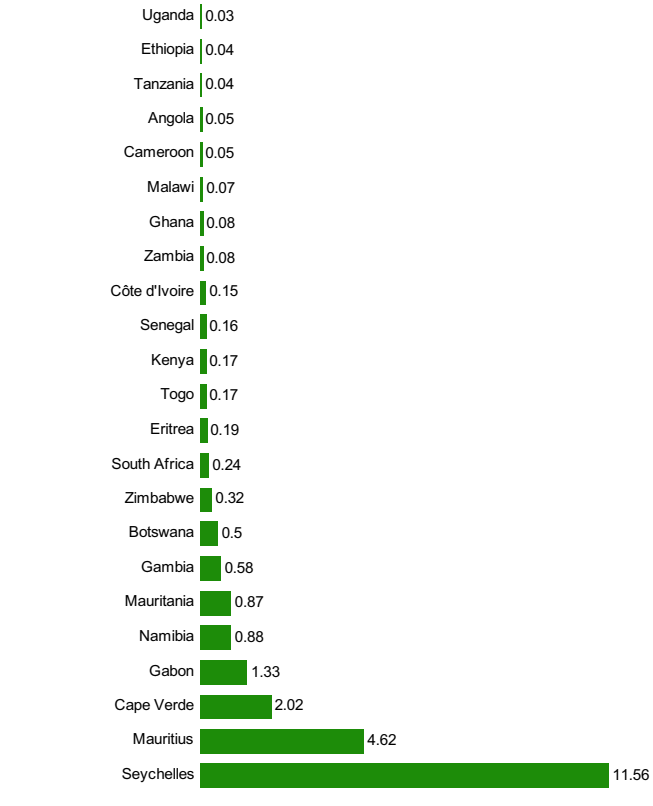
Figure 3.9.14: Density of computed tomography units in 2010 (per million population) in the African Region



Countries of the African Region without data are not included in the chart.

Source : WHO, May 2013

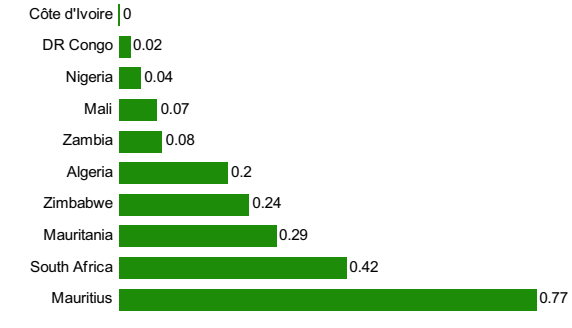
Figure 3.9.15: Density of magnetic resonance imaging units 2010 (per million population) in the African Region



Countries of the African Region without data are not included in the chart.

Source : WHO, May 2013

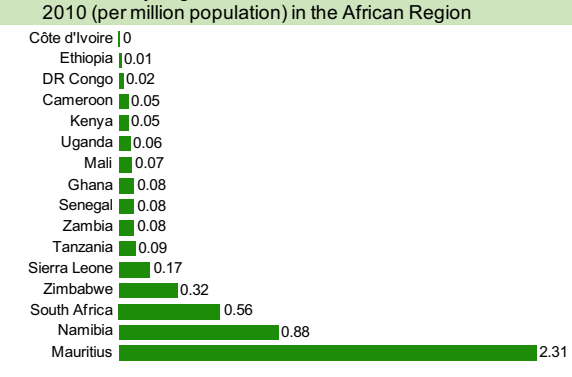
Figure 3.9.16: Density of linear accelerator units in 2010 (per million population) in the African Region



Countries of the African Region without data are not included in the chart.

Source : WHO, May 2013

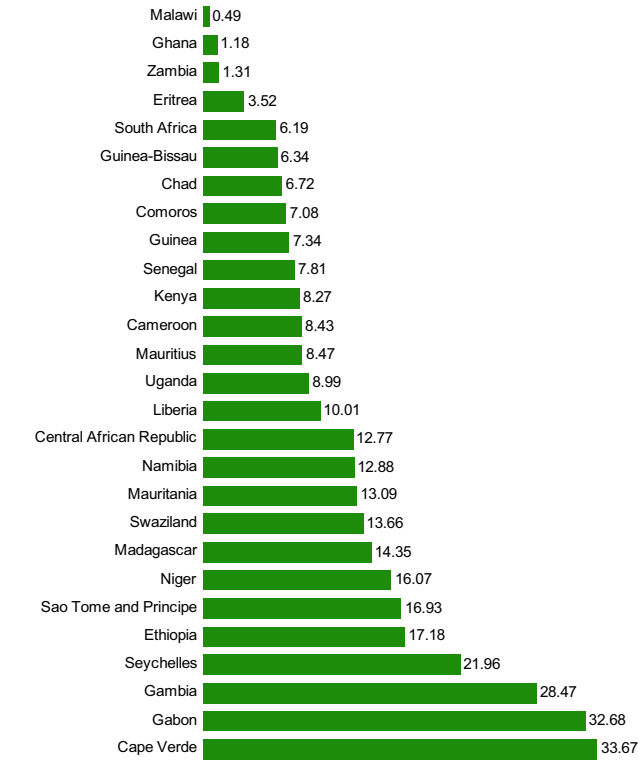
Figure 3.9.17: Density of gamma camera or nuclear medicine units in 2010 (per million population) in the African Region



Countries of the African Region without data are not included in the chart.

Source : WHO, May 2013

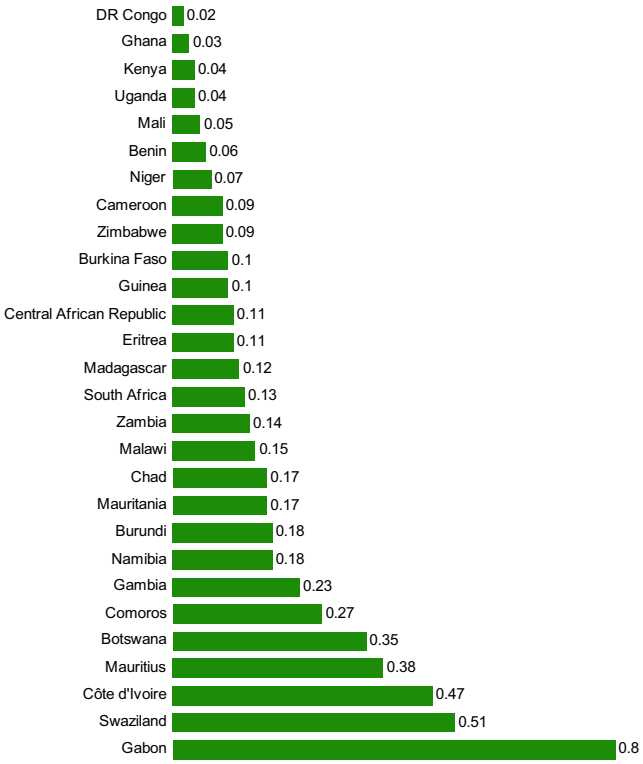
Figure 3.9.18: Density of health posts in 2010 (per 100 000 population) in the African Region



Countries of the African Region without data are not included in the chart.

Source : WHO, May 2013

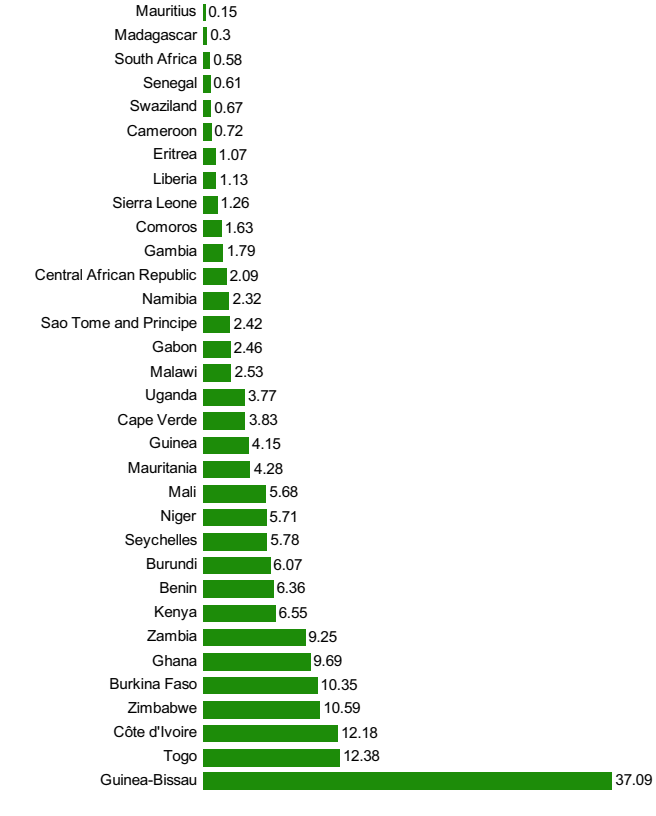
Figure 3.9.19: Density of provincial hospitals in 2010 (per 100 000 population) in the African Region



Countries of the African Region without data are not included in the chart.

Source : WHO, May 2013

Figure 3.9.20: Density of health centres in 2010 (per 100 000 population) in the African Region



Countries of the African Region without data are not included in the chart.

Source : WHO, May 2013

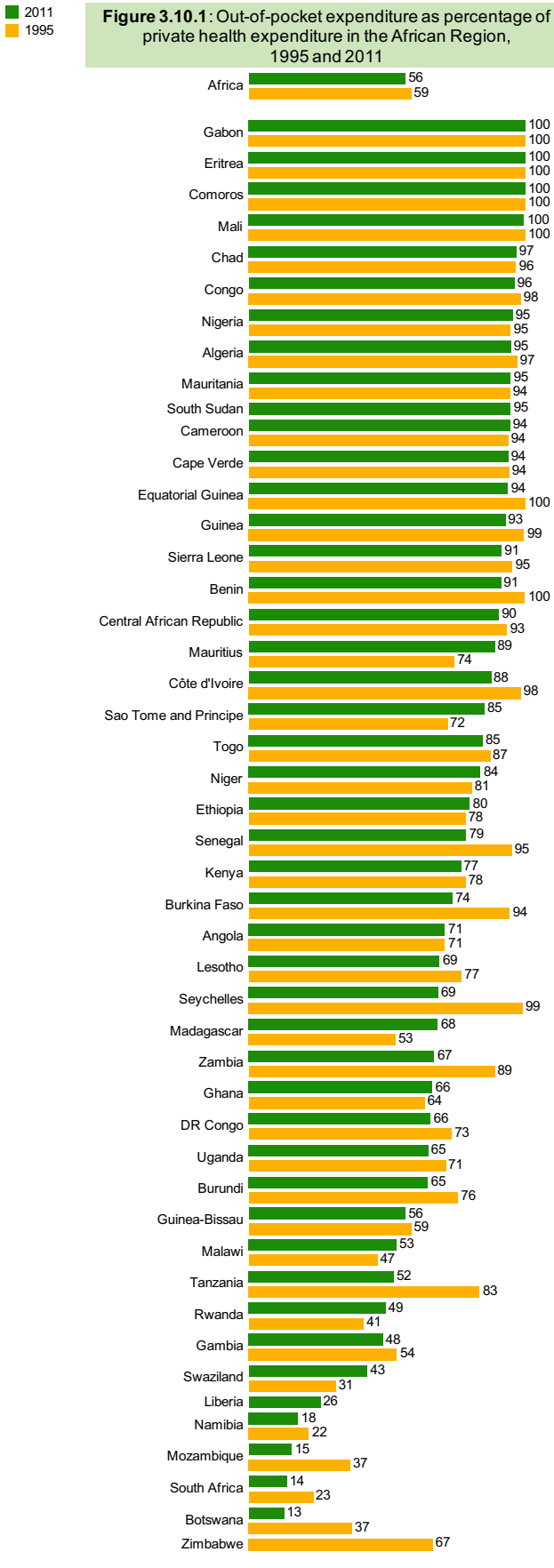
Figure 3.9.21: Density of district/rural hospitals in 2010 (per 100 000 population) in the African Region

Countries of the African Region without data are not included in the chart.

Source : WHO, May 2013

3.10. Universal coverage

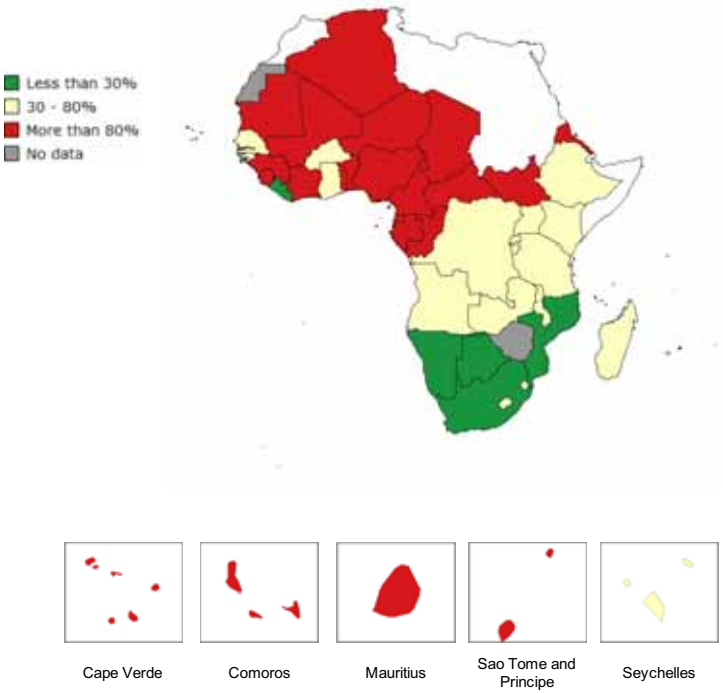
Figure 3.10.1: Out-of-pocket expenditure as percentage of private health expenditure in the African Region, 1995 and 2011



Countries of the African Region without data are not included in the chart.

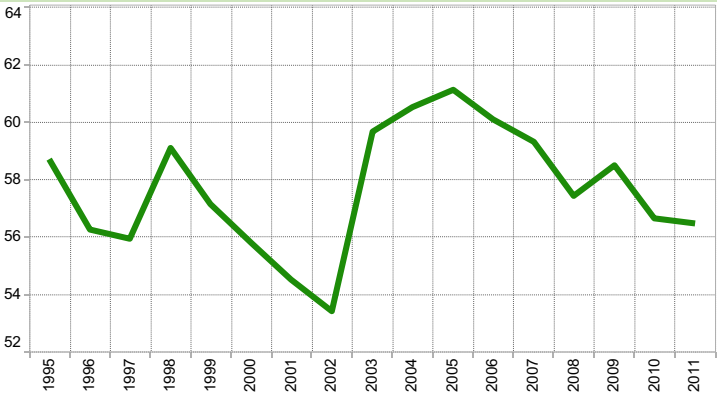
Source : WHO, May 2013

Figure 3.10.2: Out-of-pocket expenditure as percentage of private health expenditure in the African Region, 2011



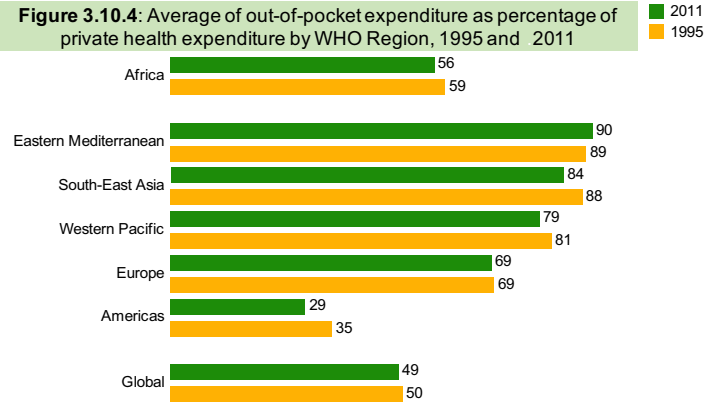
Source : WHO, May 2013

Figure 3.10.3: Trend in average of out-of-pocket expenditure as percentage of private health expenditure in the African Region, 1995 to 2011



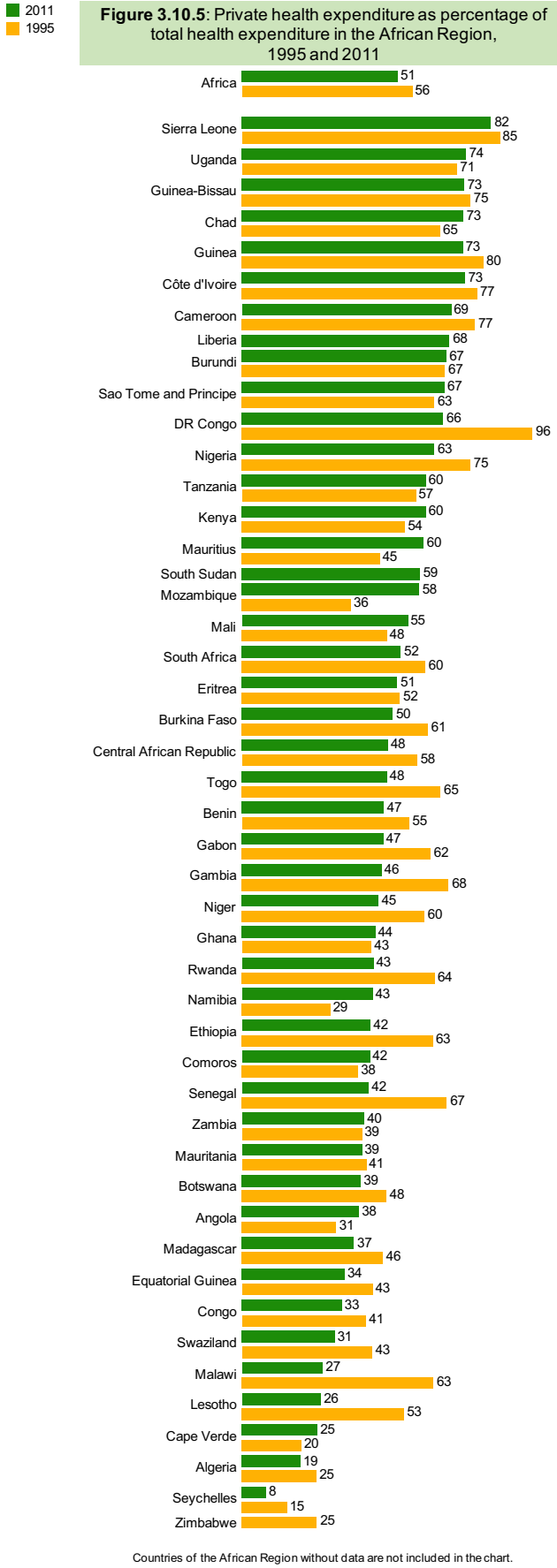
Source : WHO, May 2013

Figure 3.10.4: Average of out-of-pocket expenditure as percentage of private health expenditure by WHO Region, 1995 and 2011



Source : WHO, May 2013

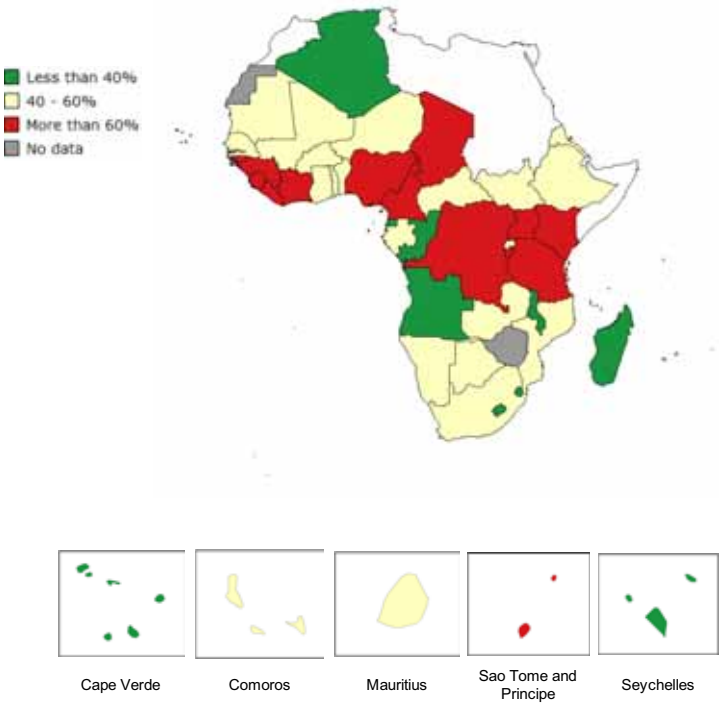
Figure 3.10.5: Private health expenditure as percentage of total health expenditure in the African Region, 1995 and 2011



Countries of the African Region without data are not included in the chart.

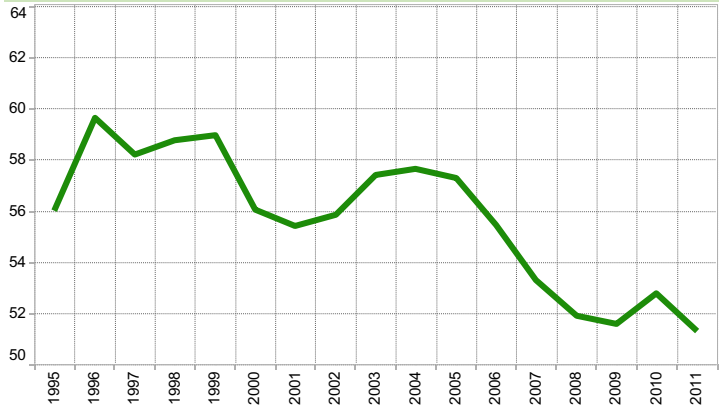
Source : WHO, May 2013

Figure 3.10.6: Private health expenditure as percentage of total health expenditure in the African Region, 2011



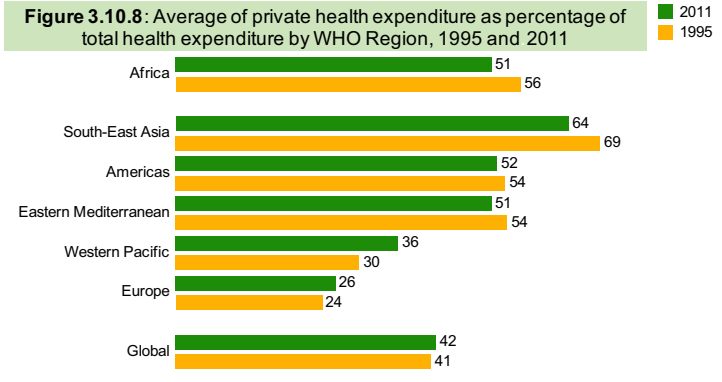
Source : WHO, May 2013

Figure 3.10.7: Trend in average of private health expenditure as percentage of total health expenditure in the African Region, 1995 to 2011



Source : WHO, May 2013

Figure 3.10.8: Average of private health expenditure as percentage of total health expenditure by WHO Region, 1995 and 2011

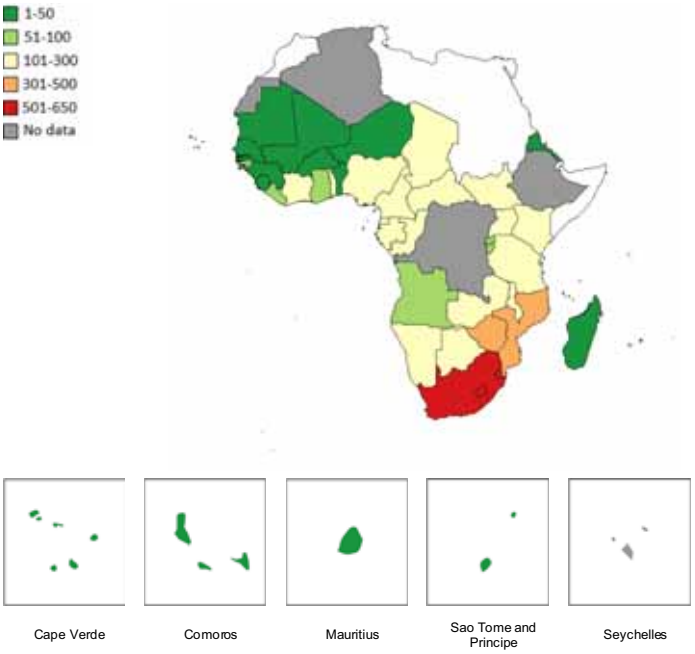


Source : WHO, May 2013

4. Specific programmes and services

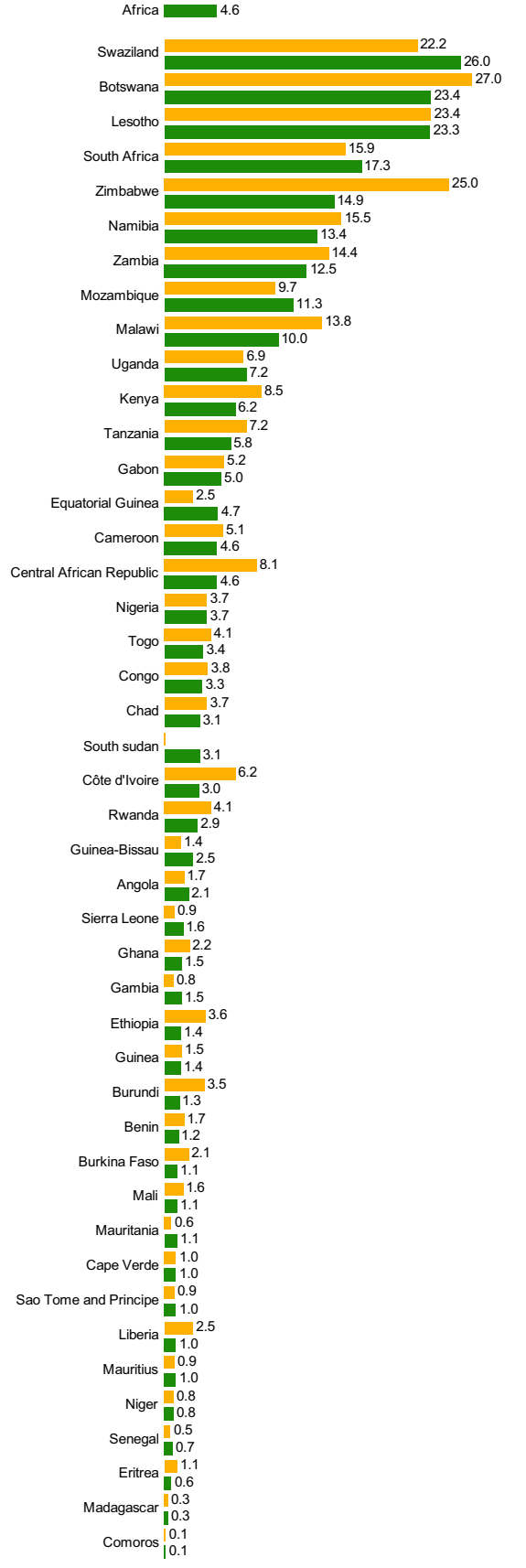
4.1 HIV/AIDS

Figure 4.1.1: HIV/AIDS mortality rate (per 100 000 population) in the African Region, 2011



Source: WHO, November 2013.

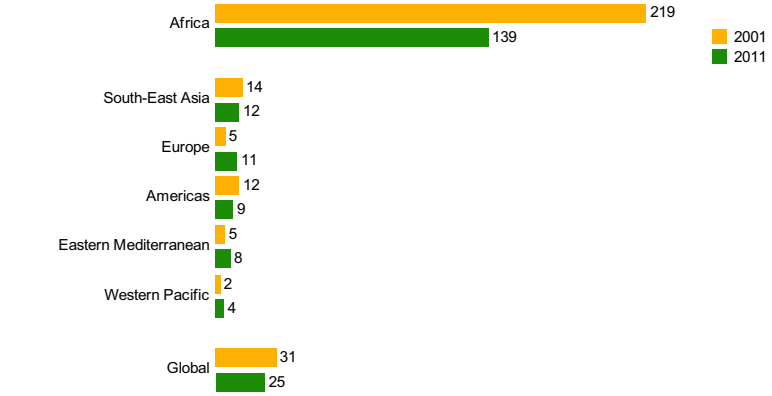
Figure 4.1.2: Prevalence of HIV (%) among adults aged 15 to 49 years in the African Region, 2001 and 2011



Countries of the African Region without data are not included in the chart.

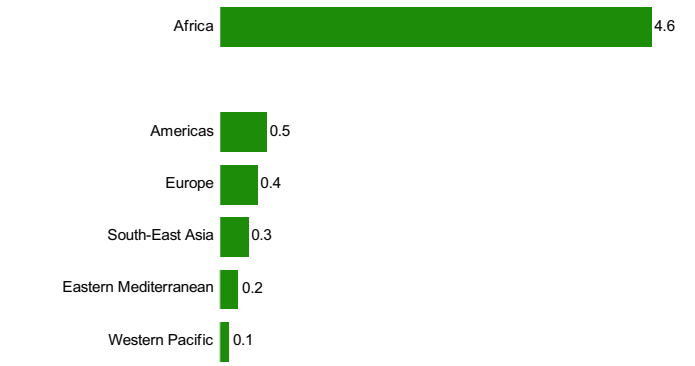
Source: WHO, November 2013.

Figure 4.1.3: HIV/AIDS mortality rate (per 100 000 population) by WHO Region, 2001 and 2011



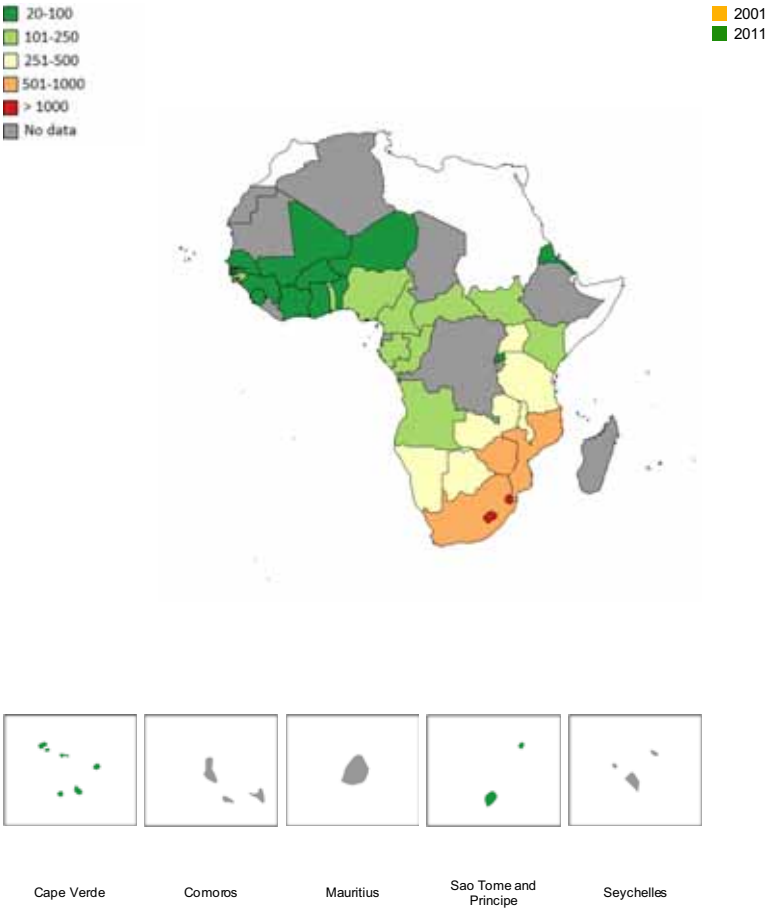
Source: WHO, November 2013.

Figure 4.1.4: Prevalence of HIV (%) among adults aged 15 to 49 years by WHO Region, 2011



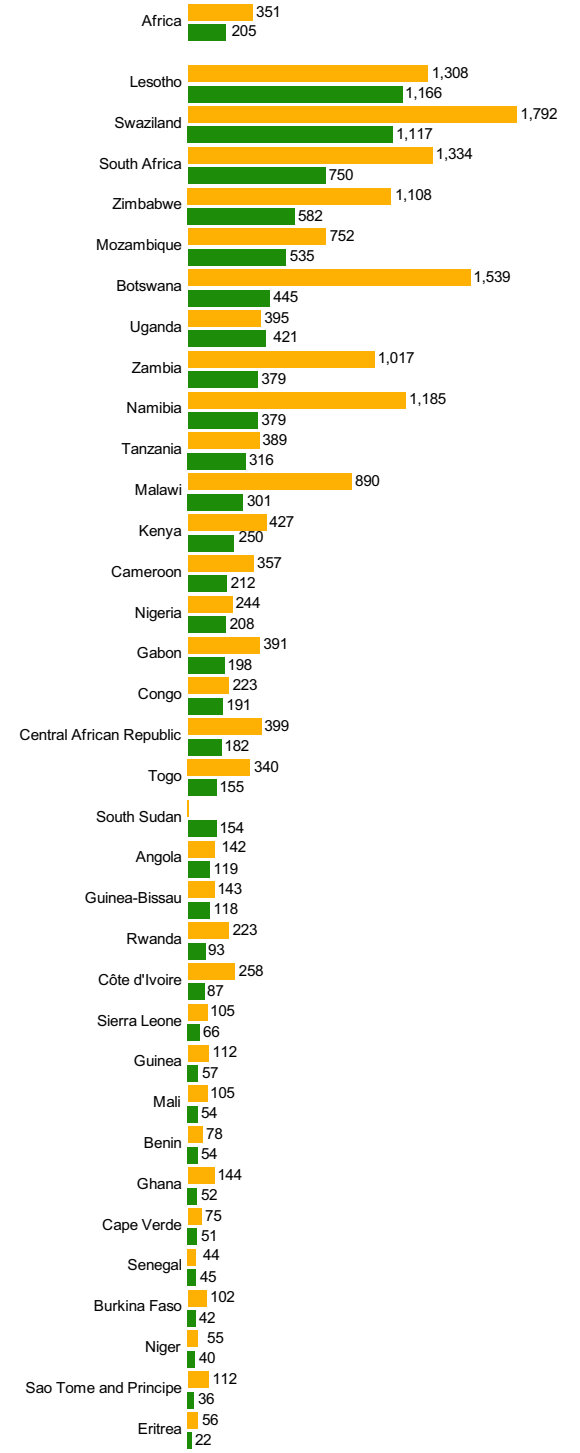
Source: WHO, November 2013.

Figure 4.1.5: HIV/AIDS incidence rate (per 100 000 population) in the African Region, 2011



Source: WHO, November 2013.

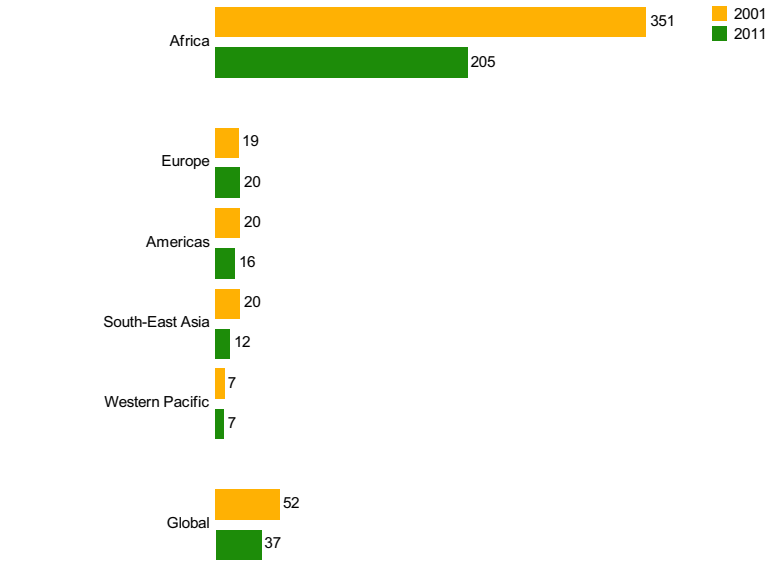
Figure 4.1.6: HIV/AIDS incidence rate (per 100 000 population) in the African Region, 2001 and 2011



Countries of the African Region without data are not included in the chart.

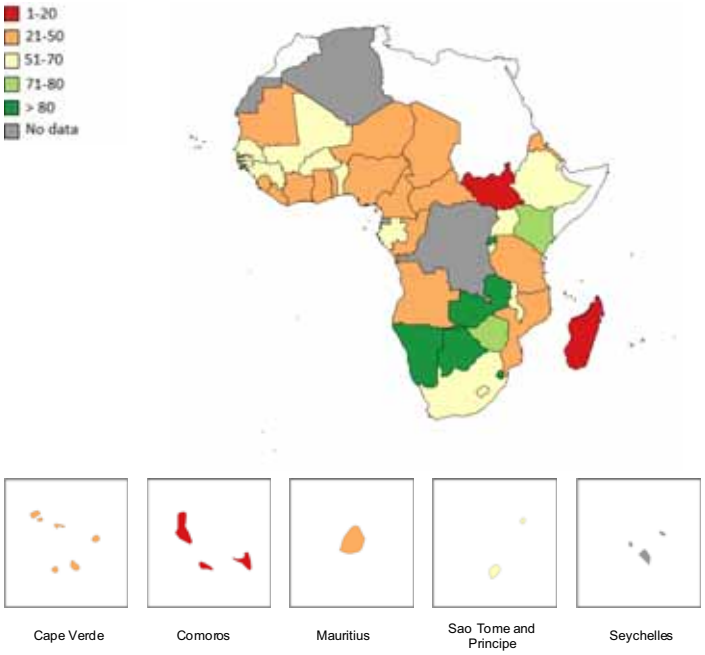
Source: WHO, November 2013.

Figure 4.1.7: HIV/AIDS incidence rate (per 100 000 population) by WHO Region, 2001 and 2011



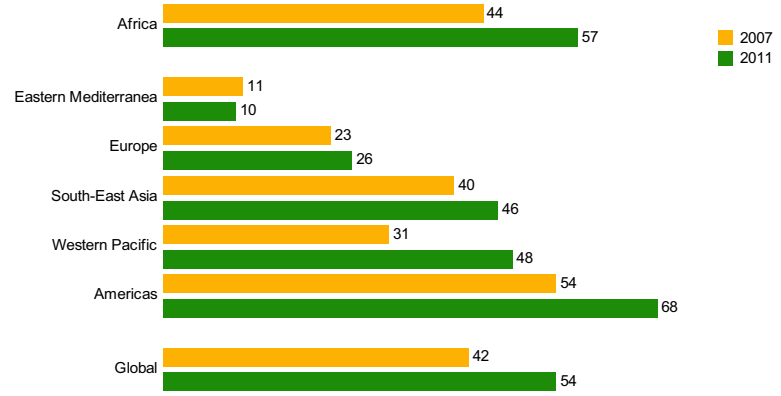
Source: WHO, November 2013.

Figure 4.1.8: Percentage of people with advanced HIV infection receiving antiretroviral (ARV) combination therapy in the African Region, 2011



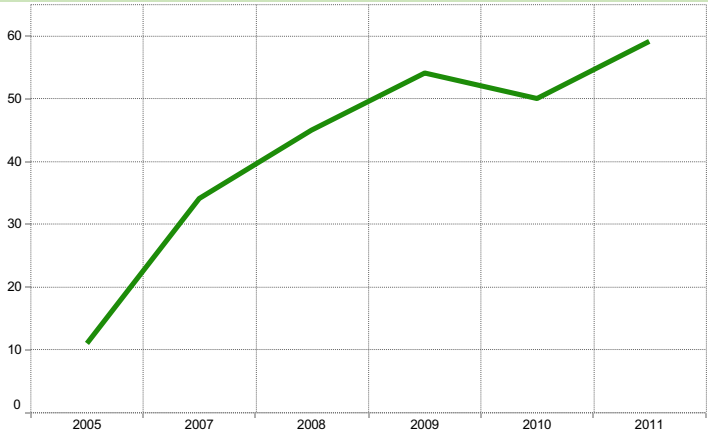
Source: WHO, November 2013.

Figure 4.1.10: Percentage of people with advanced HIV infection receiving antiretroviral (ARV) combination by WHO Region, 2007 and 2011



Source: WHO, November 2013.

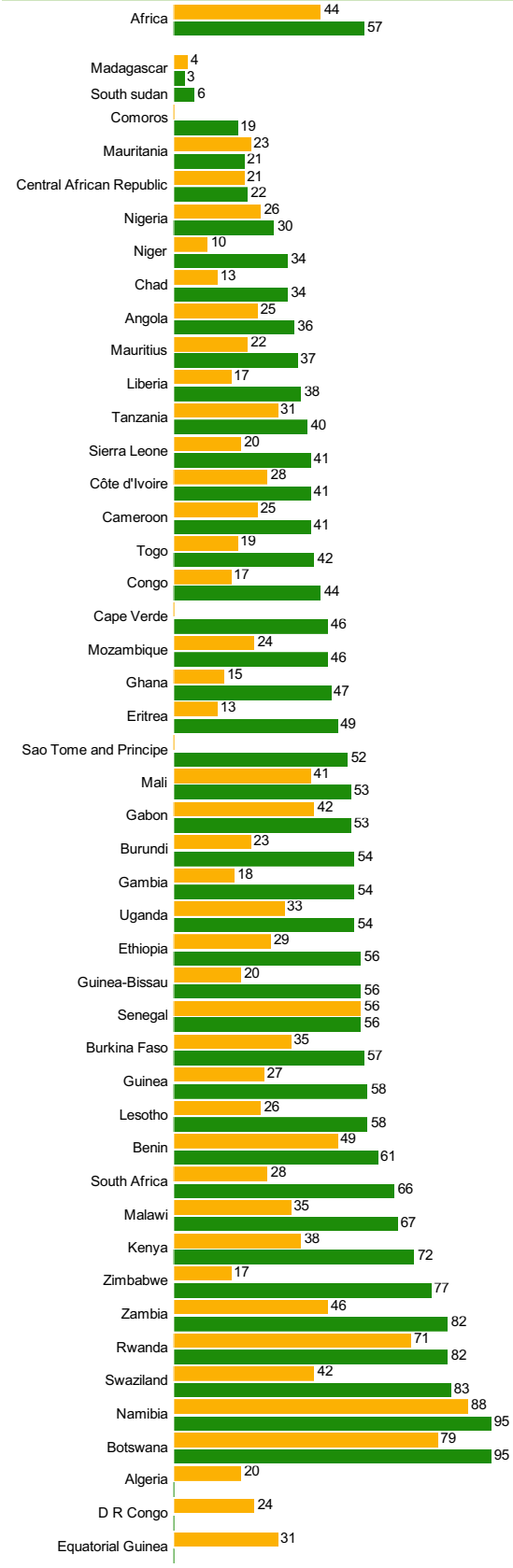
Figure 4.1.11: Trend in antiretroviral therapy coverage (%) among HIV-infected pregnant women for PMTCT* in the African Region, from 2005 to 2011



Source: WHO, November 2013.

*Prevention of mother-to-child transmission

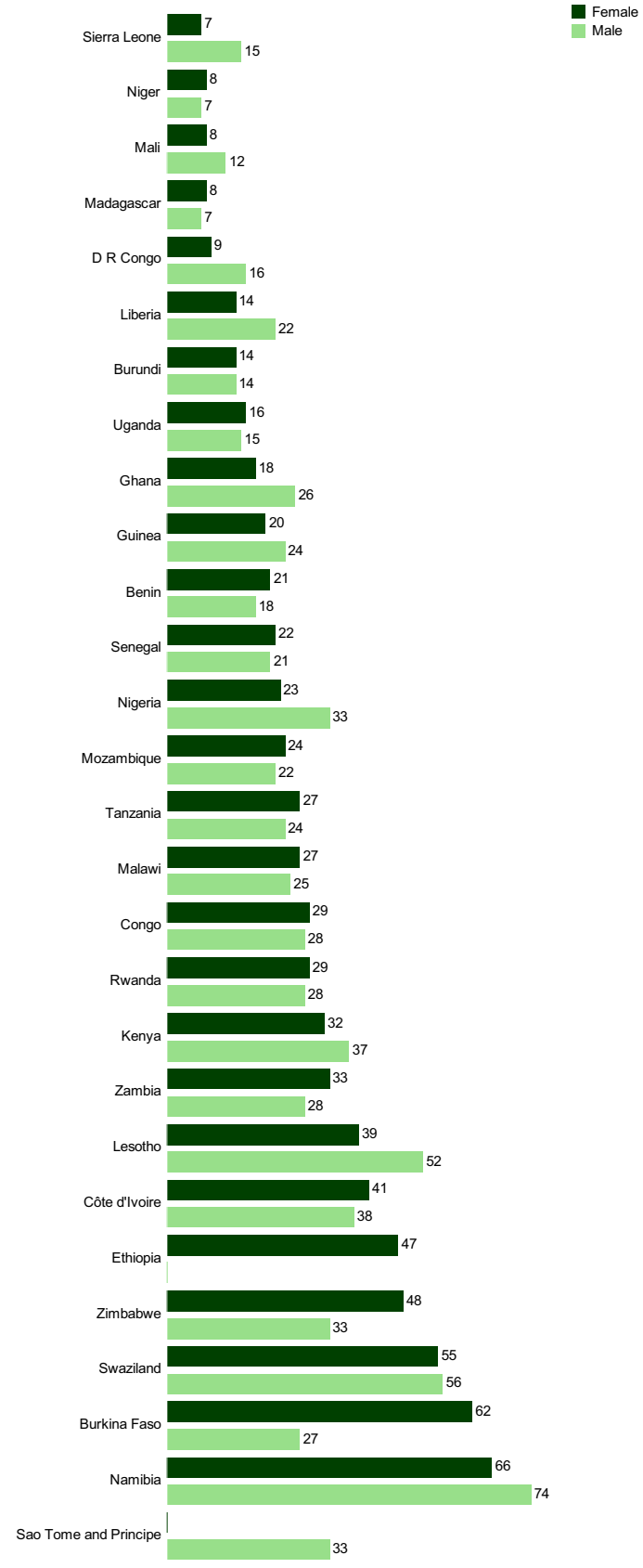
Figure 4.1.9: Percentage of people receiving antiretroviral therapy in the African Region, 2007 and 2011



Countries of the African Region without data are not included in the chart.

Source: WHO, November 2013.

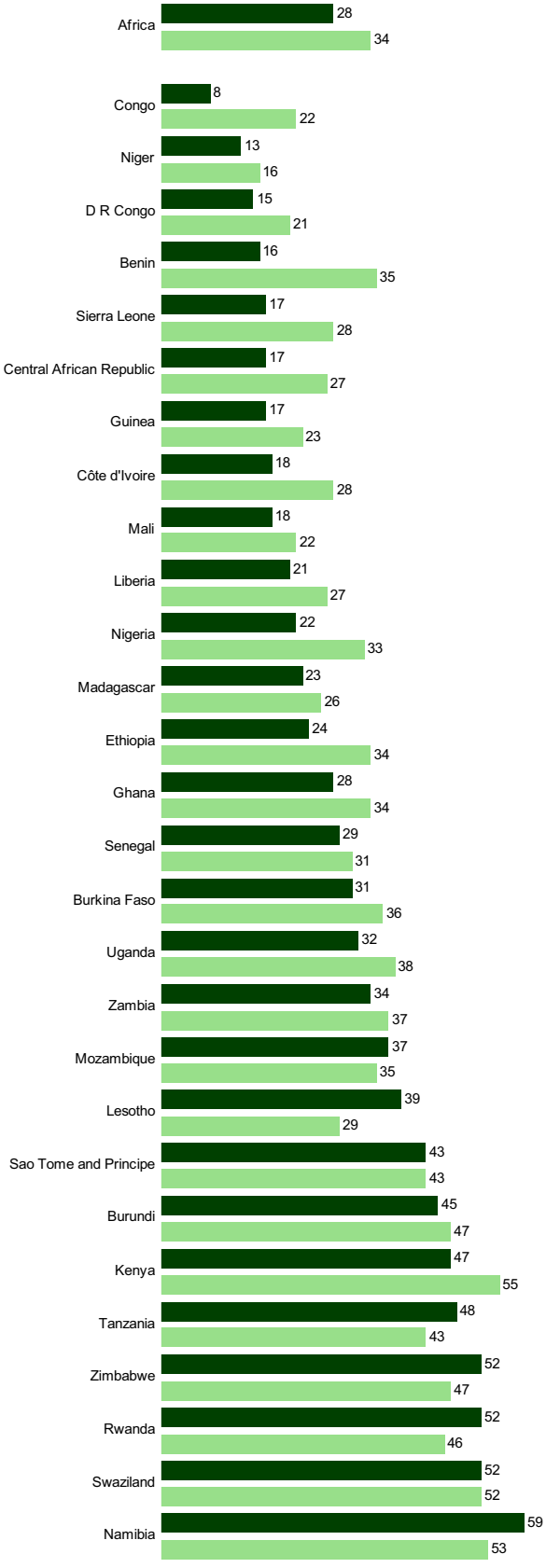
Figure 4.1.12: Prevalence of condom use (%) by adults aged 15 to 49 years during higher-risk sex in the African Region, by sex, between 2005 and 2011



Countries of the African Region without data are not included in the chart.

Source: WHO, November 2013.

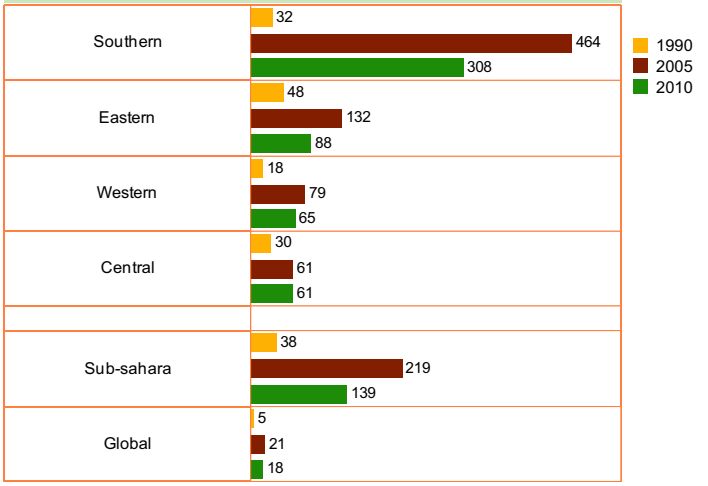
Figure 4.1.13: Population aged 15 to 24 years with comprehensive knowledge of HIV/AIDS (%) in the African Region, by sex, between 2005 and 2011



Countries of the African Region without data are not included in the chart.

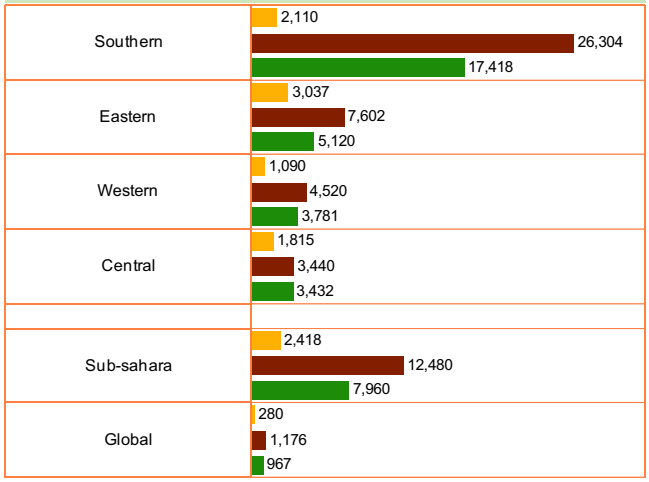
Source: WHO, November 2013.

Figure 4.1.14: HIV/AIDS Mortality rate per 100 000 in 1990, 2005 and 2010, by sub-Saharan region



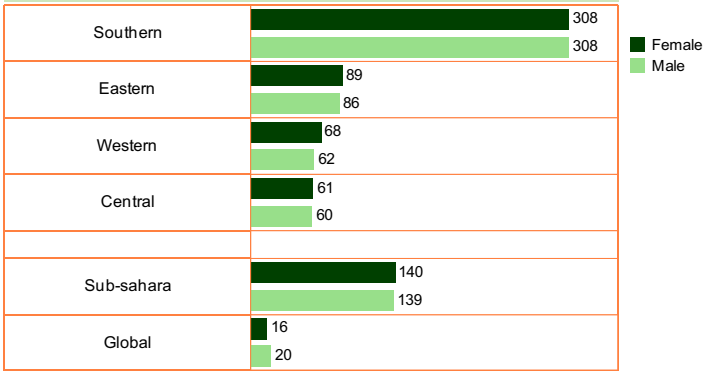
Source: IHME, May 2013

Figure 4.1.15: HIV/AIDS Disability Adjusted Life Years (DALY) rate per 100 000 in 1990, 2005 and 2010, by sub-Saharan region



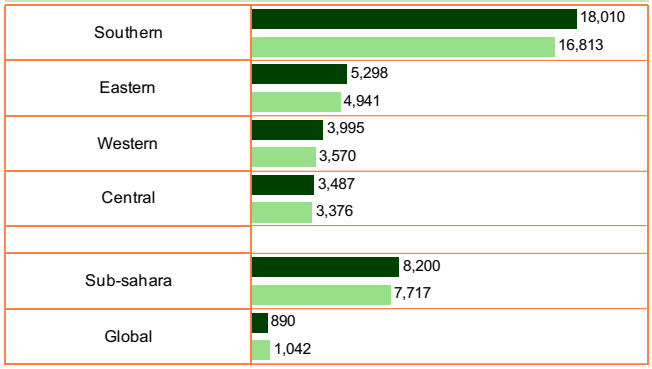
Source: IHME, May 2013

Figure 4.1.16: HIV/AIDS Mortality rate per 100 000 in 2010, by sub-Saharan region and by sex



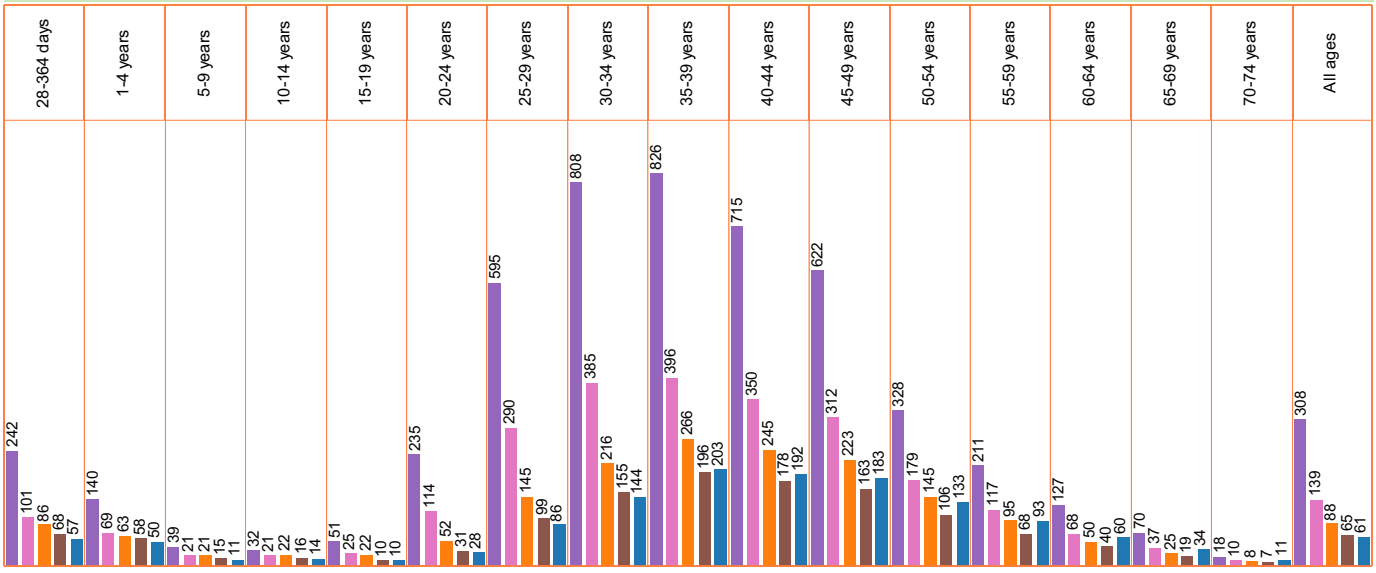
Source: IHME, May 2013

Figure 4.1.17: HIV/AIDS Disability Adjusted Life Years per 100 000 in 2010, by sub-Saharan region and sex



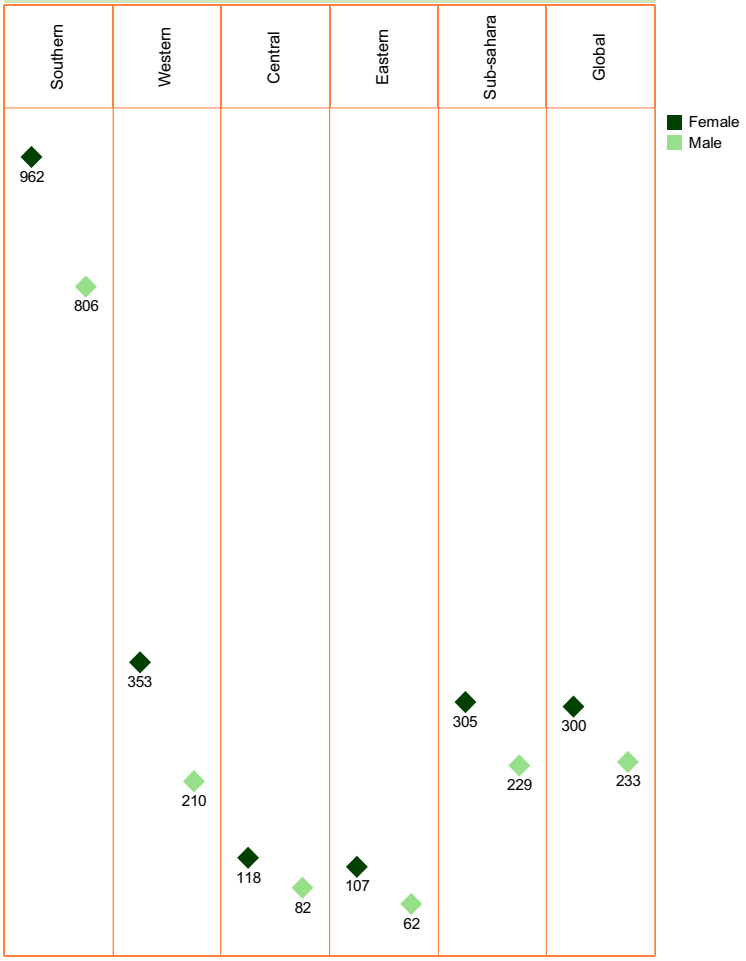
Source: IHME, May 2013

Figure 4.1.18: HIV/AIDS Mortality rate per 100 000 in 2010, by age and by sub-Saharan region



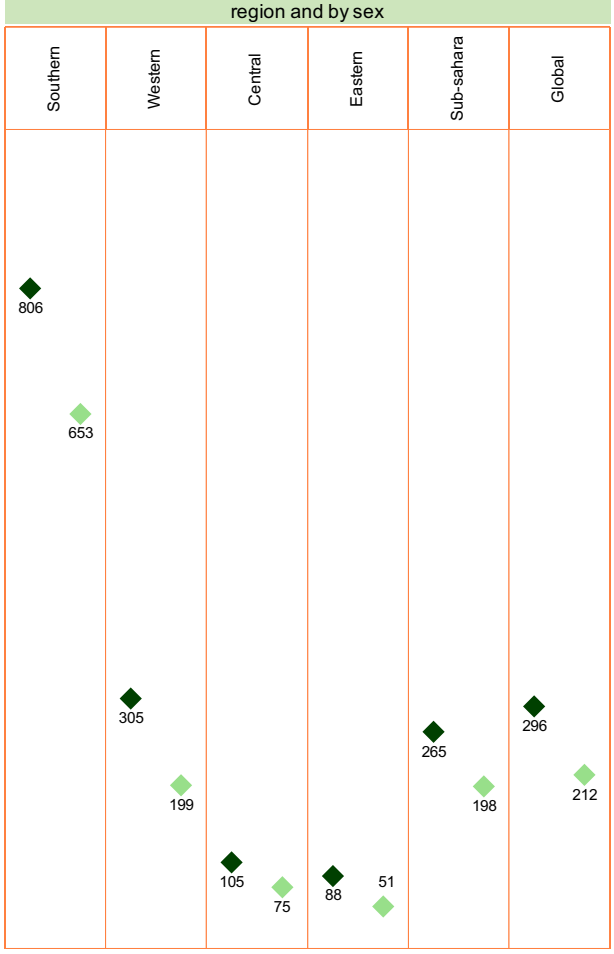
Source: IHME, May 2013

Figure 4.1.19: Percentage change in HIV/AIDS Mortality rate between 1990 and 2010, by sub-Saharan region and by sex



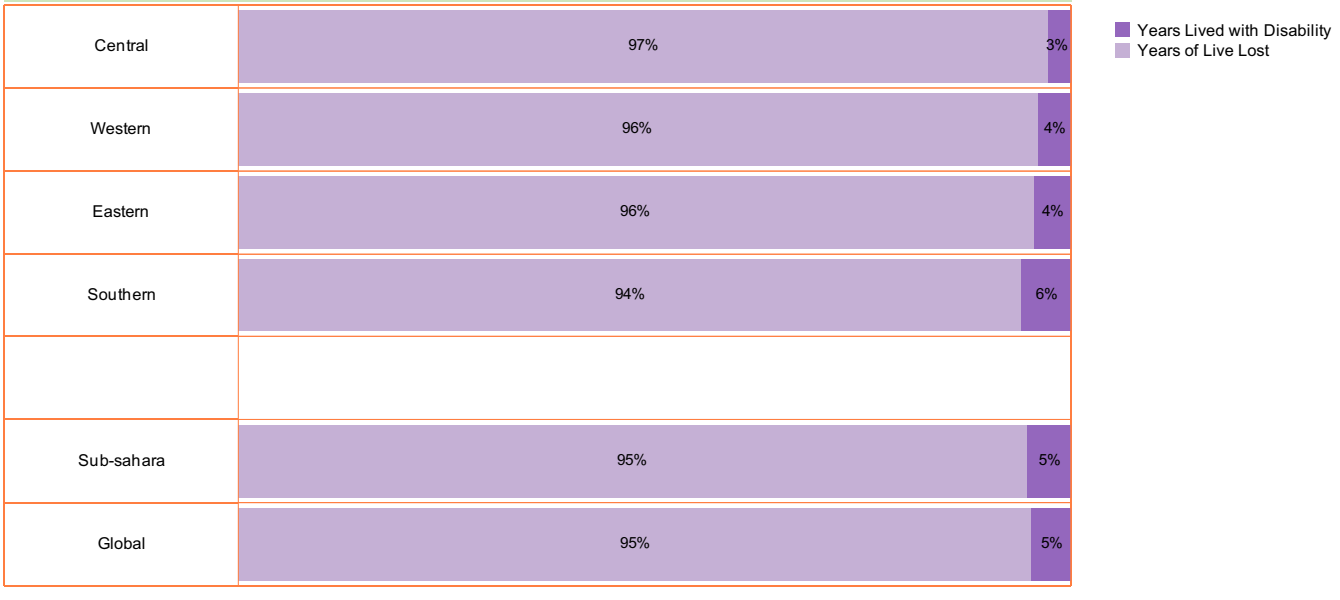
Source: IHME, May 2013

Figure 4.1.20: Percentage change in HIV/AIDS Disability Adjusted Life Years (DALY) rate between 1990 and 2010, by sub-Saharan region and by sex



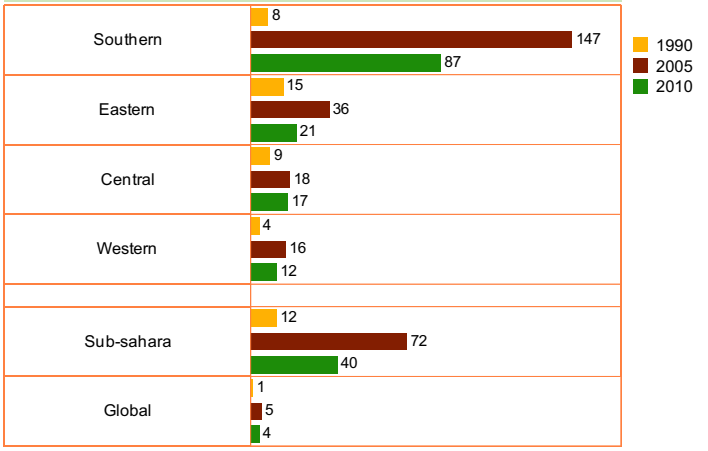
Source: IHME, May 2013

Figure 4.1.21: Percentage distribution of HIV/AIDS Disability Adjusted Life Years rate by main components in 2010, by sub-Saharan region



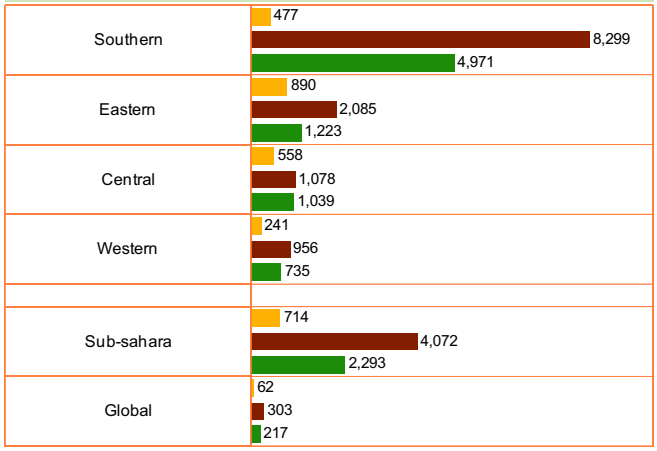
Source: IHME, May 2013

Figure 4.1.22: Mortality rate due to HIV disease resulting mycobacterial infection per 100 000 in 1990, 2005 and 2010, by sub-Saharan region



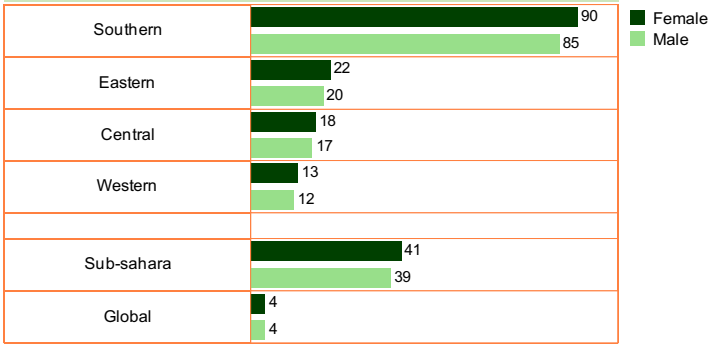
Source: IHME, May 2013

Figure 4.1.23: Disability Adjusted Life Years (DALY) rate due to HIV disease resulting in mycobacterial infection per 100 000 in 1990, 2005 and 2010, by sub-Saharan region



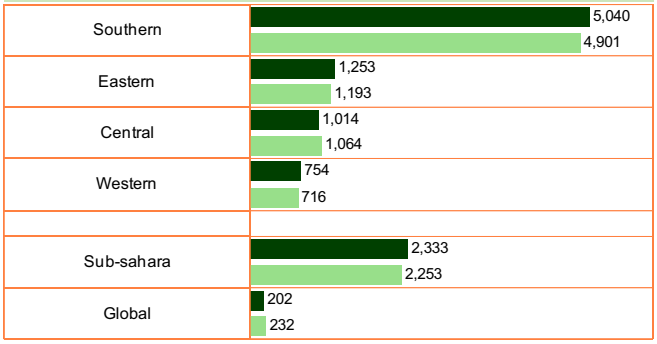
Source: IHME, May 2013

Figure 4.1.24: Mortality rate due to HIV disease resulting in mycobacterial infection per 100 000 in 2010, by sub-Saharan region and by sex



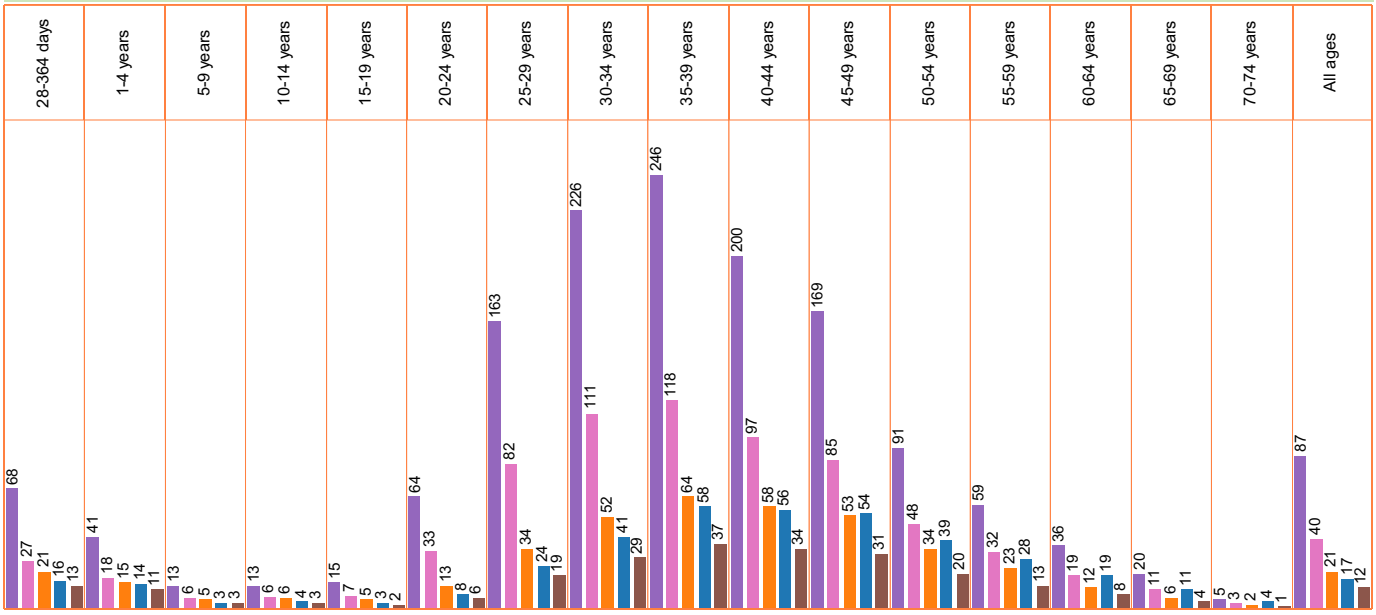
Source: IHME, May 2013

Figure 4.1.25: Disability Adjusted Life Years (DALY) due to HIV disease resulting in mycobacterial infection per 100 000 in 2010, by sub-Saharan region and by sex



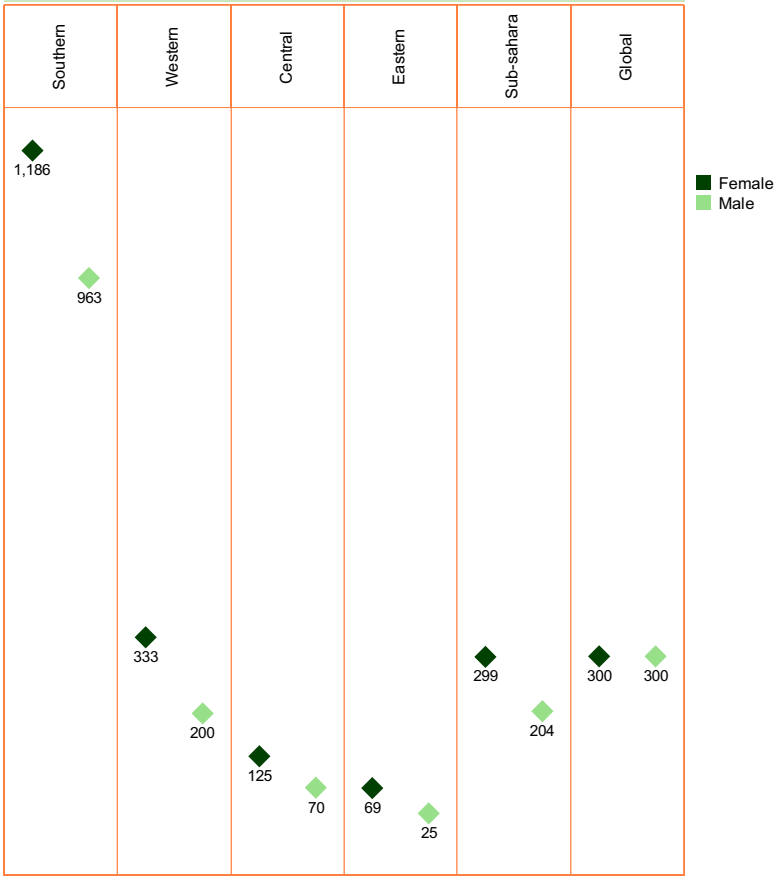
Source: IHME, May 2013

Figure 4.1.26: Mortality rate due to HIV disease resulting in mycobacterial infection per 100 000 in 2010, by age and by sub-Saharan region



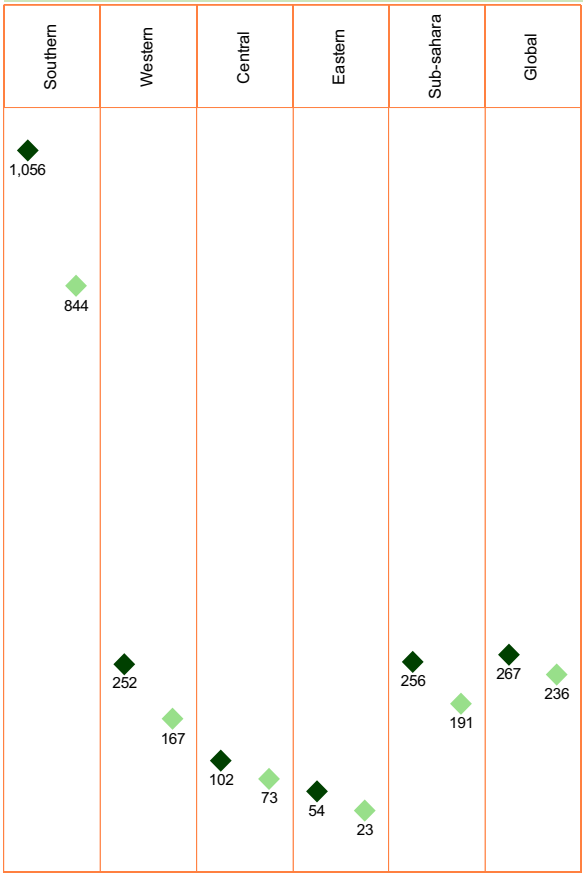
Source: IHME, May 2013

Figure 4.1.27: Percentage change in mortality rate due to HIV disease resulting in mycobacterial infection between 1990 and 2010, by sub-Saharan region and by sex



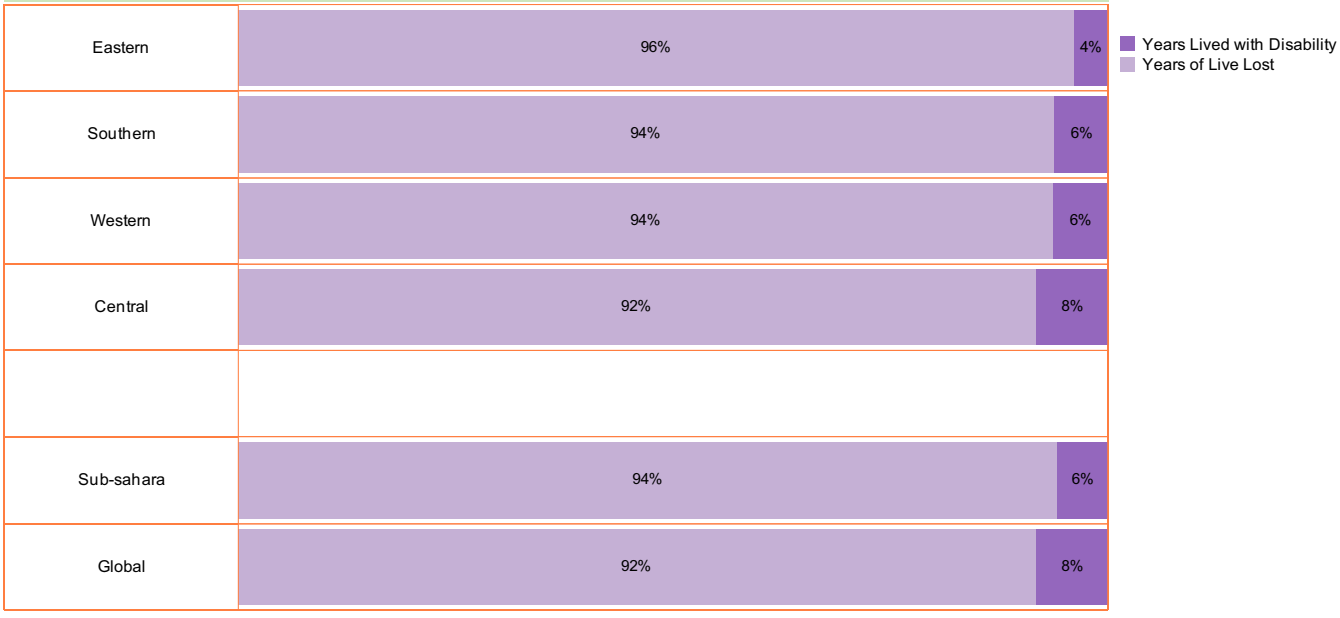
Source: IHME, May 2013

Figure 4.1.28: Percentage change in Disability Adjusted Life Years (DALY) rate due to HIV disease resulting in mycobacterial infection between 1990 and 2010, by sub-Saharan region and by sex



Source: IHME, May 2013

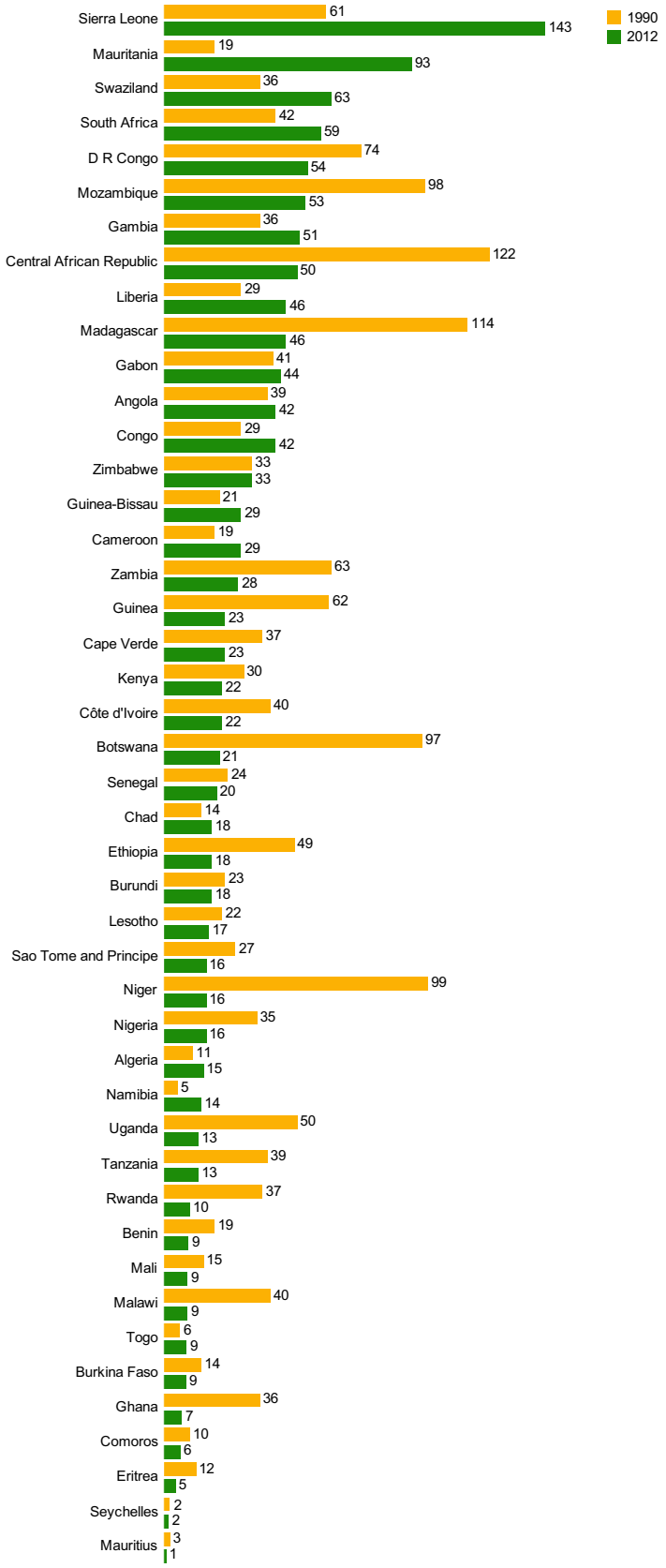
Figure 4.1.29: Percentage distribution of Disability Adjusted Life Years rate due to HIV resulting in mycobacterial infection by main components in 2010, by sub-Saharan region



Source: IHME, May 2013

4.2 Tuberculosis

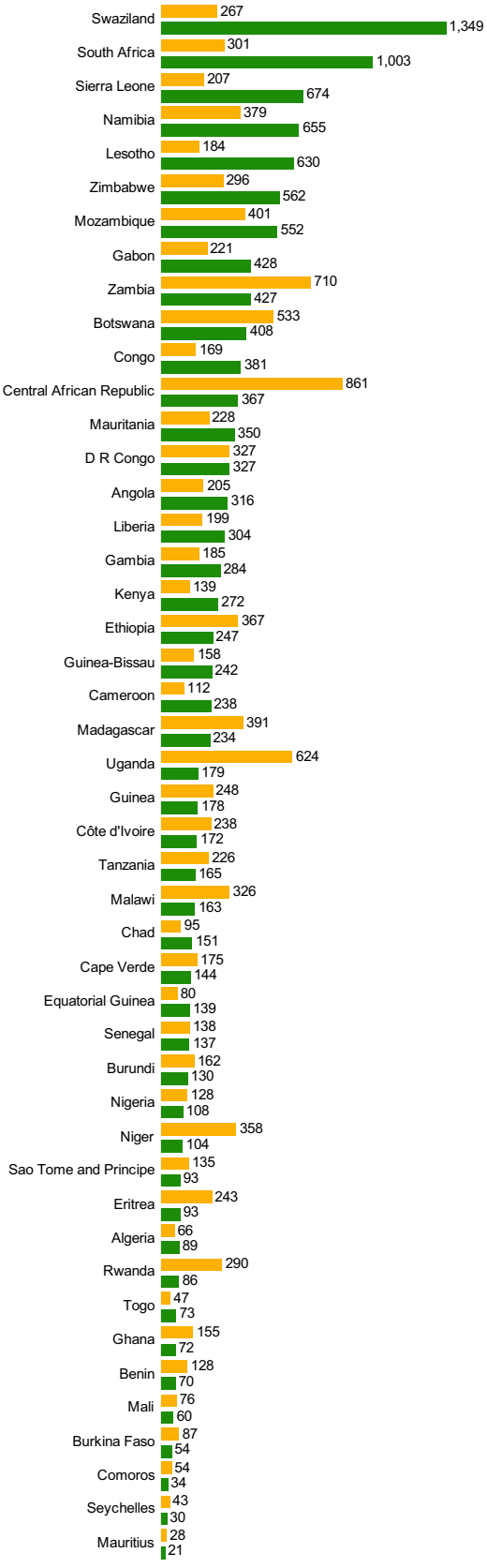
Figure 4.2.1: Tuberculosis mortality rate (per 100 000 population per year) among HIV-negative people in the African Region, 1990 and 2012



Countries of the African Region without data are not included in the chart.

Source: WHO, November 2013.

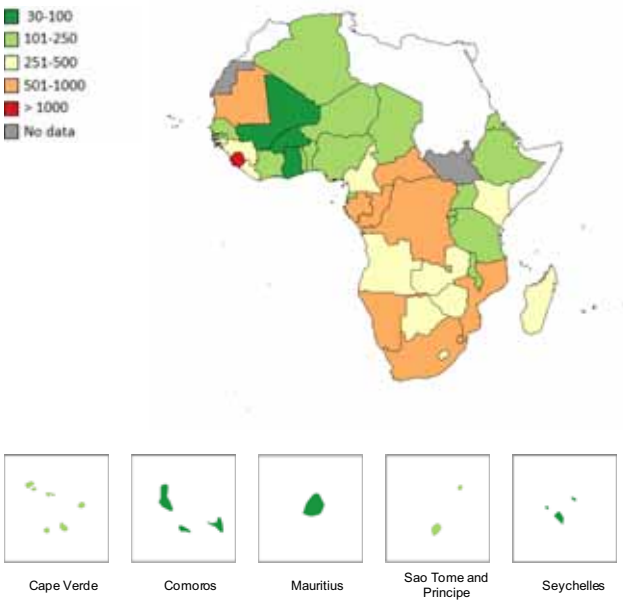
Figure 4.2.2: Tuberculosis incidence rate (per 100 000 population per year) in the African Region, 1990 and 2012



Countries of the African Region without data are not included in the chart.

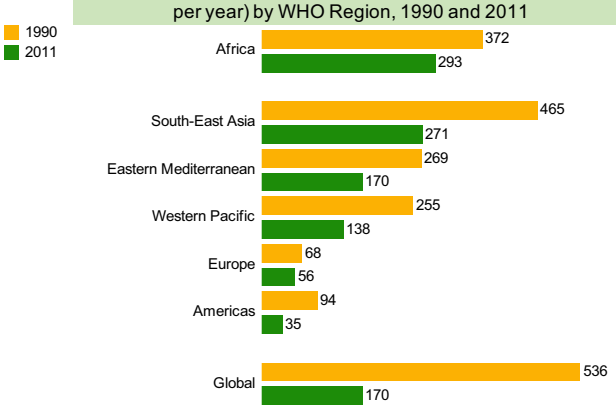
Source: WHO, November 2013.

Figure 4.2.3: Tuberculosis prevalence (per 100 000 population per year) in the African Region, 2012



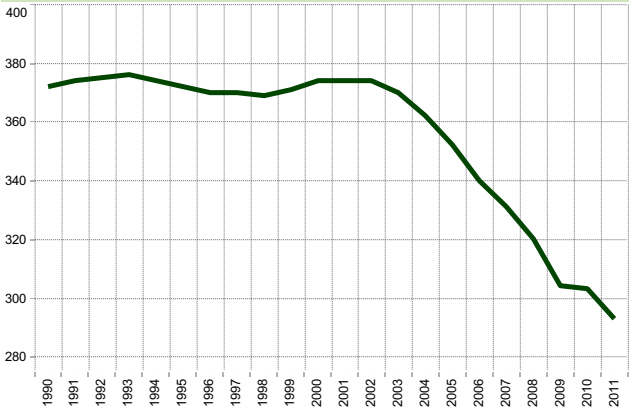
Source: WHO, November 2013.

Figure 4.2.5: Tuberculosis prevalence (per 100 000 population per year) by WHO Region, 1990 and 2011



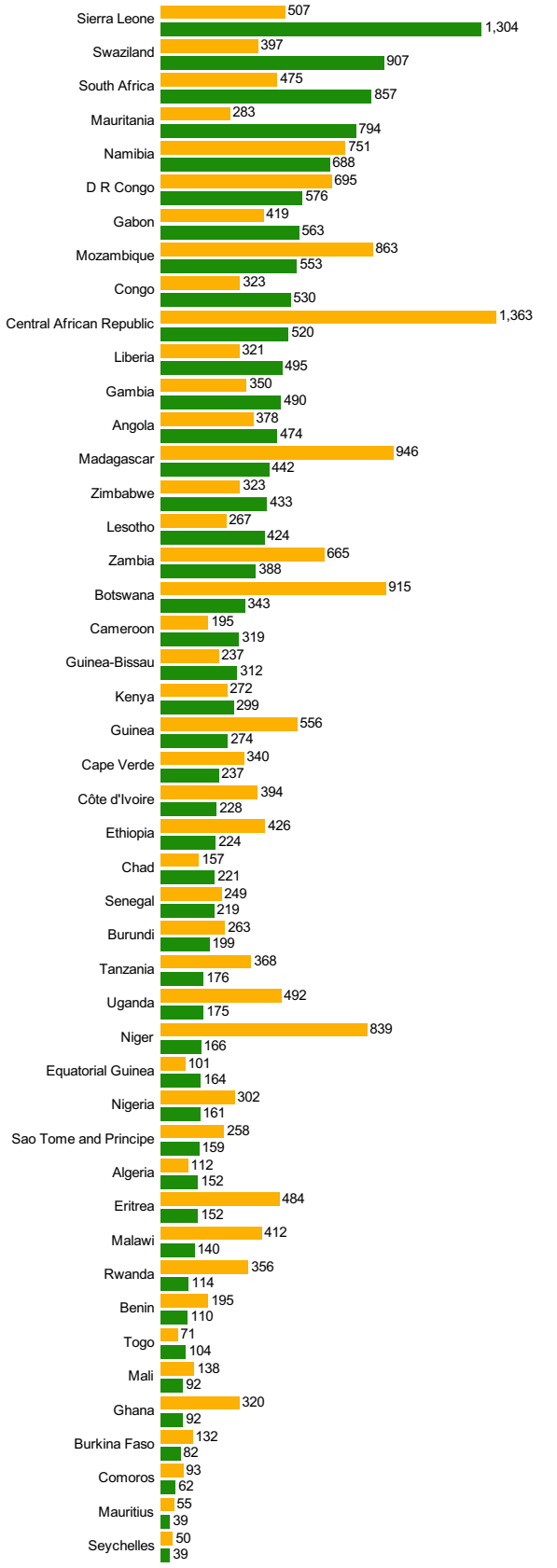
Source: WHO, November 2013.

Figure 4.2.6: Trend in tuberculosis prevalence (per 100 000 population per year) in the African Region, from 1990 to 2011



Source: WHO, November 2013.

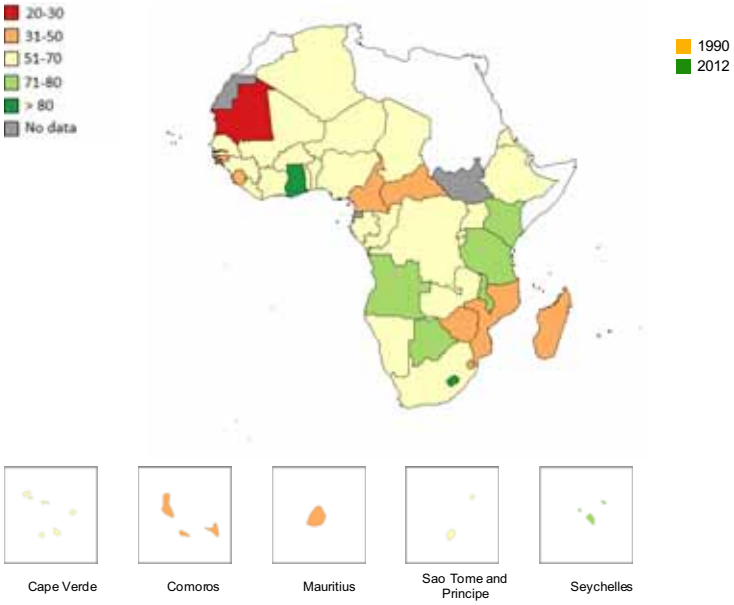
Figure 4.2.4: Tuberculosis prevalence (per 100 000 population per year) in the African Region, 1990 and 2012



Countries of the African Region without data are not included in the chart.

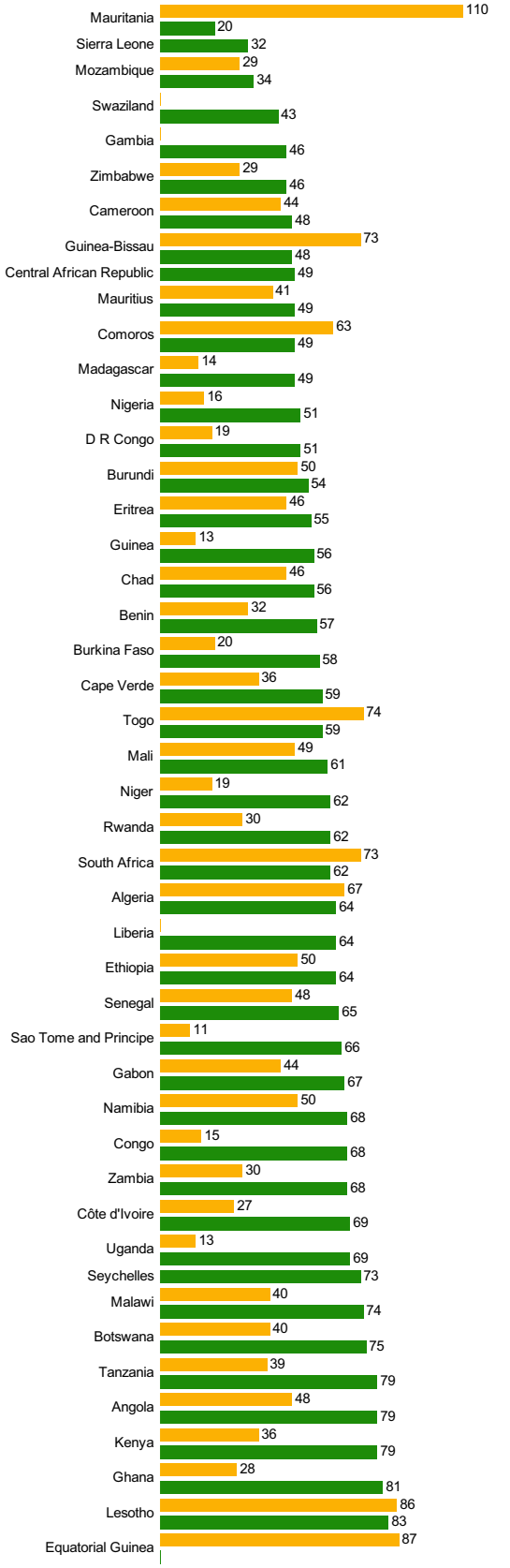
Source: WHO, November 2013.

Figure 4.2.7: Case-detection rate for all forms of tuberculosis (%) in the African Region, 2012



Source: WHO, November 2013.

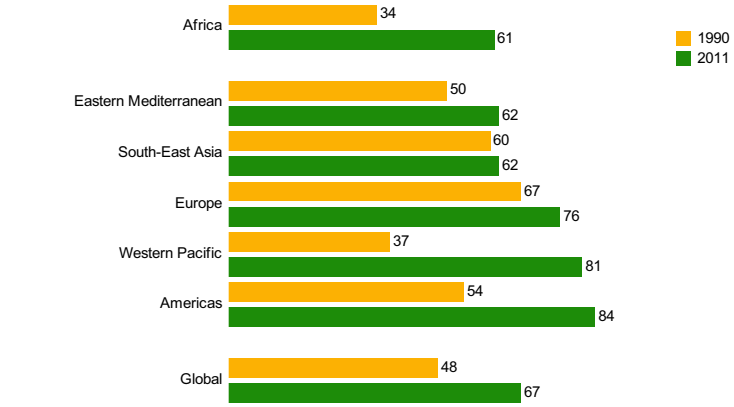
Figure 4.2.8: Case-detection rate for all forms of tuberculosis (%) in the African Region, 1990 and 2012



Countries of the African Region without data are not included in the chart.

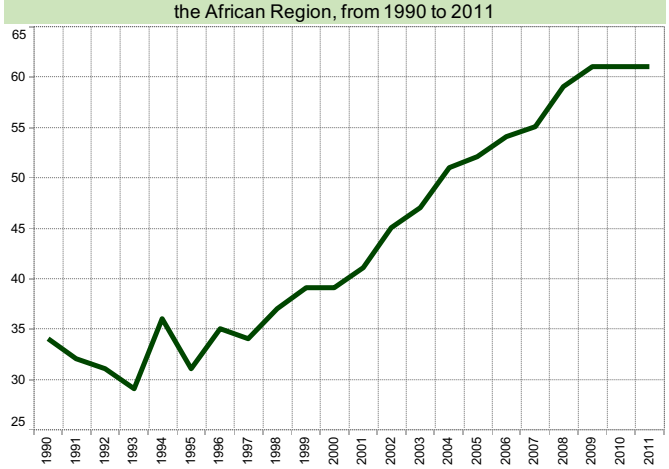
Source: WHO, November 2013.

Figure 4.2.9: Case-detection rate for all forms of tuberculosis (%) by WHO Region, 1990 and 2011



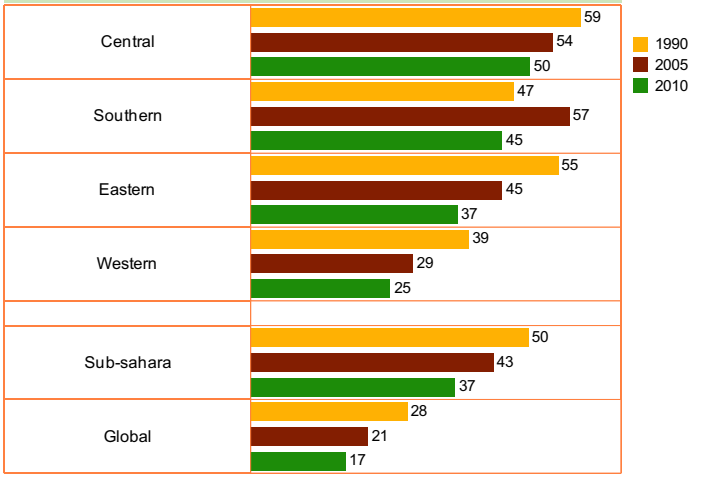
Source: WHO, November 2013.

Figure 4.2.10: Trend in case-detection rate for all forms of tuberculosis (%) in the African Region, from 1990 to 2011



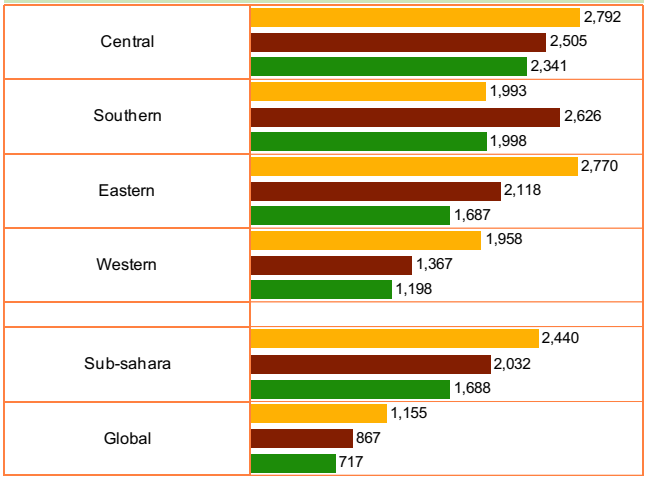
Source: WHO, November 2013.

Figure 4.2.11: Tuberculosis Mortality rate per 100 000 in 1990, 2005 and 2010, by sub-Saharan region



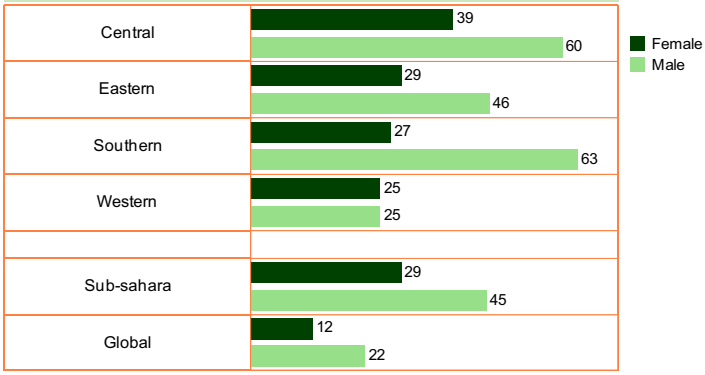
Source: IHME, May 2013

Figure 4.2.12: Tuberculosis Disability Adjusted Life Years (DALY) rate per 100 000 in 1990, 2005 and 2010, by sub-Saharan region



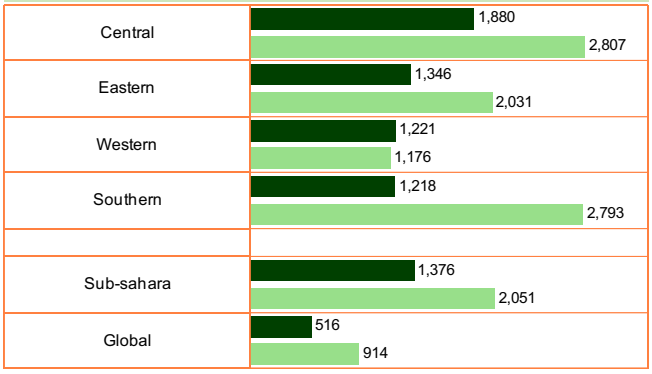
Source: IHME, May 2013

Figure 4.2.13: Tuberculosis Mortality rate per 100 000 in 2010, by sub-Saharan region and by sex



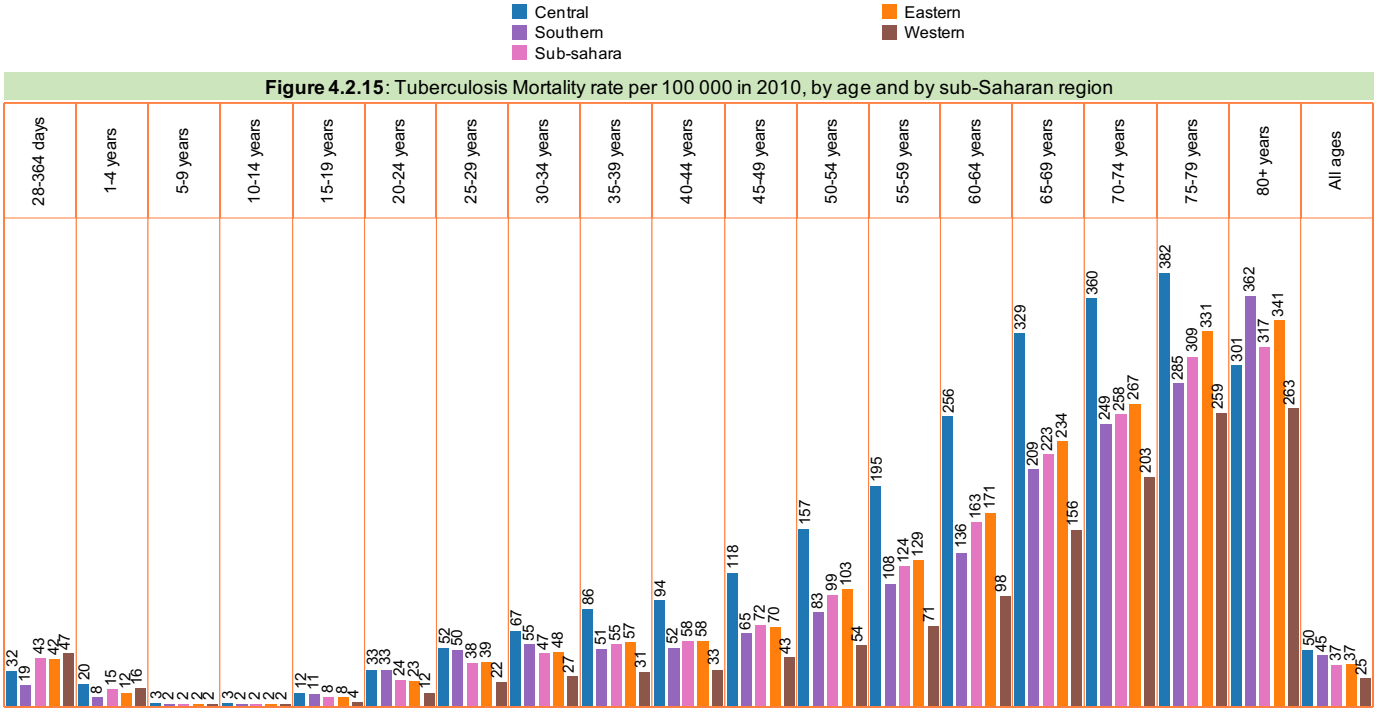
Source: IHME, May 2013

Figure 4.2.14: Tuberculosis Disability Adjusted Life Years (DALY) per 100 000 in 2010, by sub-Saharan region and by sex



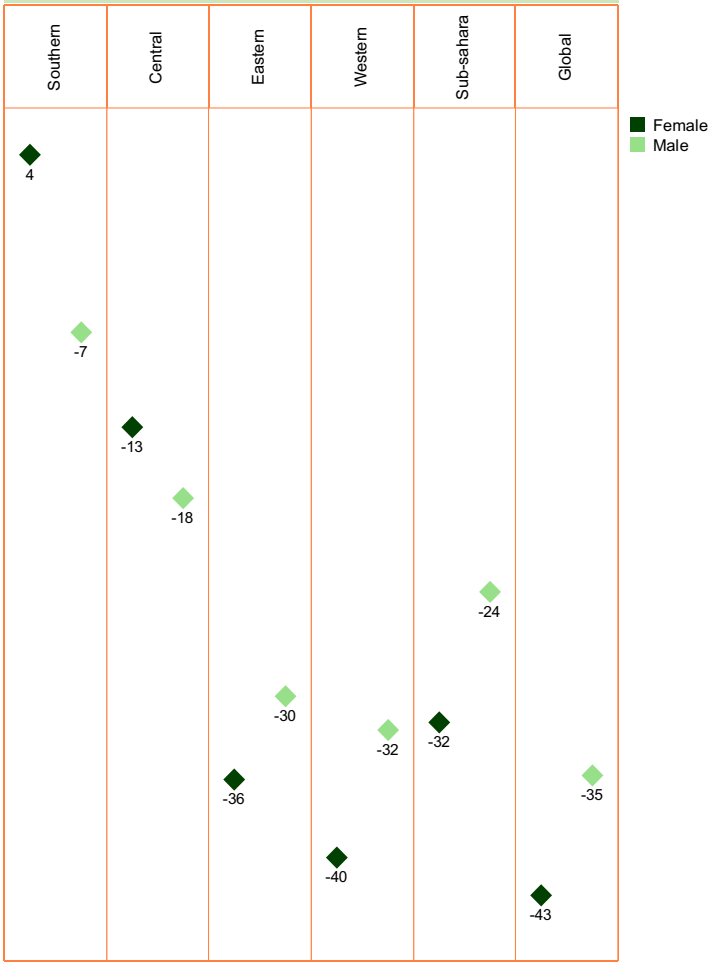
Source: IHME, May 2013

Figure 4.2.15: Tuberculosis Mortality rate per 100 000 in 2010, by age and by sub-Saharan region



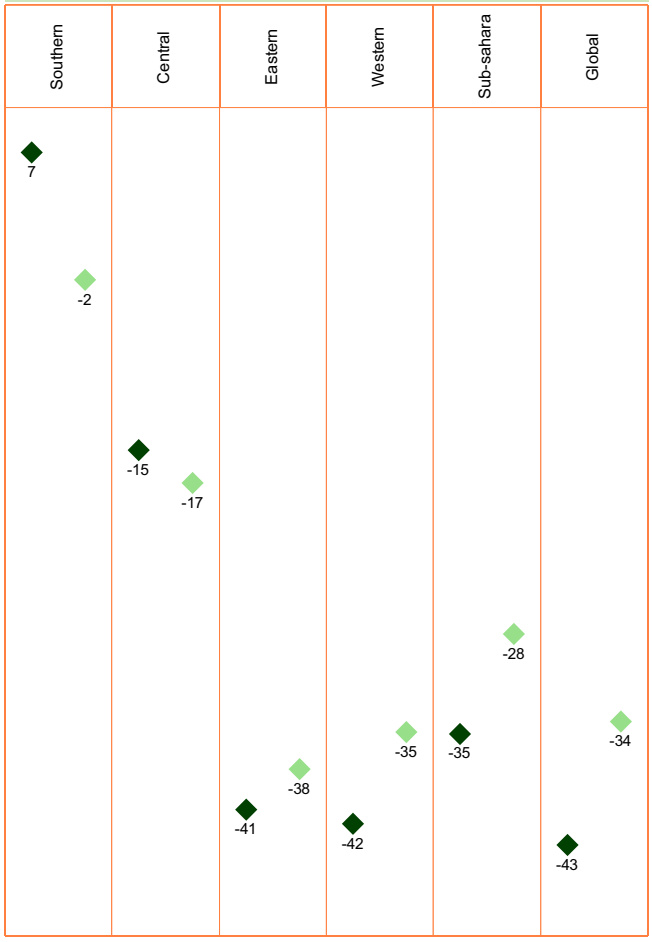
Source: IHME, May 2013

Figure 4.2.16: Percentage change in Tuberculosis Mortality rate between 1990 and 2010, by sub-Saharan region and by sex



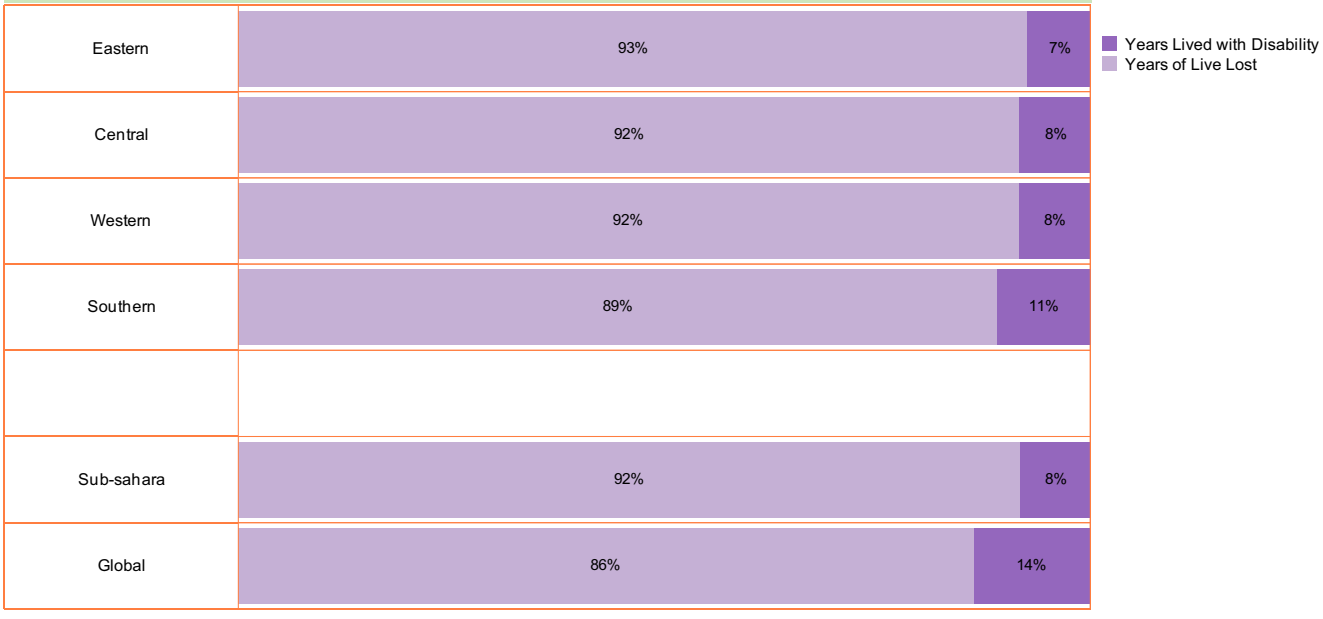
Source: IHME, May 2013

Figure 4.2.17: Percentage change in Tuberculosis Disability Adjusted Life Years (DALY) rate between 1990 and 2010, by sub-Saharan region and by sex



Source: IHME, May 2013

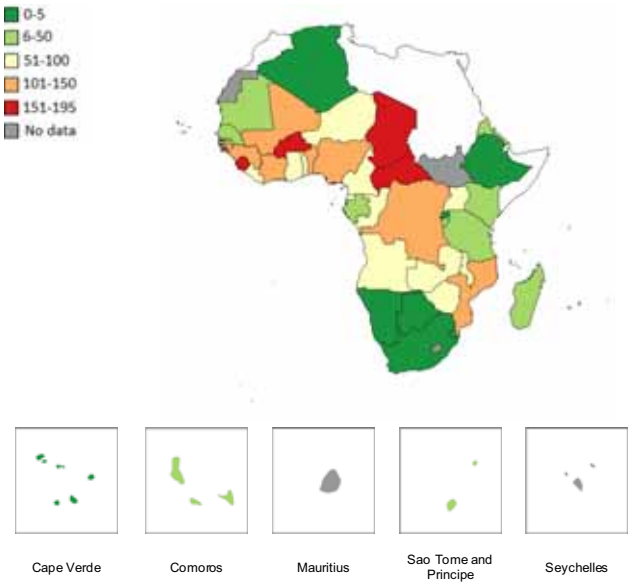
Figure 4.2.18: Percentage distribution of Tuberculosis Disability Adjusted Life Years rate by main components in 2010, by sub-Saharan region



Source: IHME, May 2013

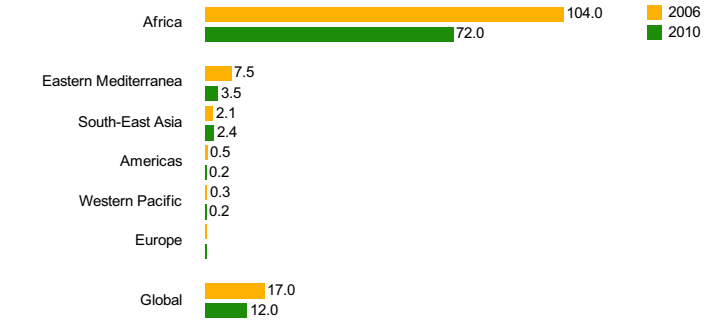
4.3 Malaria

Figure 4.3.1: Malaria mortality rate per 100 000 population in the African Region, 2010



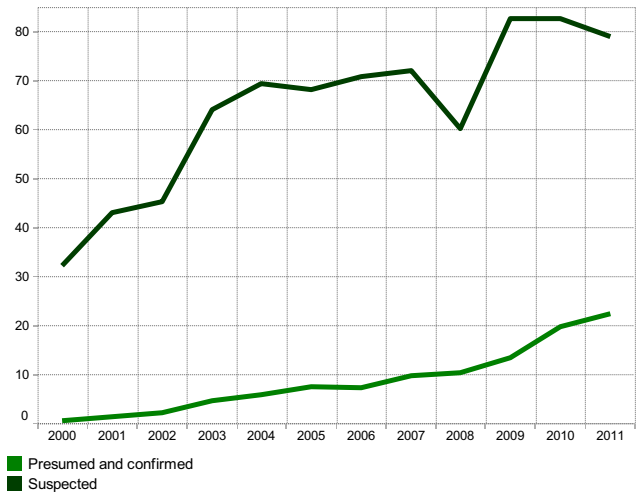
Source: WHO, November 2013.

Figure 4.3.3: Malaria mortality rate by WHO Region, 2006 and 2010



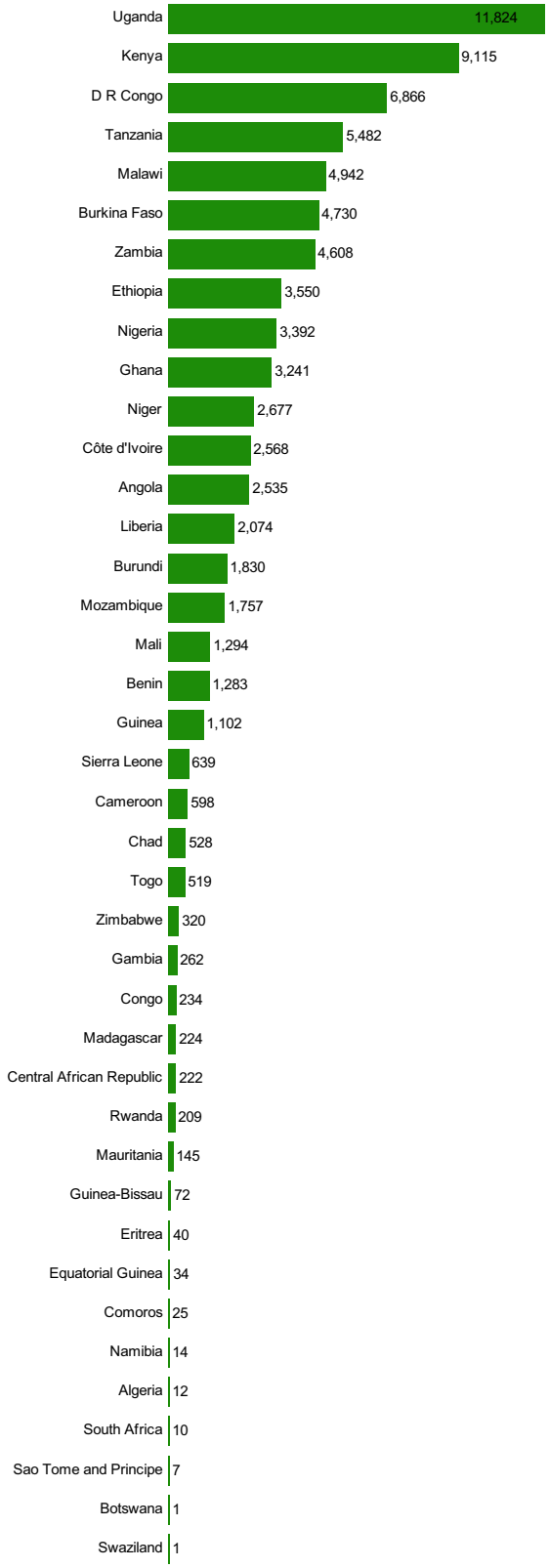
Source: WHO, November 2013.

Figure 4.3.4: Trend in reported and confirmed malaria cases (in millions) in the African Region, from 2000 to 2011



Source: WHO, November 2013.

Figure 4.3.2: Reported* cases of malaria (in thousands) in the African Region, 2011



*Malaria cases are reported by method of confirmation.
Countries of the African Region without data are not included in the chart.

Source: WHO, November 2013.

Figure 4.3.5: Malaria incidence rate (per 100 000 population) in the African Region, 2010

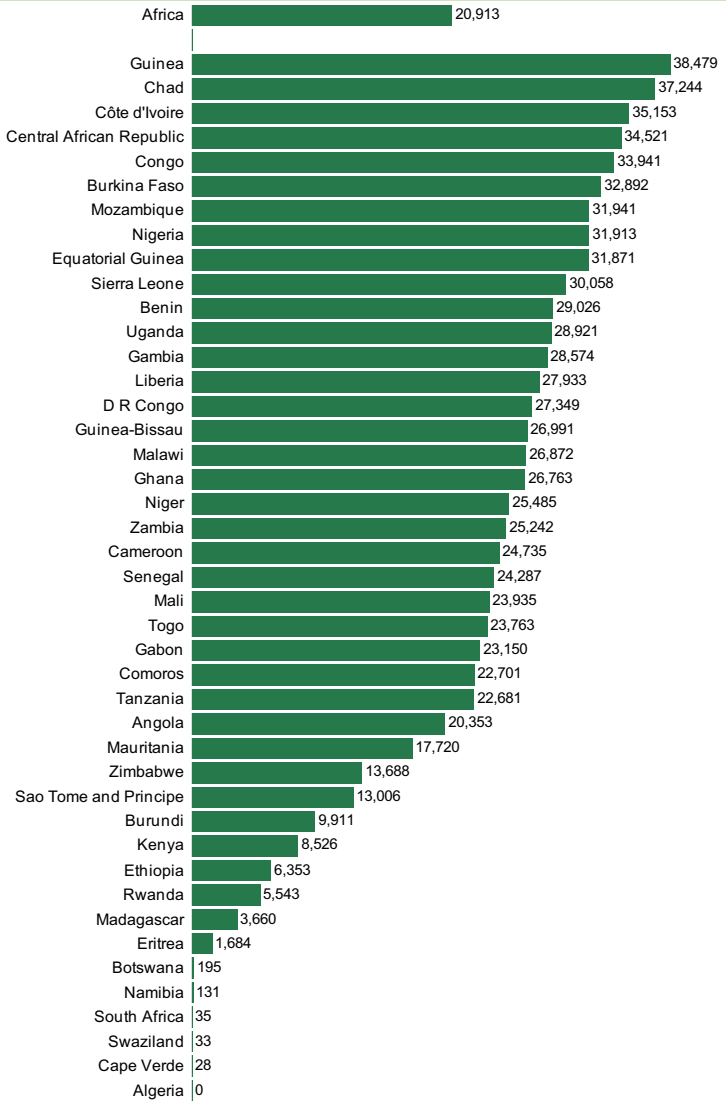
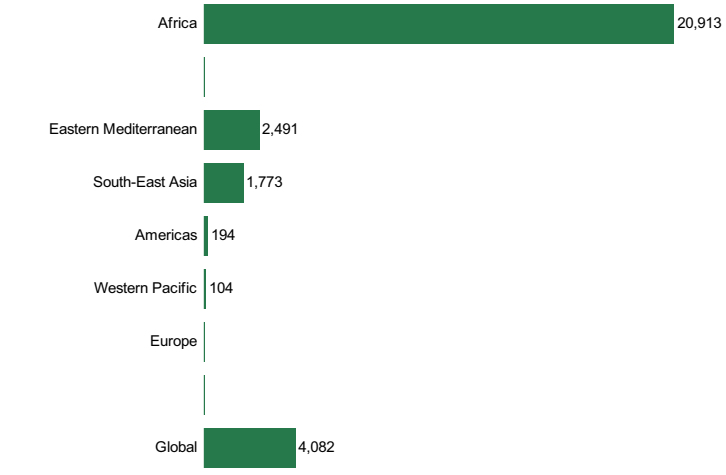
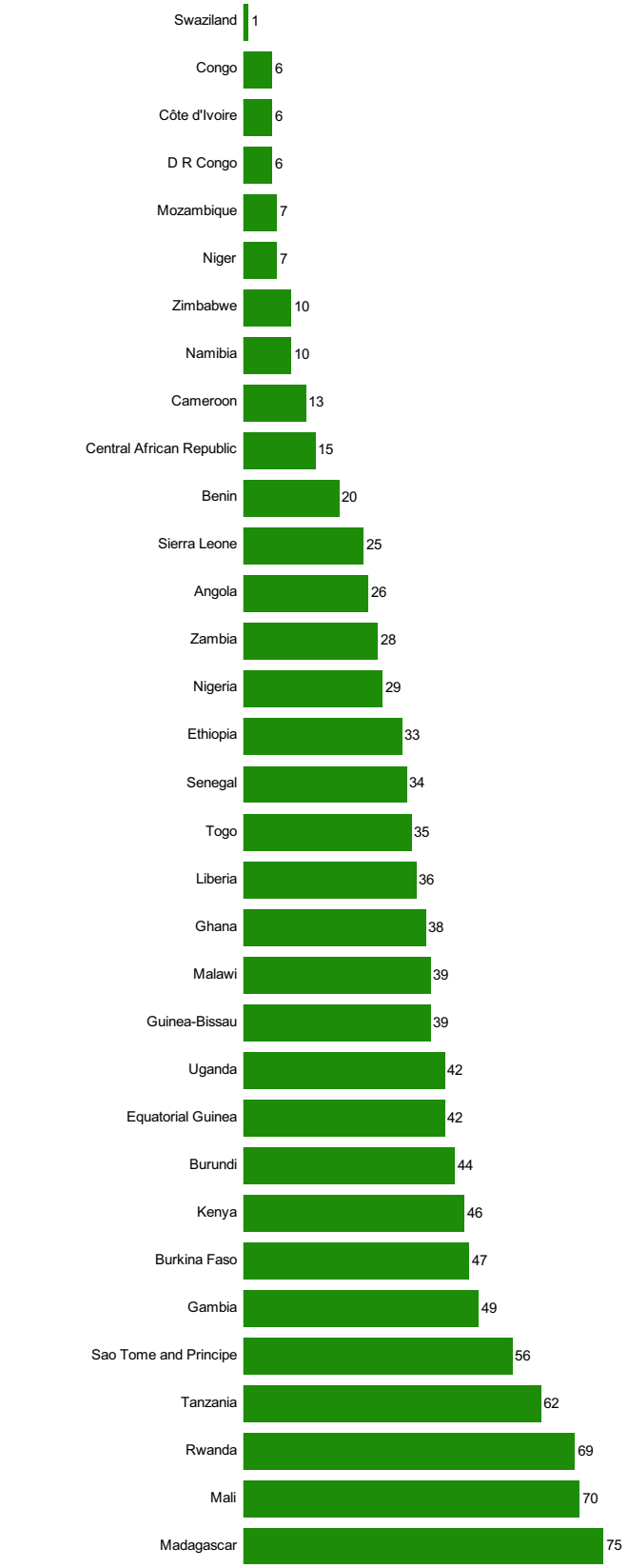


Figure 4.3.6: Malaria incidence rate (per 100 000 population) by WHO Region, 2010



Source: WHO, November 2013.

Figure 4.3.7: Percentage of children under 5 years of age sleeping under insecticide-treated bed nets in the African Region, between 2005 and 2011*

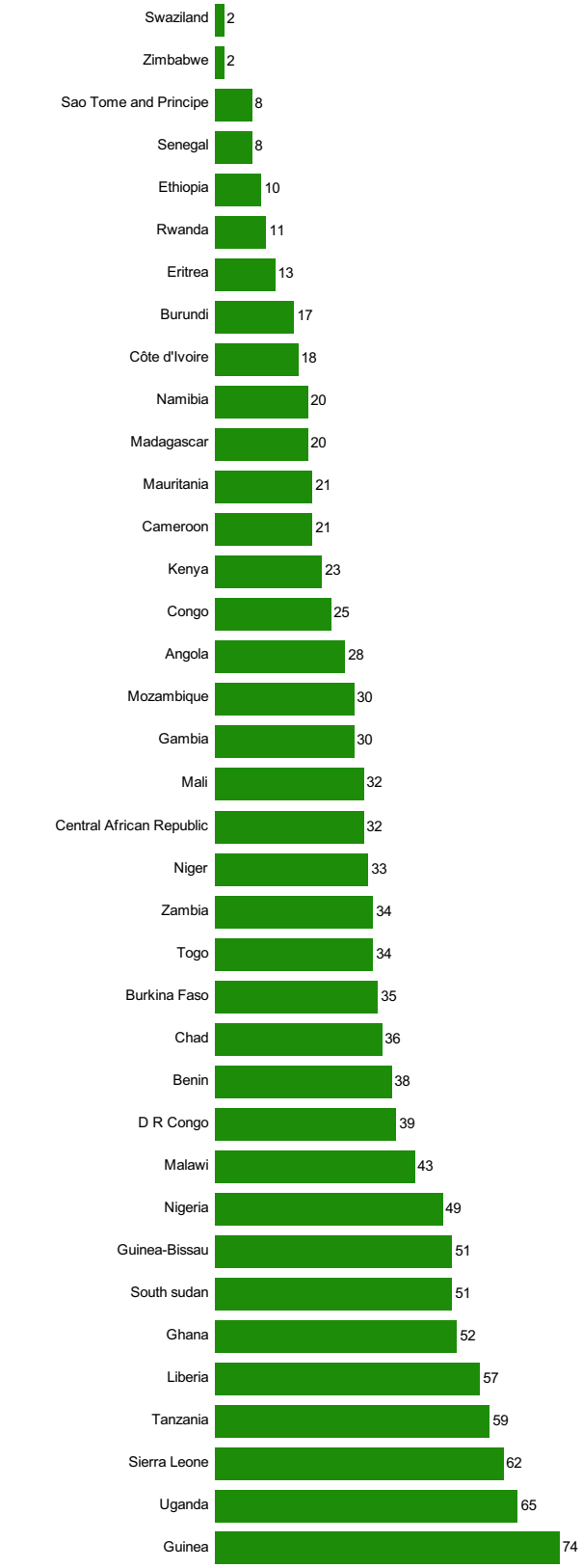


Countries of the African Region without data are not included in the chart.

Source: WHO, November 2013.

* most recent survey

Figure 4.3.8: Proportion of children under 5 years of age with fever being treated with antimalarial drugs in the African Region, between 2005 and 2012*

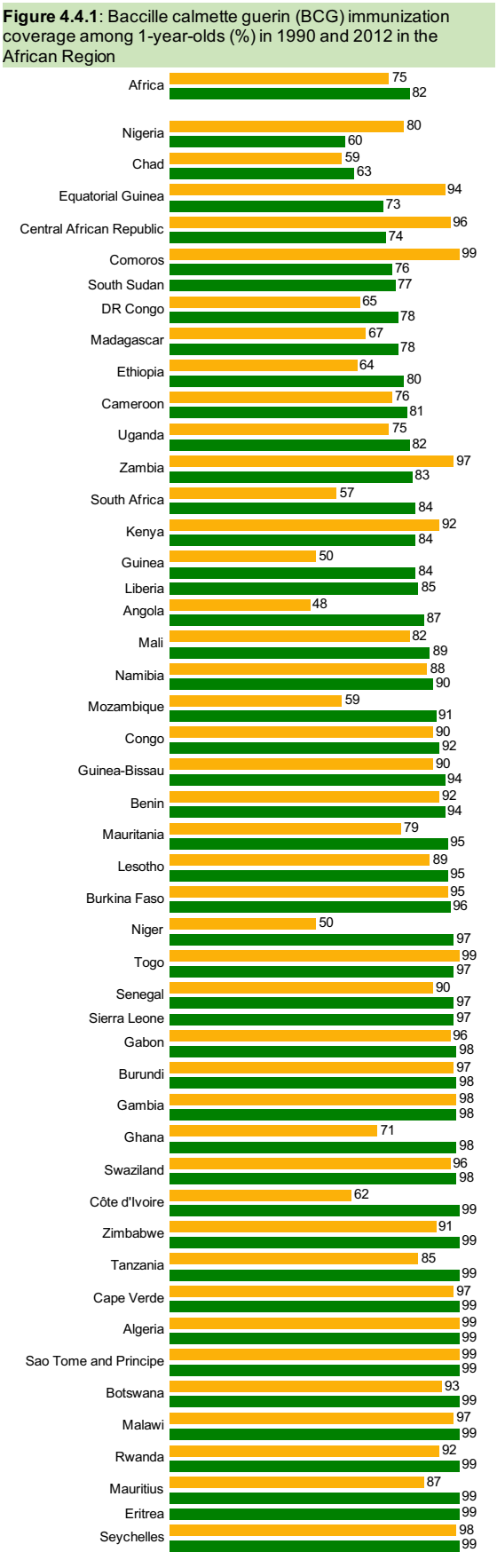


Countries of the African Region without data are not included in the chart.

Source: WHO, November 2013.

4.4. Immunization, vaccines and emergencies

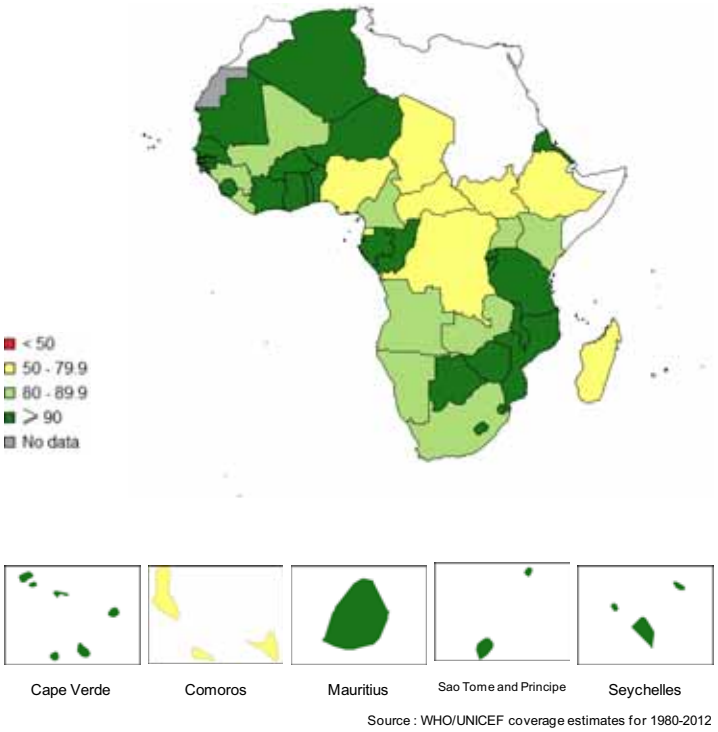
Figure 4.4.1: Baccille calmette guerin (BCG) immunization coverage among 1-year-olds (%) in 1990 and 2012 in the African Region



Countries of the African Region without data are not included in the chart.

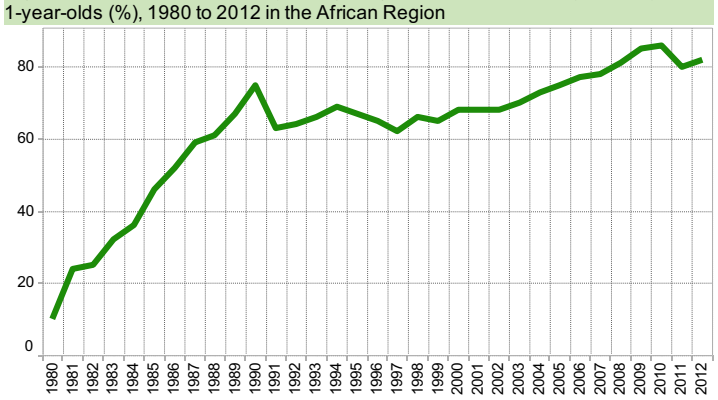
Source : WHO/UNICEF coverage estimates for 1980-2012

Figure 4.4.2: Baccille calmette guerin (BCG) immunization coverage among 1-year-olds (%) in 2012 in the African Region



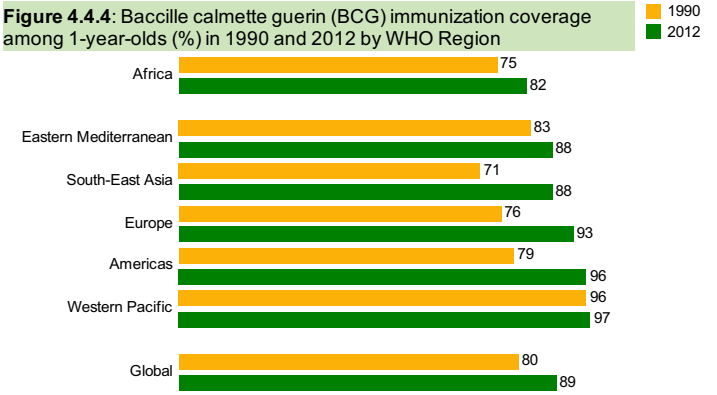
Source : WHO/UNICEF coverage estimates for 1980-2012

Figure 4.4.3: Baccille calmette guerin (BCG) immunization coverage among 1-year-olds (%), 1980 to 2012 in the African Region



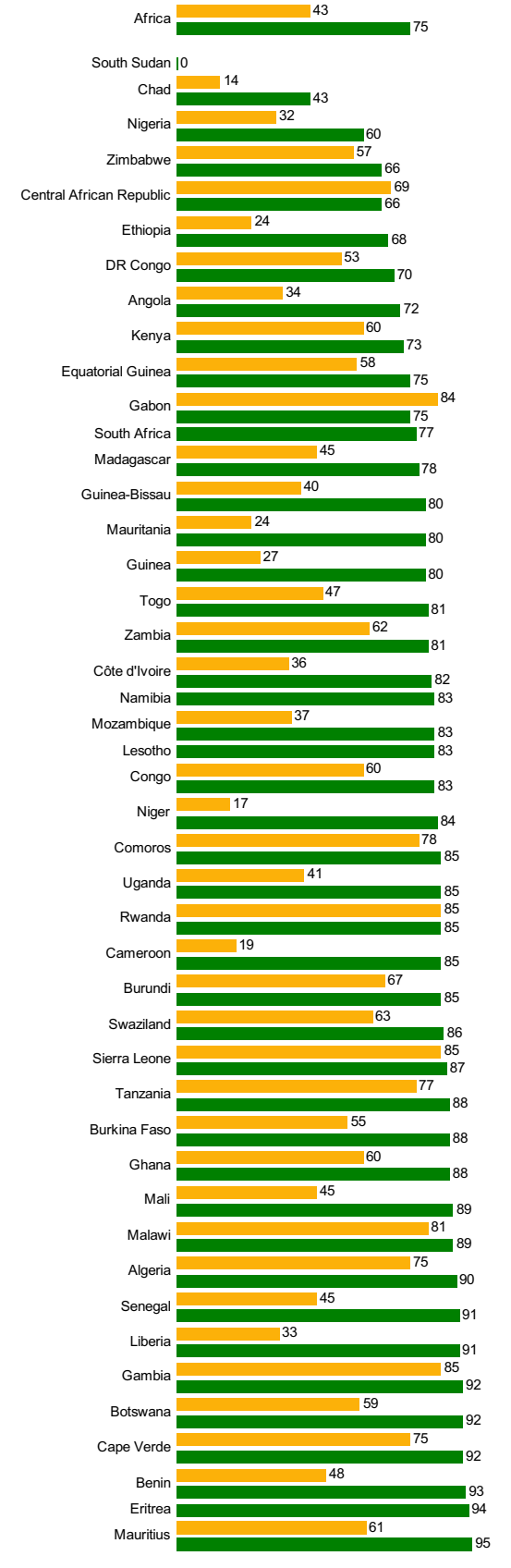
Source : WHO/UNICEF coverage estimates for 1980-2012

Figure 4.4.4: Baccille calmette guerin (BCG) immunization coverage among 1-year-olds (%) in 1990 and 2012 by WHO Region



Source : WHO/UNICEF coverage estimates for 1980-2012

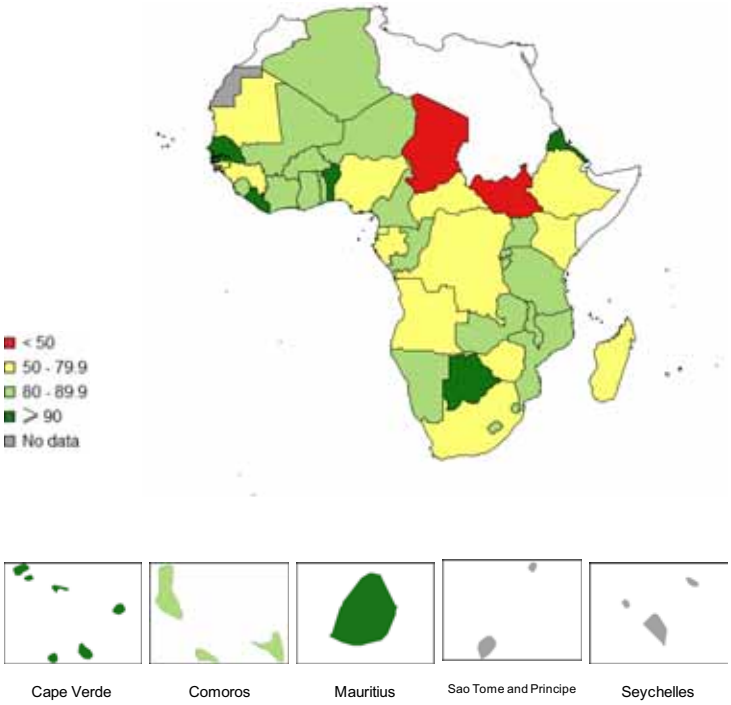
Figure 4.4.5: Neonates protected at birth against neonatal tetanus (PAB) (%) in 1990 and 2012 in the African Region



Countries of the African Region without data are not included in the chart.

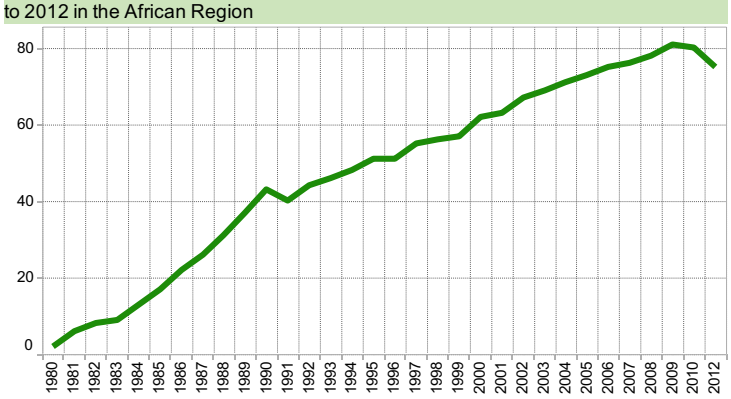
Source : WHO/UNICEF coverage estimates for 1980-2012

Figure 4.4.6: Neonates protected at birth against neonatal tetanus (PAB) (%) in 2012 in the African Region



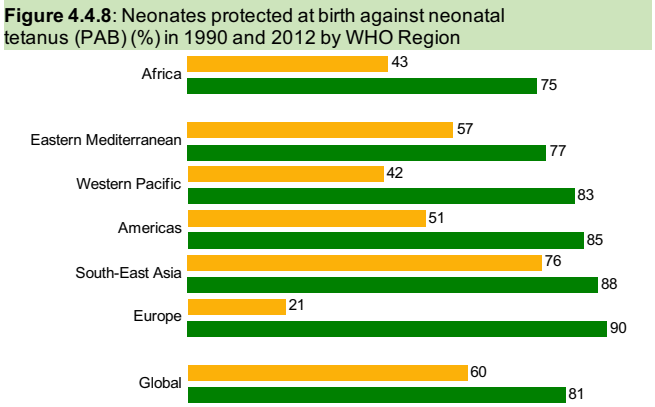
Source : WHO/UNICEF coverage estimates for 1980-2012

Figure 4.4.7: Neonates protected at birth against neonatal tetanus (PAB) (%), 1980 to 2012 in the African Region



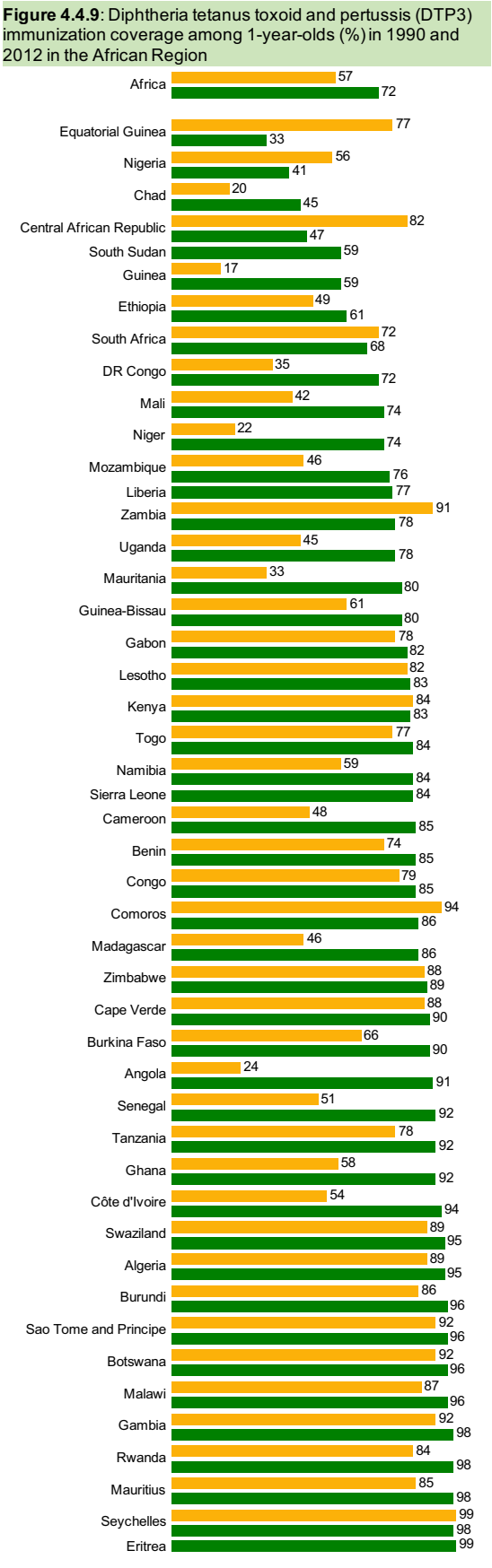
Source : WHO/UNICEF coverage estimates for 1980-2012

Figure 4.4.8: Neonates protected at birth against neonatal tetanus (PAB) (%) in 1990 and 2012 by WHO Region



Source : WHO/UNICEF coverage estimates for 1980-2012

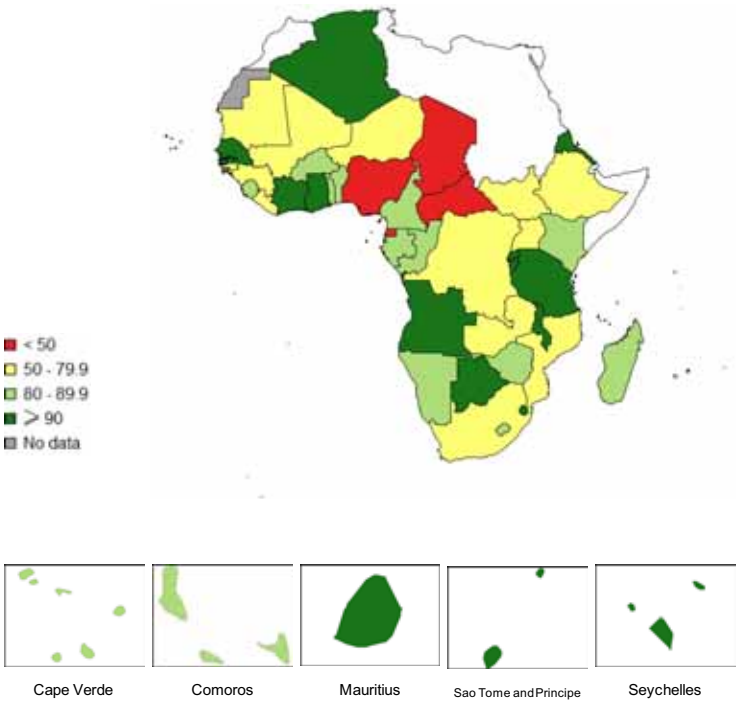
Figure 4.4.9: Diphtheria tetanus toxoid and pertussis (DTP3) immunization coverage among 1-year-olds (%) in 1990 and 2012 in the African Region



Countries of the African Region without data are not included in the chart.

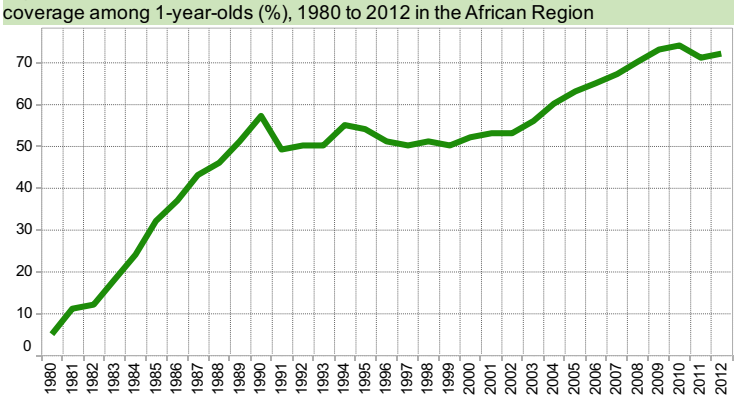
Source : WHO/UNICEF coverage estimates for 1980-2012

Figure 4.4.10: Diphtheria tetanus toxoid and pertussis (DTP3) immunization coverage among 1-year-olds (%) in 2012 in the African Region



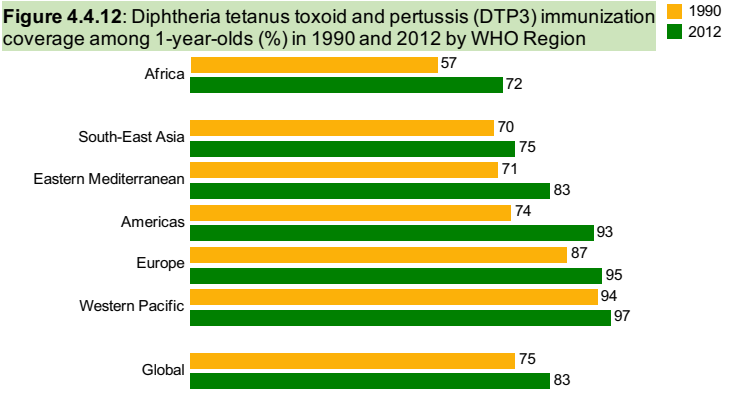
Source : WHO/UNICEF coverage estimates for 1980-2012

Figure 4.4.11: Diphtheria tetanus toxoid and pertussis (DTP3) immunization coverage among 1-year-olds (%), 1980 to 2012 in the African Region



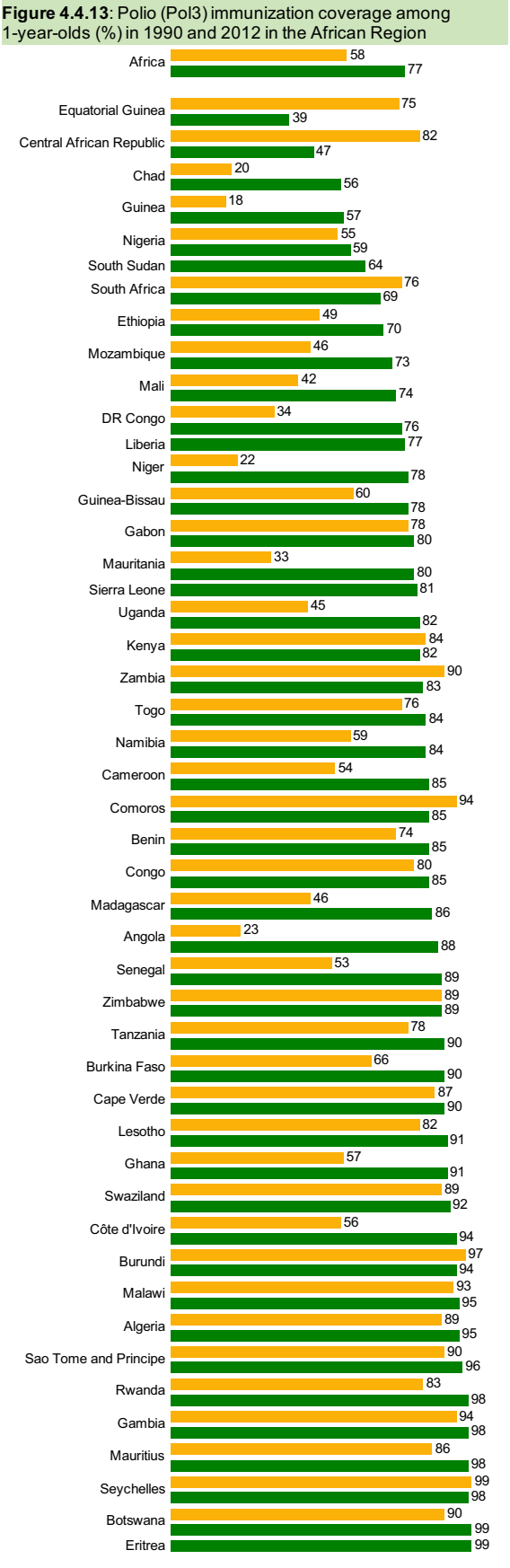
Source : WHO/UNICEF coverage estimates for 1980-2012

Figure 4.4.12: Diphtheria tetanus toxoid and pertussis (DTP3) immunization coverage among 1-year-olds (%) in 1990 and 2012 by WHO Region



Source : WHO/UNICEF coverage estimates for 1980-2012

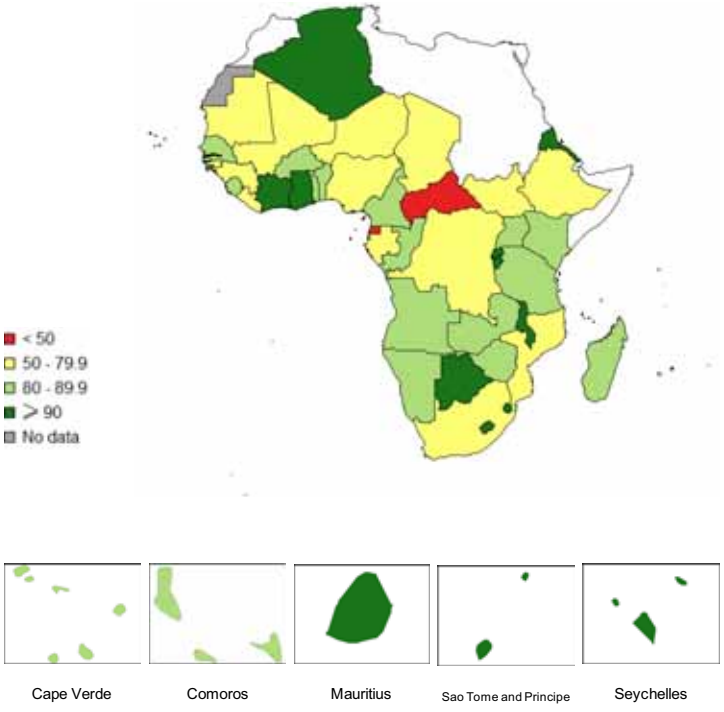
Figure 4.4.13: Polio (Pol3) immunization coverage among 1-year-olds (%) in 1990 and 2012 in the African Region



Countries of the African Region without data are not included in the chart.

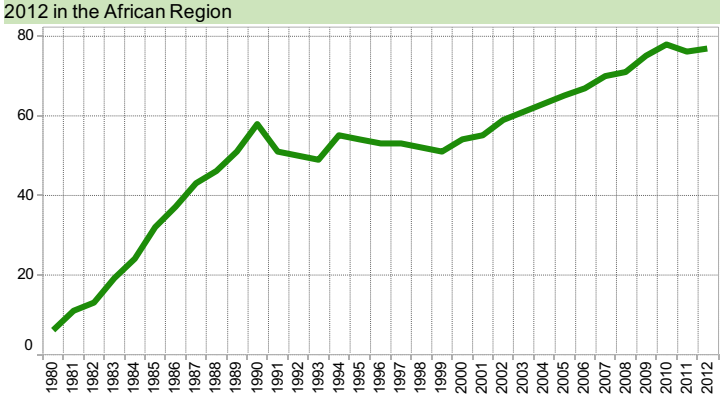
Source : WHO/UNICEF coverage estimates for 1980-2012

Figure 4.4.14: Polio (Pol3) immunization coverage among 1-year-olds (%) in 2012 the African Region



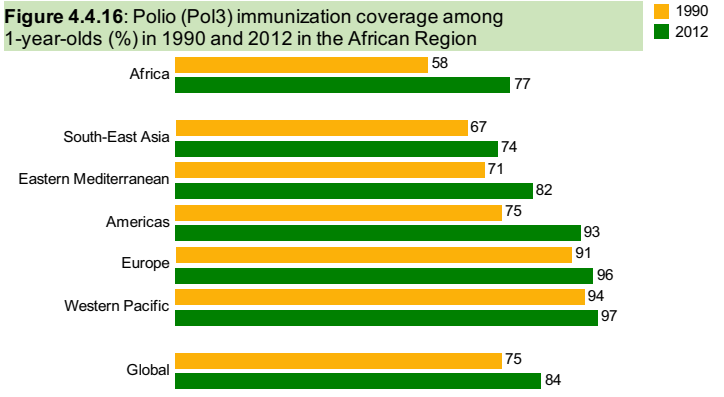
Source : WHO/UNICEF coverage estimates for 1980-2012

Figure 4.4.15: Polio (Pol3) immunization coverage among 1-year-olds (%), 1980 to 2012 in the African Region



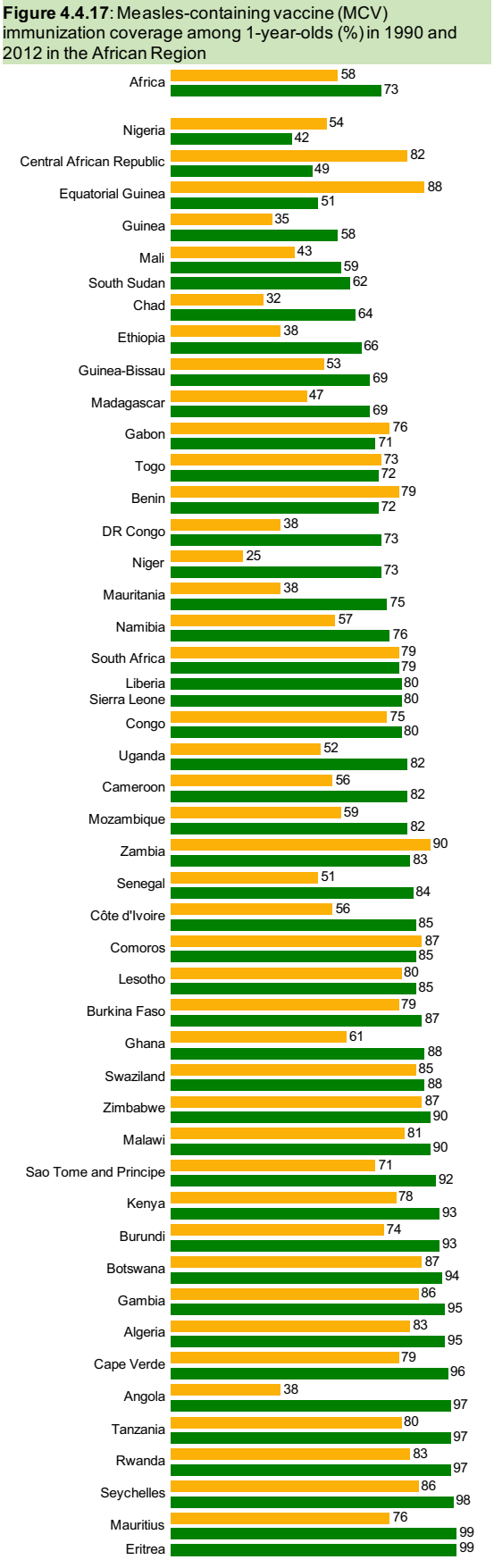
Source : WHO/UNICEF coverage estimates for 1980-2012

Figure 4.4.16: Polio (Pol3) immunization coverage among 1-year-olds (%) in 1990 and 2012 in the African Region



Source : WHO/UNICEF coverage estimates for 1980-2012

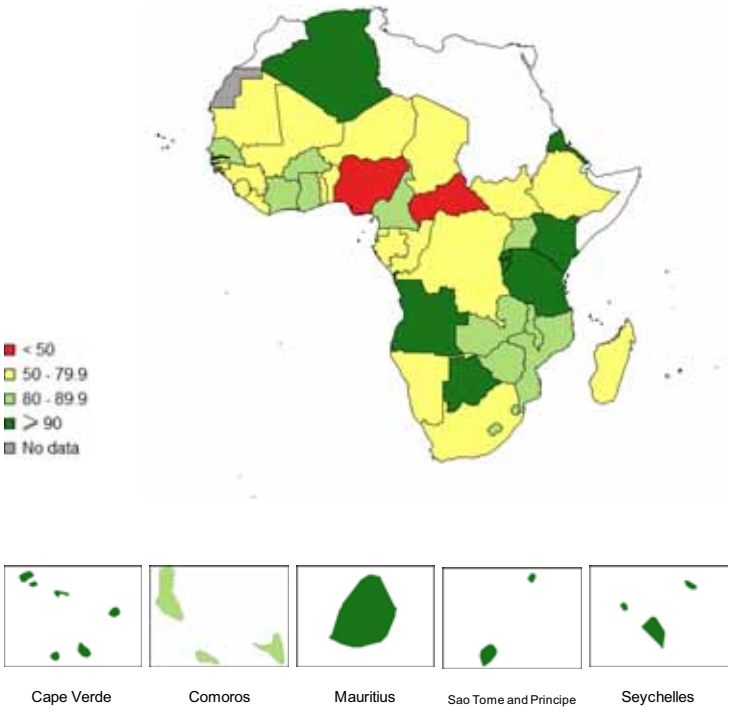
Figure 4.4.17: Measles-containing vaccine (MCV) immunization coverage among 1-year-olds (%) in 1990 and 2012 in the African Region



Countries of the African Region without data are not included in the chart.

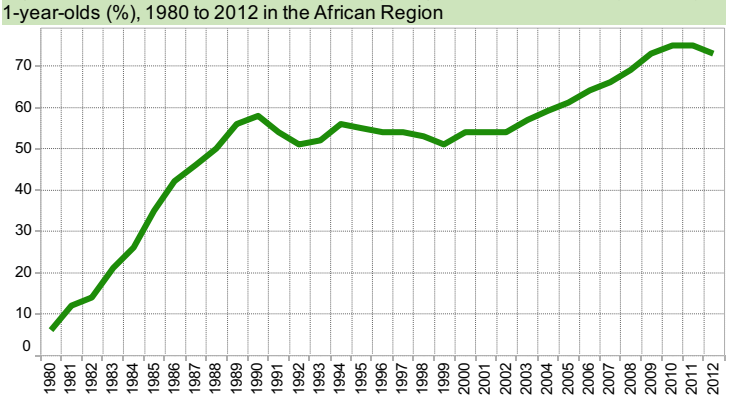
Source : WHO/UNICEF coverage estimates for 1980-2012

Figure 4.4.18: Measles-containing vaccine (MCV) immunization coverage among 1-year-olds (%) in 2012 in the African Region



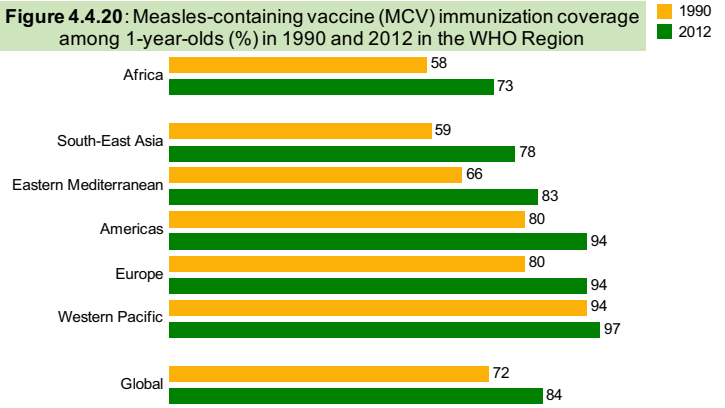
Source : WHO/UNICEF coverage estimates for 1980-2012

Figure 4.4.19: Measles-containing vaccine (MCV) immunization coverage among 1-year-olds (%), 1980 to 2012 in the African Region



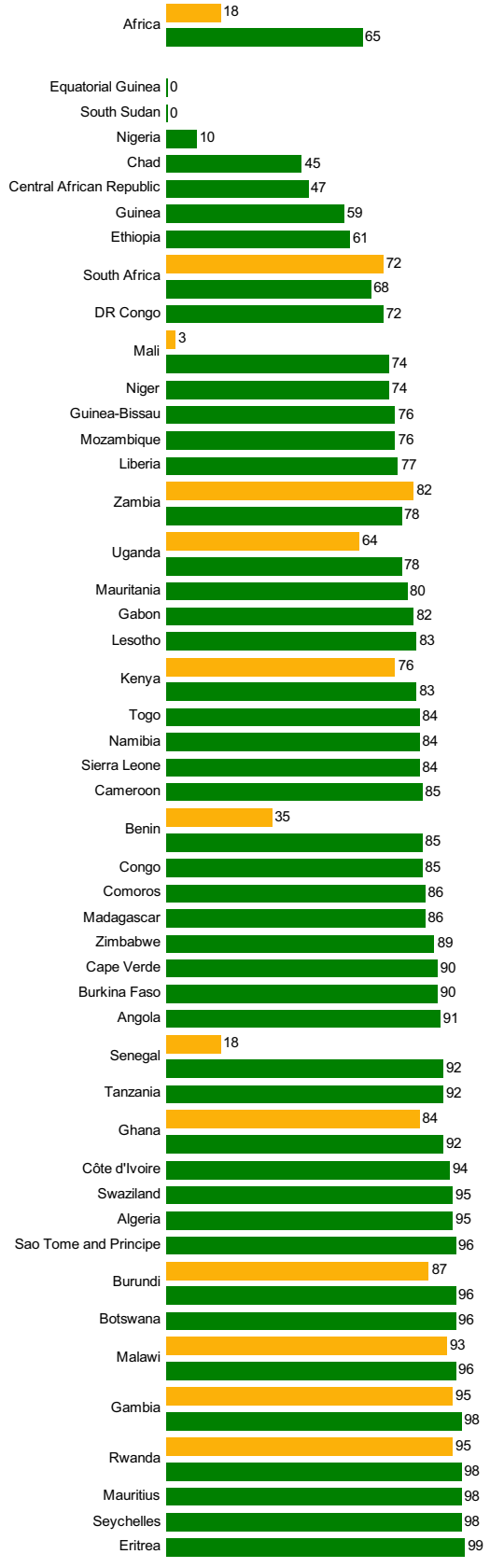
Source : WHO/UNICEF coverage estimates for 1980-2012

Figure 4.4.20: Measles-containing vaccine (MCV) immunization coverage among 1-year-olds (%) in 1990 and 2012 in the WHO Region



Source : WHO/UNICEF coverage estimates for 1980-2012

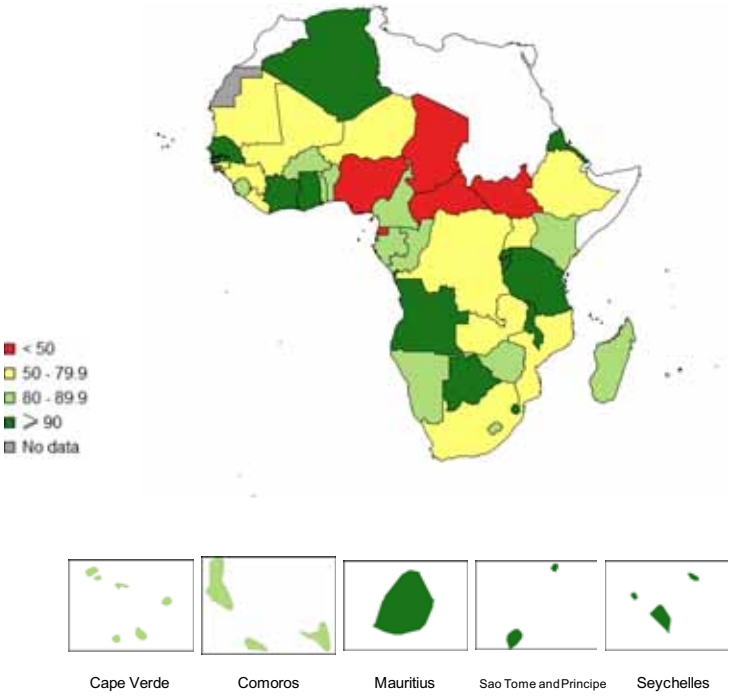
Figure 4.4.21: Haemophilus influenzae B (Hib3) immunization coverage among 1-year-olds (%) in 2005 and 2012 in the African Region



Countries of the African Region without data are not included in the chart.

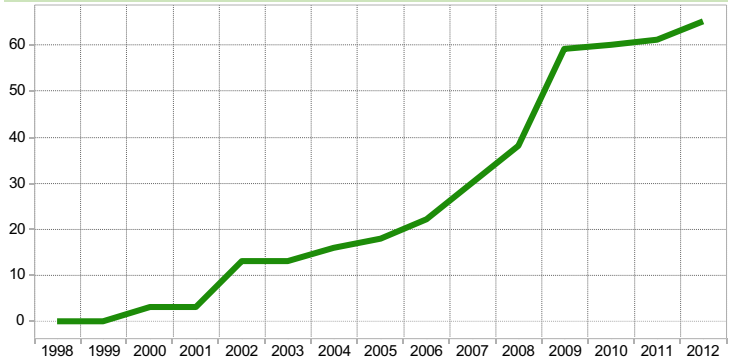
Source : WHO/UNICEF coverage estimates for 1980-2012

Figure 4.4.22: Haemophilus influenzae B (Hib3) immunization coverage among 1-year-olds (%) in 2012 in the African Region



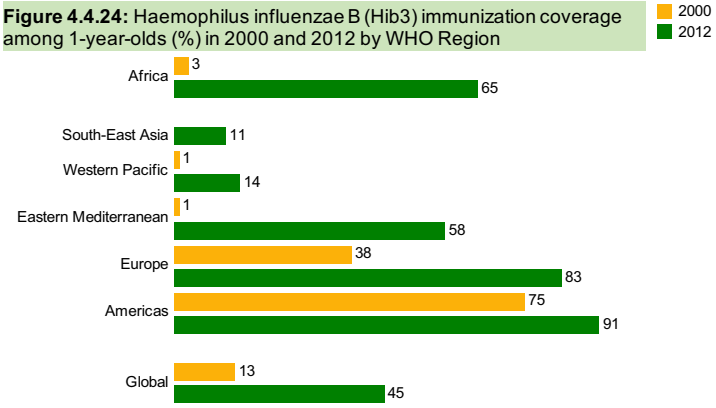
Source : WHO/UNICEF coverage estimates for 1980-2012

Figure 4.4.23: Trend in Haemophilus influenzae B (Hib3) immunization coverage among 1-year-olds (%), 1998-2012 in the African Region



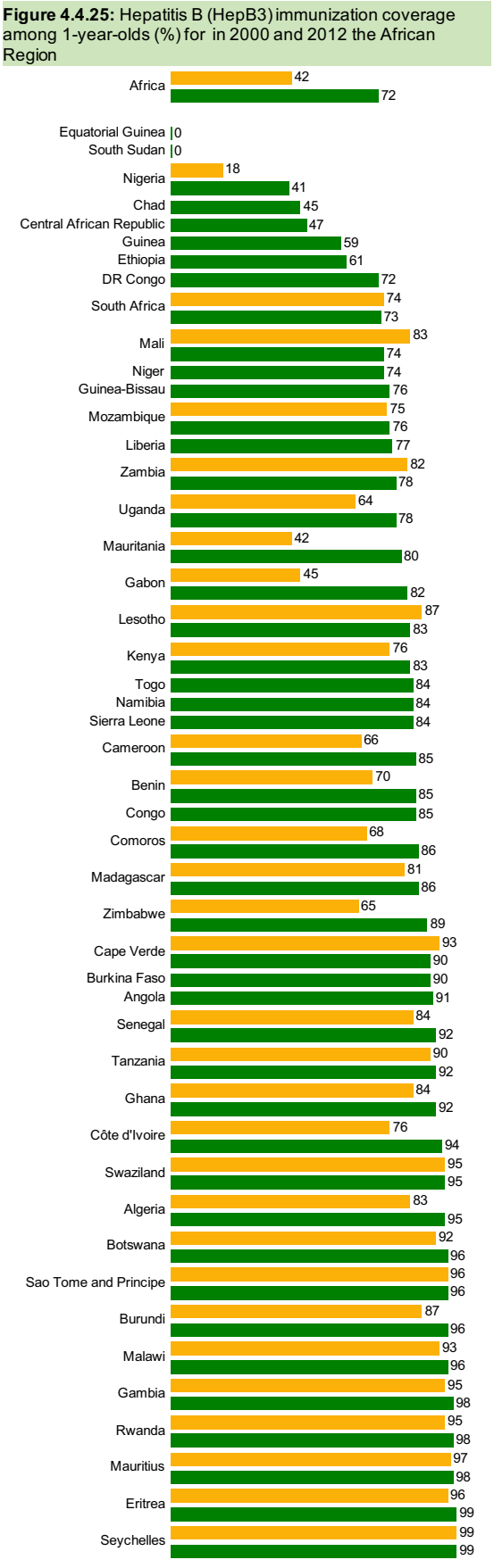
Source : WHO/UNICEF coverage estimates for 1980-2012

Figure 4.4.24: Haemophilus influenzae B (Hib3) immunization coverage among 1-year-olds (%) in 2000 and 2012 by WHO Region



Source : WHO/UNICEF coverage estimates for 1980-2012

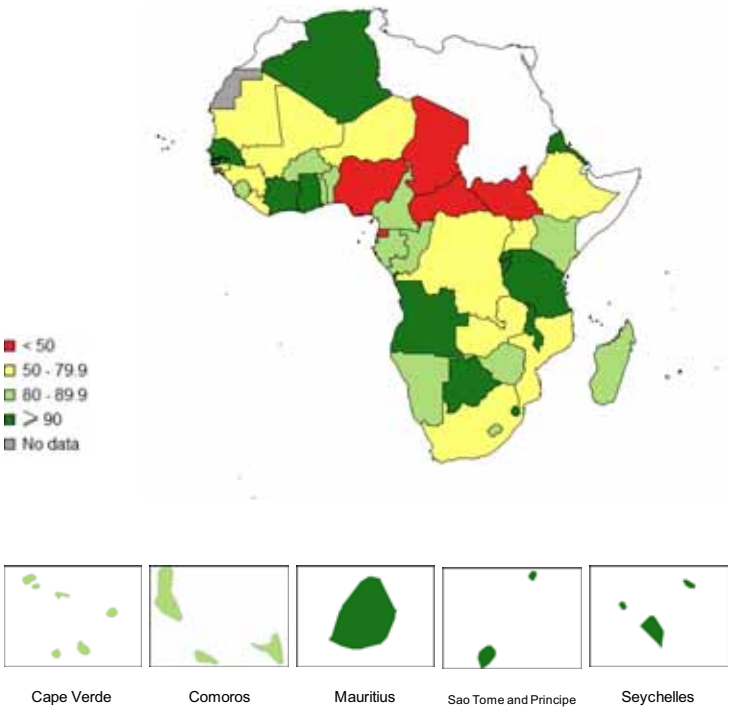
Figure 4.4.25: Hepatitis B (HepB3) immunization coverage among 1-year-olds (%) for in 2000 and 2012 the African Region



Countries of the African Region without data are not included in the chart.

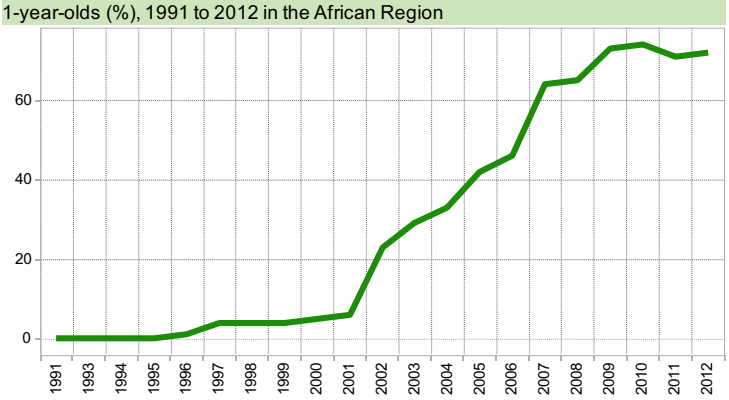
Source : WHO/UNICEF coverage estimates for 1980-2012

Figure 4.4.26: Hepatitis B (HepB3) immunization coverage among 1-year-olds (%) in 2012 in the African Region



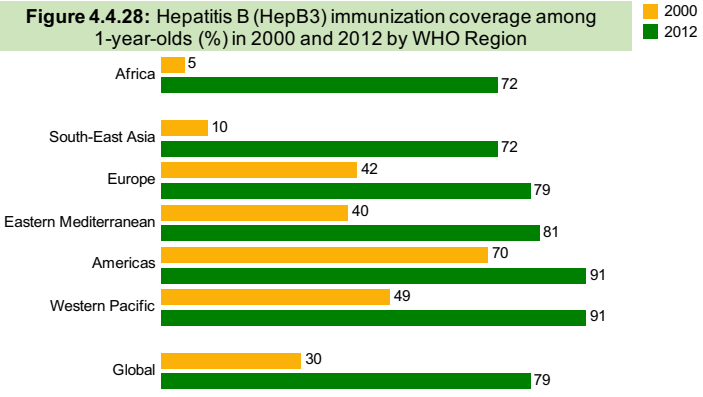
Source : WHO/UNICEF coverage estimates for 1980-2012

Figure 4.4.27: Trend in Hepatitis B (HepB3) immunization coverage among 1-year-olds (%), 1991 to 2012 in the African Region



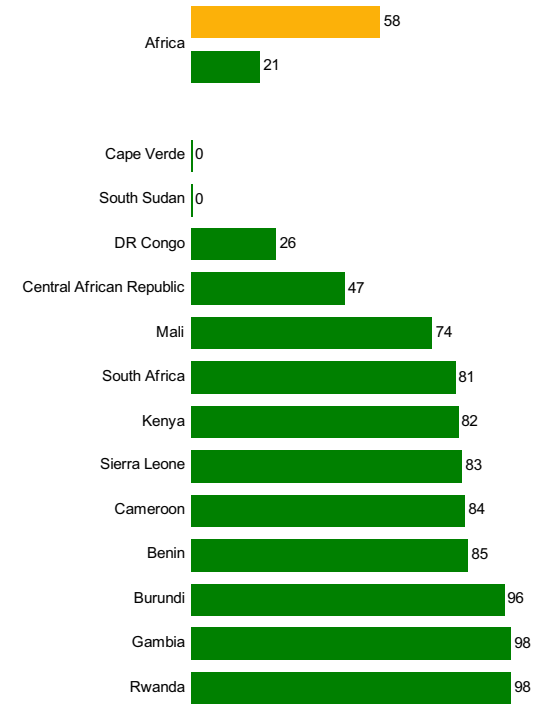
Source : WHO/UNICEF coverage estimates for 1980-2012

Figure 4.4.28: Hepatitis B (HepB3) immunization coverage among 1-year-olds (%) in 2000 and 2012 by WHO Region



Source : WHO/UNICEF coverage estimates for 1980-2012

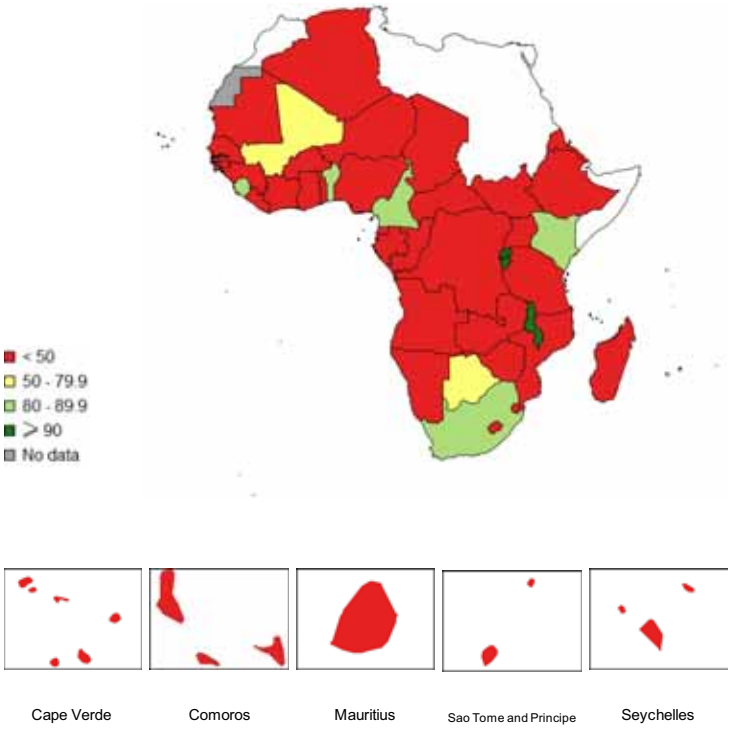
Figure 4.4.29: Pneumococcal conjugate vaccine (PCV) immunization coverage among 1-year-olds (%) in 1990 and 2012 in the African Region



Countries of the African Region without data are not included in the chart.

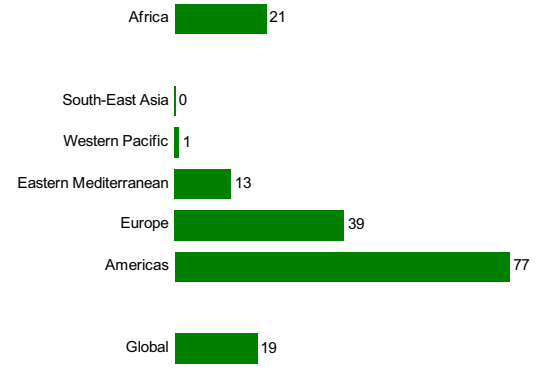
Source : WHO/UNICEF coverage estimates for 1980-2012

Figure 4.4.30: Pneumococcal conjugate vaccine (PCV) immunization coverage among 1-year-olds (%) in 2012 in the African Region



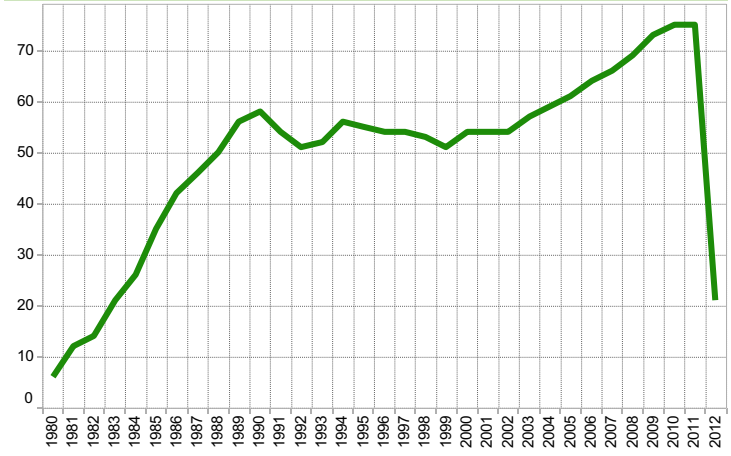
Source : WHO/UNICEF coverage estimates for 1980-2012..

Figure 4.4.31: Pneumococcal conjugate vaccine (PCV) immunization coverage among 1-year-olds (%) in 1990 and 2012 by WHO Region



Source : WHO/UNICEF coverage estimates for 1980-2012

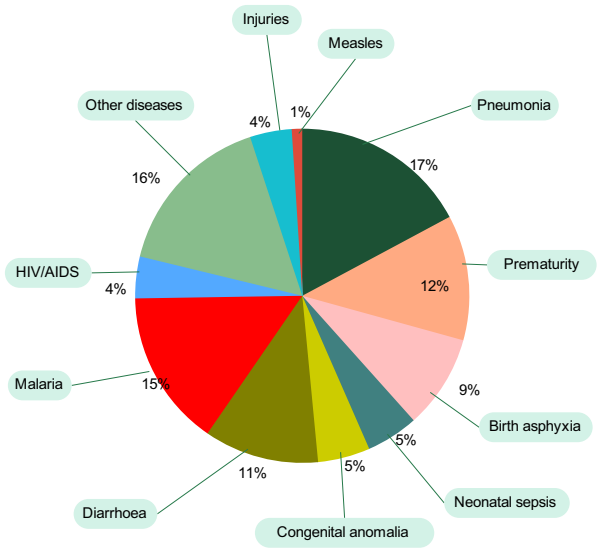
Figure 4.4.32: Trend in Pneumococcal conjugate vaccine (PCV) immunization coverage among 1-year-olds (%), 1980 to 2012 in the African Region



Source : WHO/UNICEF coverage estimates for 1980-2012

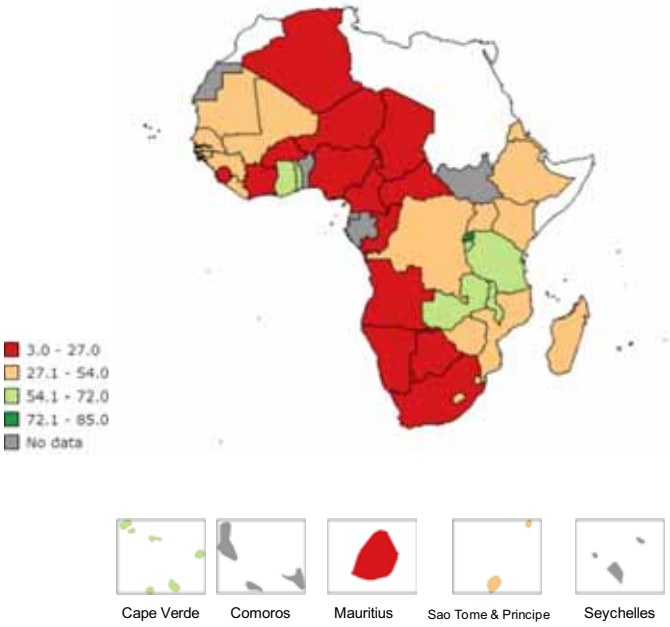
4.5 Child and adolescent health

Figure 4.5.1: Causes of death among children aged <5 years in the African Region, 2010



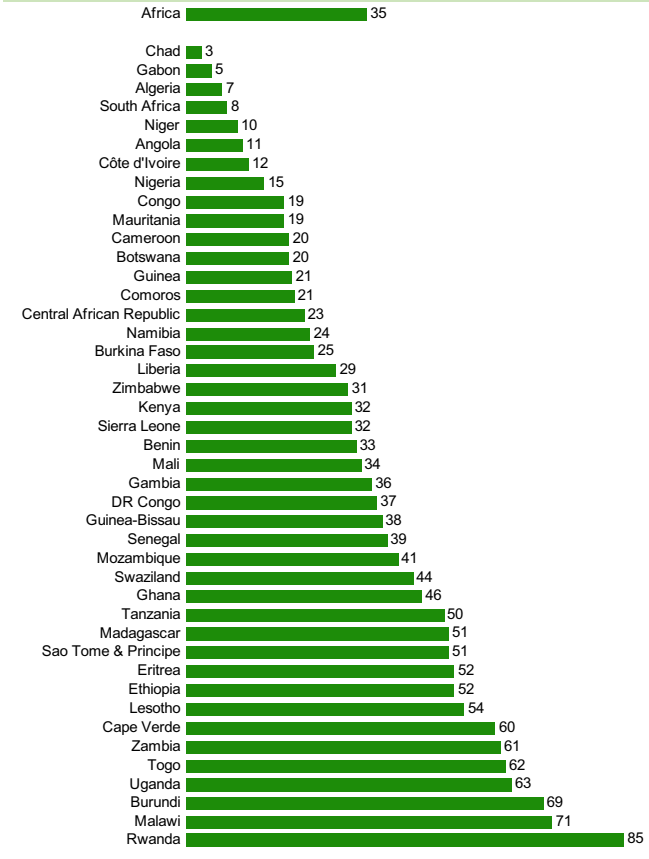
Source: WHO, October 2013.

Figure 4.5.2 : Children <6 months who are exclusively breastfed (%) in the African Region, 2012



Source: WHO, October 2013.

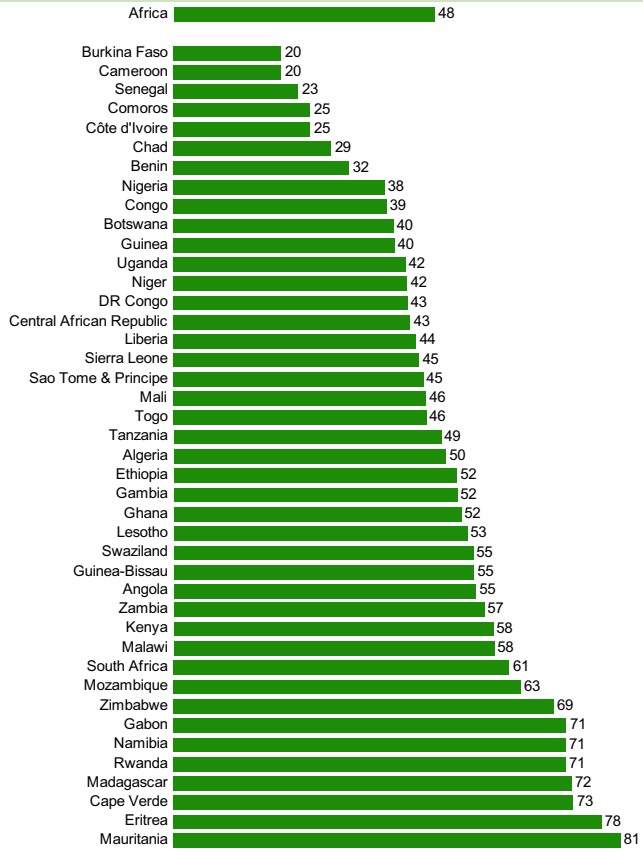
Figure 4.5.3 : Children <6 months who are exclusively breastfed (%) in the African Region, 2007-2012



Countries without data are not included in the chart.

Source: WHO, October 2013.

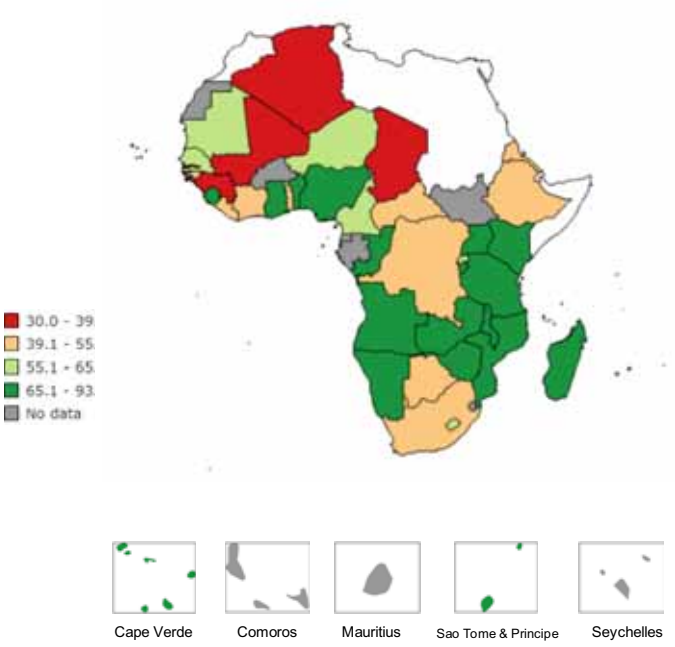
Figure 4.5.4 : Early initiation of breastfeeding (%) in the African Region, 2006-2011



Countries without data are not included in the chart.

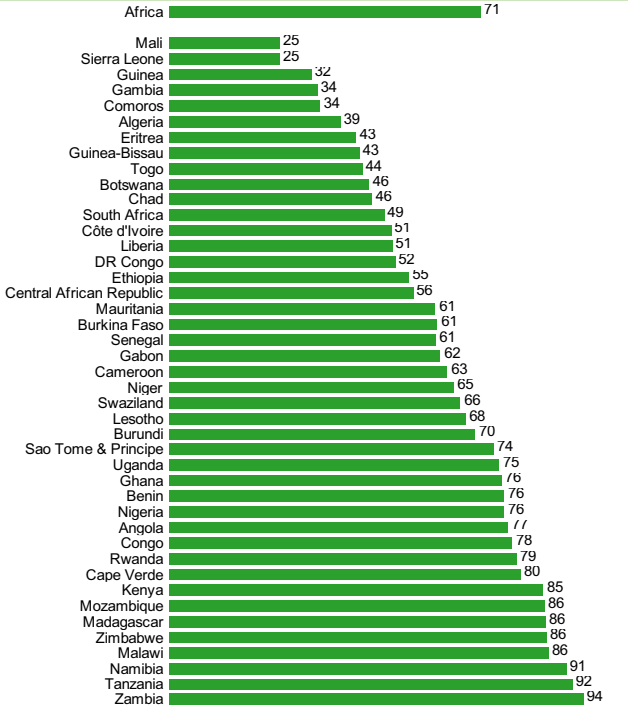
Source: UNICEF 2013.

Figure 4.5.5: Complementary feed (% of children 6-8 months who are introduced to solid, semi-solid or soft foods), African Region, 2011



Source: UNICEF 2013.

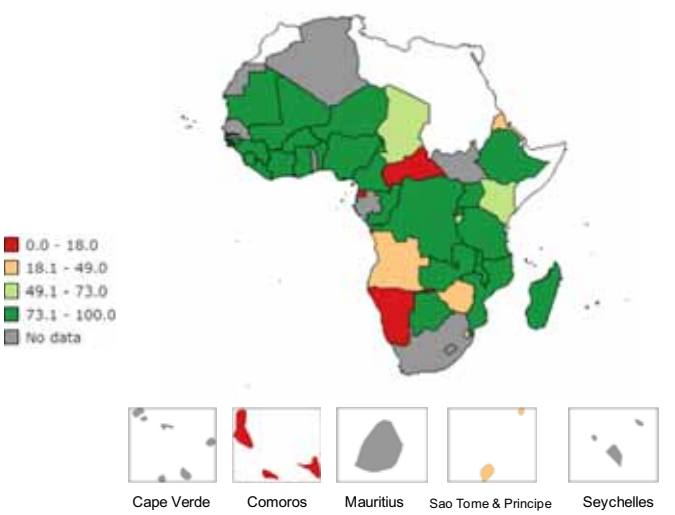
Figure 4.5.6: Complementary feed (% of children 6-8 months who are introduced to solid, semi-solid or soft foods), African Region, 2011



Countries without data are not included in the chart.

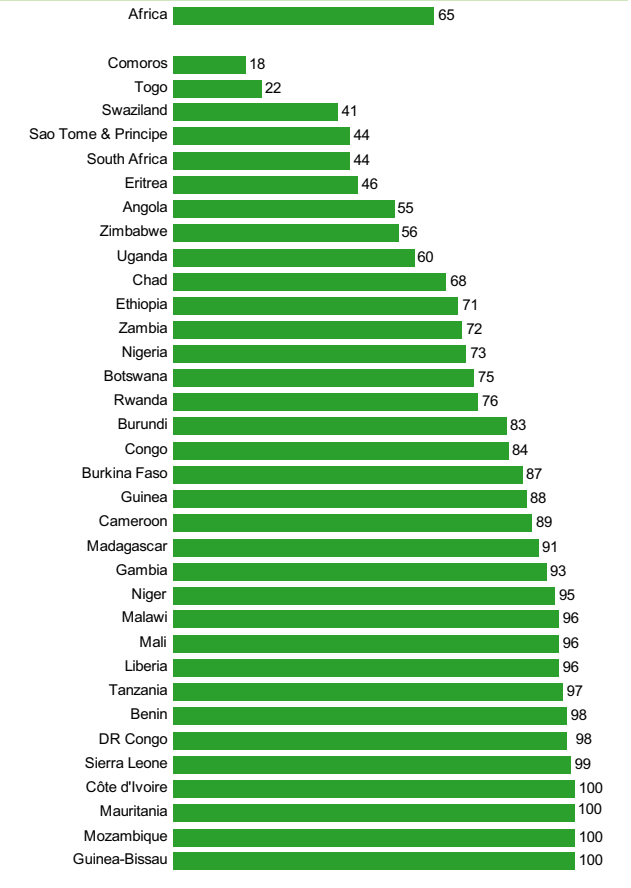
Source: UNICEF 2013.

Figure 4.5.7: Vitamin A supplementation coverage rate (% of children ages 6-59 months), African Region, 2012



Source: UNICEF 2013.

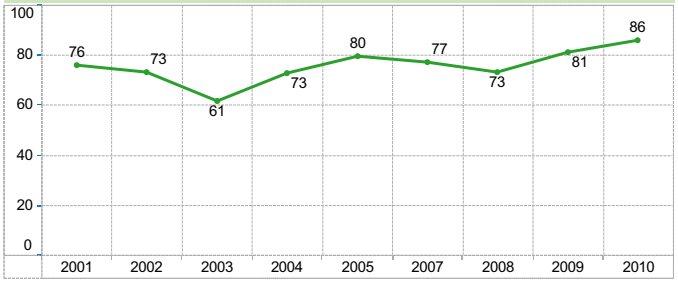
Figure 4.5.8: Vitamin A supplementation coverage rate (% of children ages 6-59 months), African Region, 2011



Countries without data are not included in the chart.

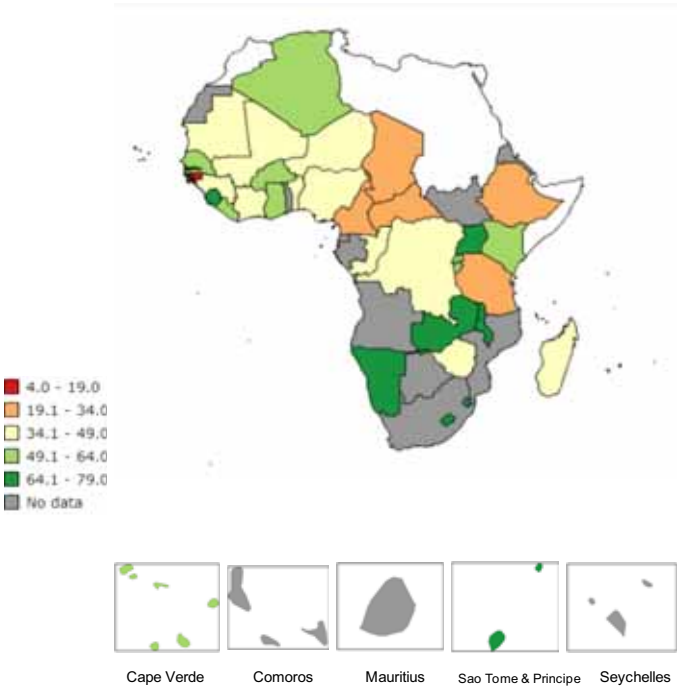
Source: UNICEF 2013.

Figure 4.5.9: Trend in Vitamin A supplementation coverage rate (% of children ages 6-59 months), African Region, 2001-2012



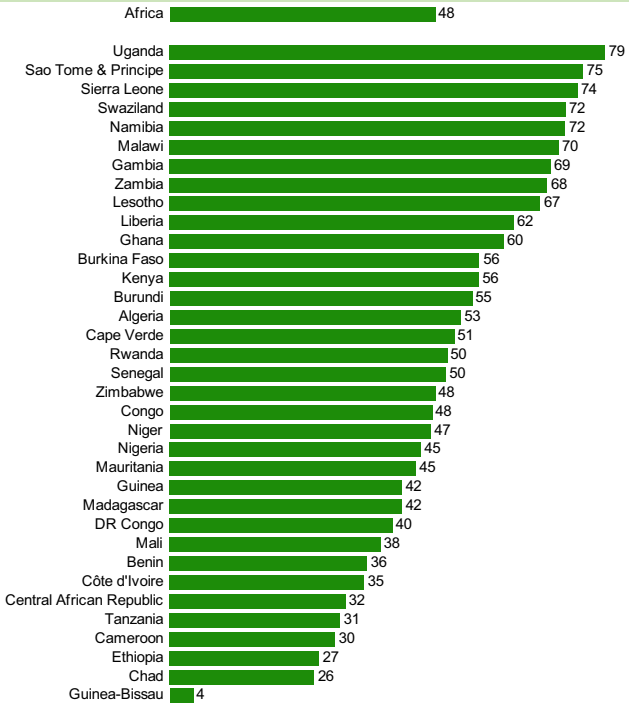
Source: UNICEF 2013.

Figure 4.5.10: Percentage of children aged <5 years with ARI symptoms taken to a health facility, African Region, 2010



Source: WHO, October 2013.

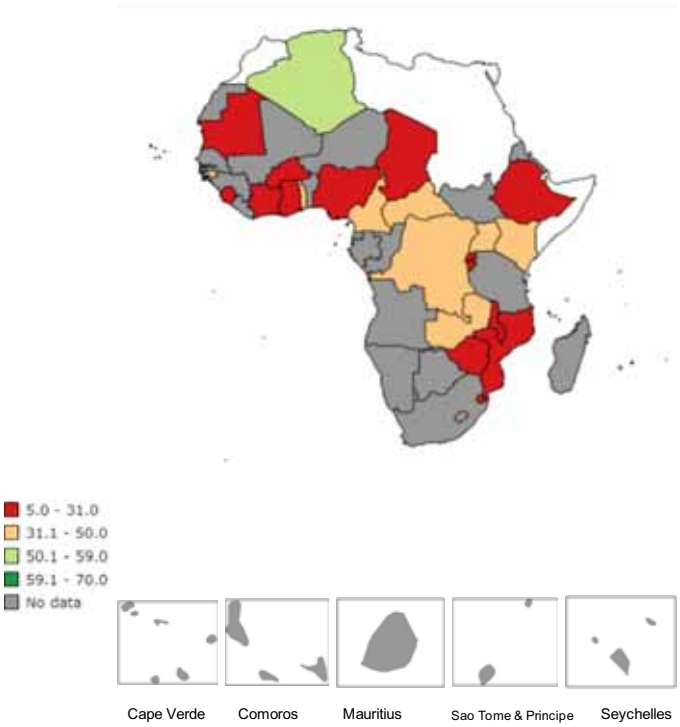
Figure 4.5.11: Percentage of children aged <5 years with ARI symptoms taken to a health facility in the African Region, 2005-2011



Countries without data are not included in the chart.

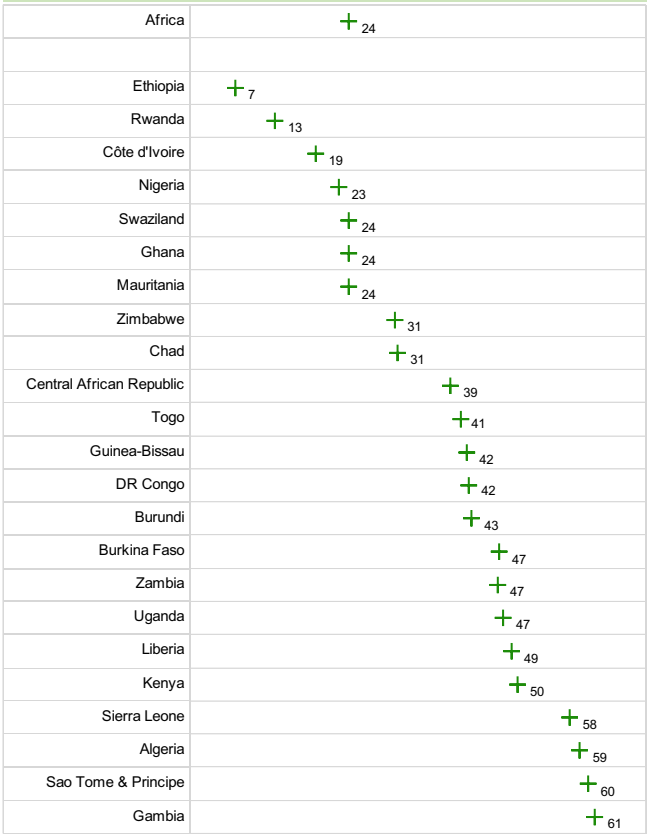
Source: WHO, October 2013.

Figure 4.5.12: Percentage of children aged <5 years with ARI symptoms who took antibiotic treatment in the African Region, 2011



Source: WHO, October 2013.

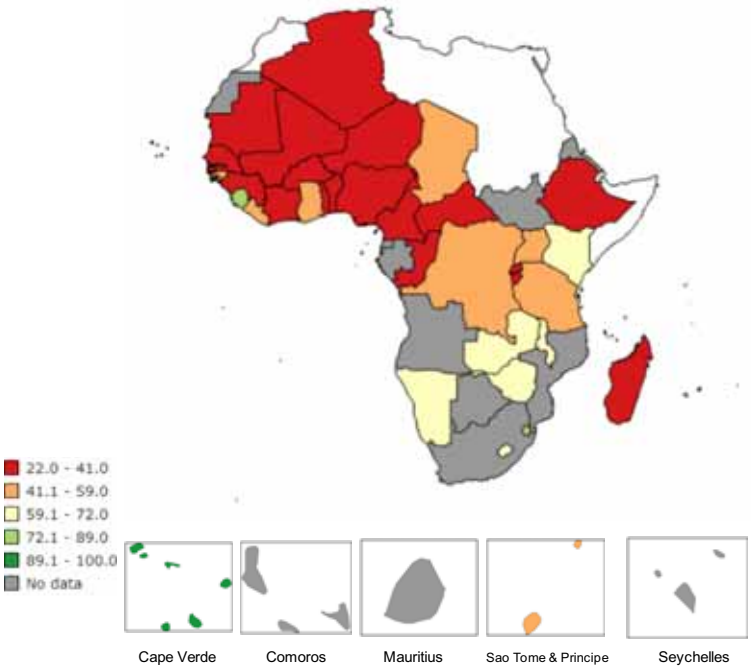
Figure 4.5.13: Percentage of children aged <5 years with ARI symptoms who took antibiotic treatment in the African Region, 2011



Countries without data are not included in the chart.

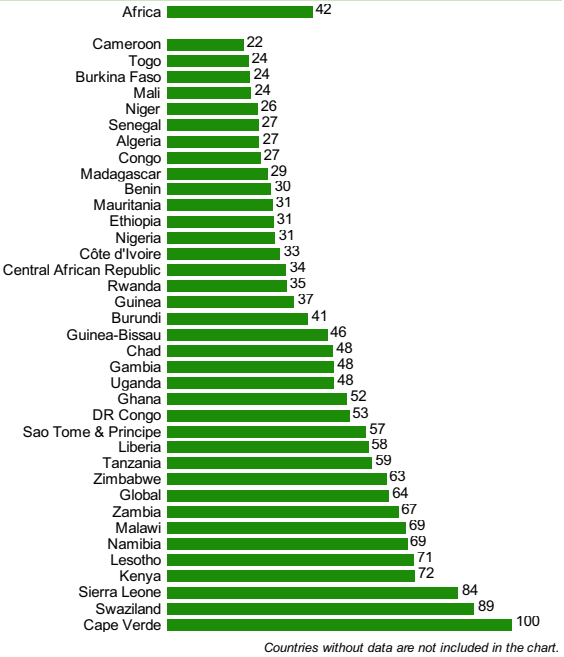
Source: WHO, October 2013.

Figure 4.5.14: Percentage of children aged <5 years with diarrhoea receiving ORT in the African Region, 2011



Source: WHO, October 2013.

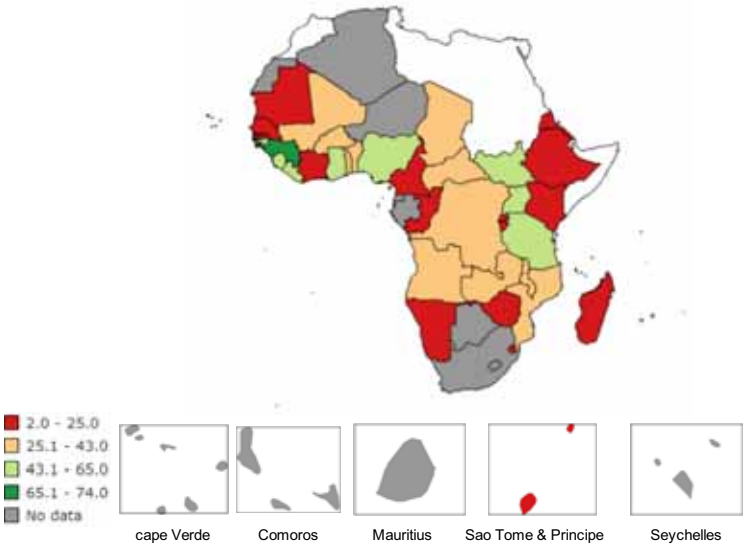
Figure 4.5.15: Percentage of children aged <5 years with diarrhoea receiving ORT in the African Region, 2005-2011



Countries without data are not included in the chart.

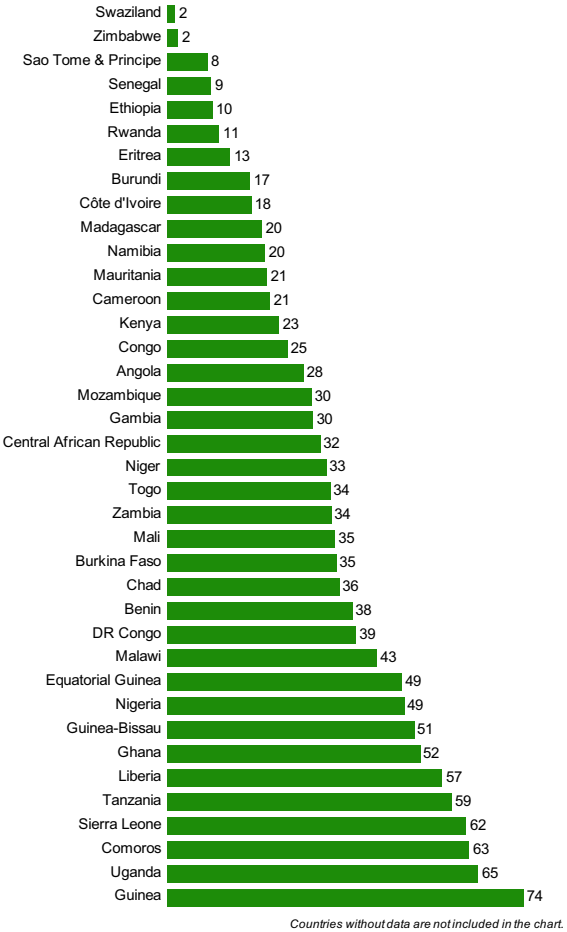
Source: WHO, October 2013.

Figure 4.5.16: Percentage of children aged <5 years with fever who received treatment with any antimalarial in the African Region in 2010



Source: WHO, October 2013.

Figure 4.5.17: Percentage of children aged <5 years with fever who received treatment with any antimalarial in the African Region, 2007-2011



Countries without data are not included in the chart.

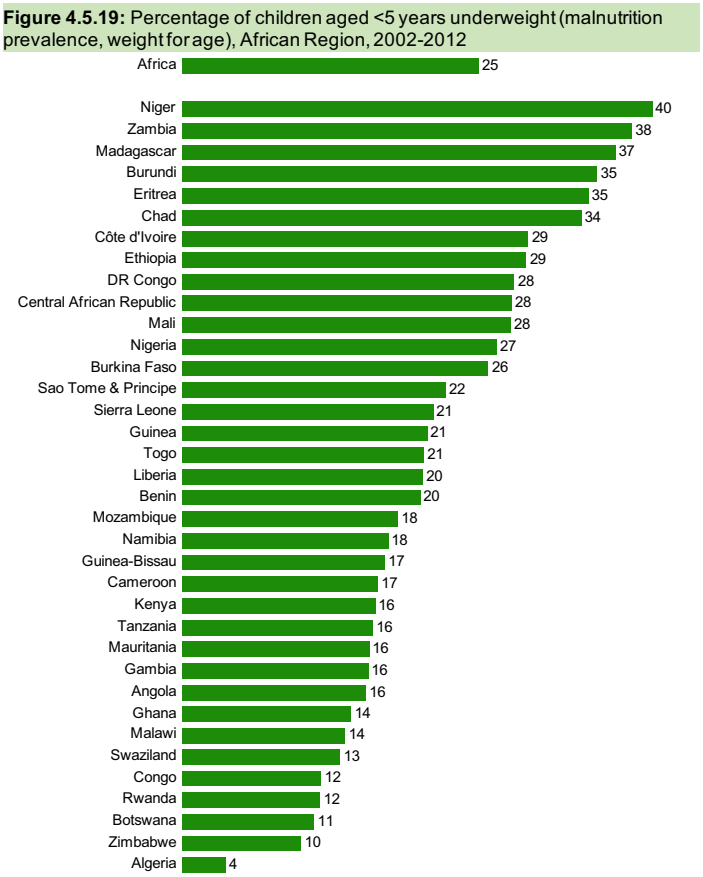
Source: WHO, October 2013.

Figure 4.5.18: Percentage of children receiving health care by WHO Regions in 2011

	Africa	Africa	Americas	South-East Asia	Europe	Eastern Mediterranean	Western Pacific	Global
Children aged <5 years with ARI symptoms taken to a health facility (%)		48		83		60		78
Children aged <5 years with ARI symptoms who took antibiotic treatment (%)		24		63		59		
Children aged <5 years with diarrhoea receiving ORT (%)		42		68		44		64
Exclusive BF<6 months	35		30	47	25	35		38
Vitamin A supplementation coverage rate (% of children ages 6-59 months)		65		42		15		50

Source: WHO, October 2013.

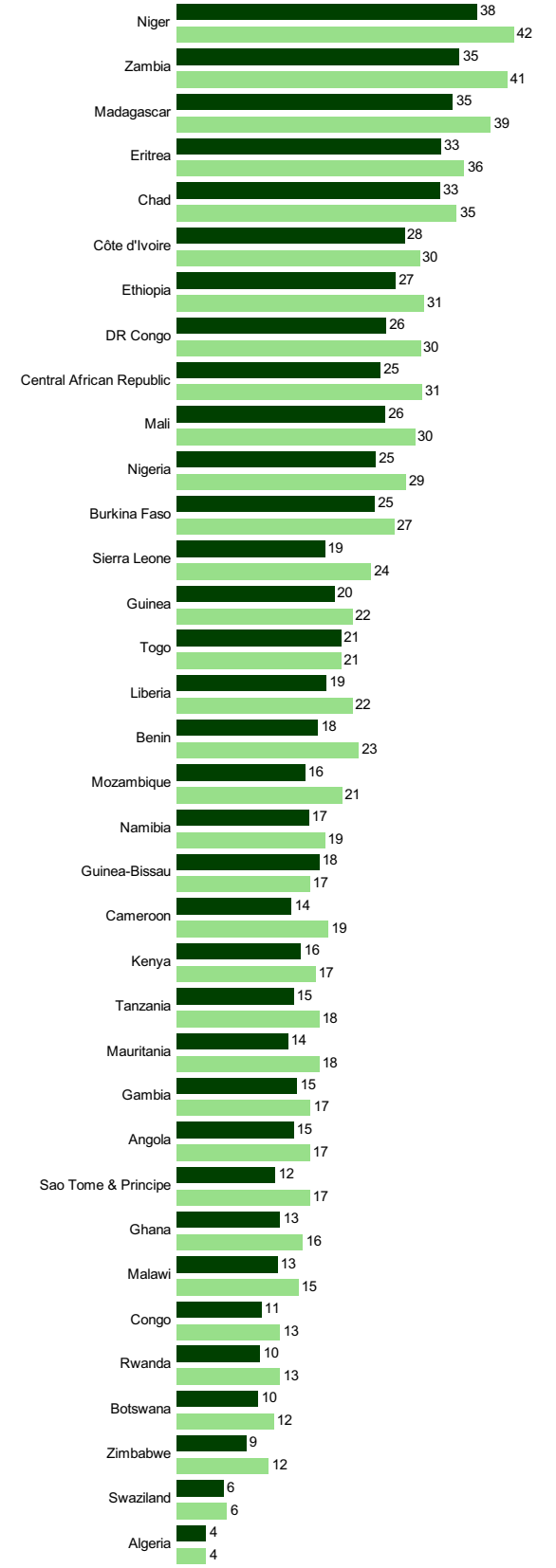
Figure 4.5.19: Percentage of children aged <5 years underweight (malnutrition prevalence, weight for age), African Region, 2002-2012



Countries without data are not included in the chart.

Source: WHO, October 2013.

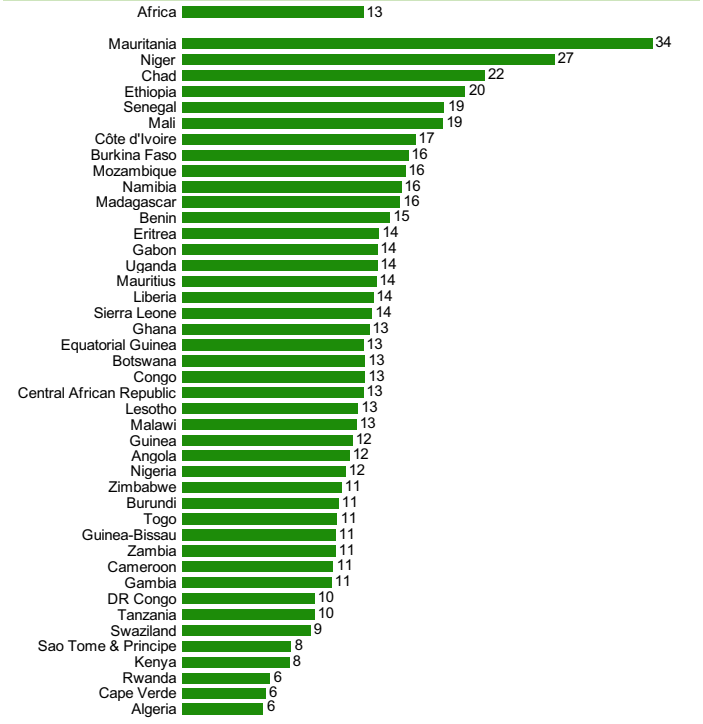
Figure 4.5.20: Percentage of children aged <5 years underweight (malnutrition prevalence, weight for age), by sex in the African Region, 2002-2012



Countries without data are not included in the chart.

Source: WHO, October 2013.

Figure 4.5.21: Percentage of low-birthweight babies, Sub-saharan African Region, 2005-2010

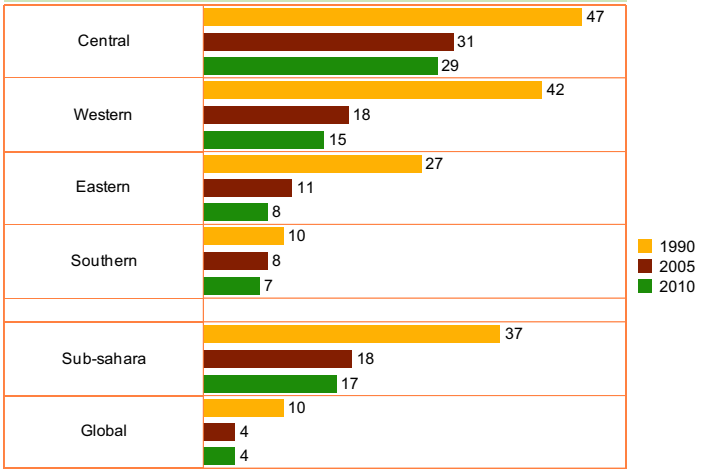


Countries without data are not included in the chart.

Source: UNICEF 2013.

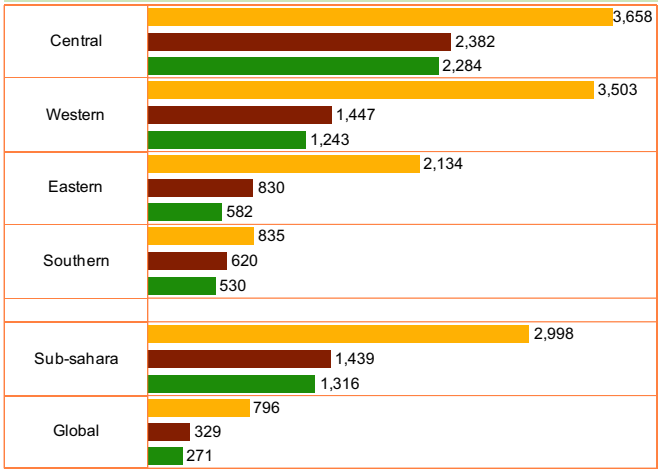
Rotaviral enteritis

Figure 4.5.22 : Mortality rate due to Rotaviral enteritis per 100,000 in 1990, 2005 and 2010, by sub-saharan region



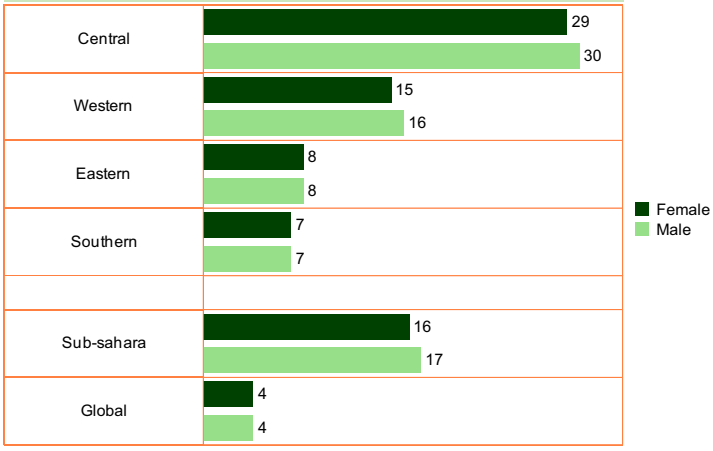
Source: IHME: GBD Study 2010

Figure 4.5.23: Disability Adjusted Life Years (DALY) rate due to Rotaviral enteritis per 100,000 in 1990, 2005 and 2010, by sub-saharan region



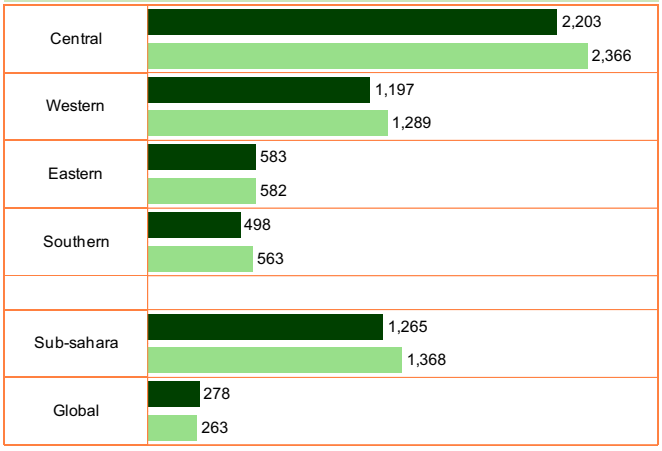
Source: IHME: GBD Study 2010

Figure 4.5.24 : Mortality rate due to Rotaviral enteritis per 100,000 in 2010, by sub-saharan region and by sex



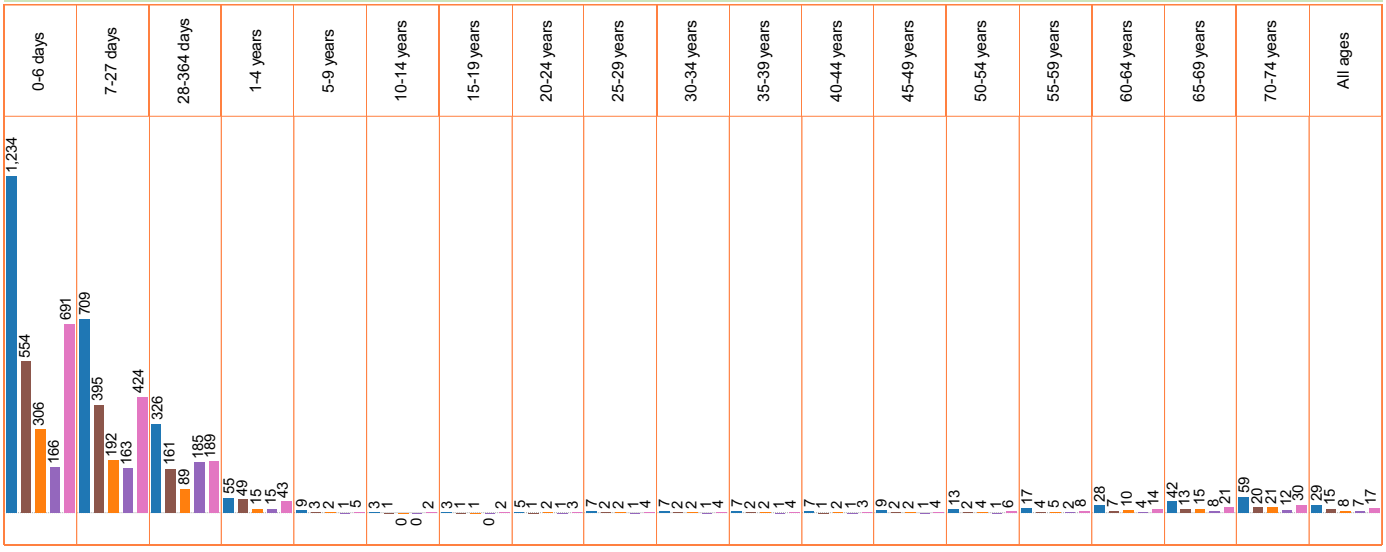
Source: IHME: GBD Study 2010

Figure 4.5.25: Disability Adjusted Life Years (DALY) rate due to Rotaviral enteritis per 100,000 in 2010, by sub-saharan region and by sex



Source: IHME: GBD Study 2010

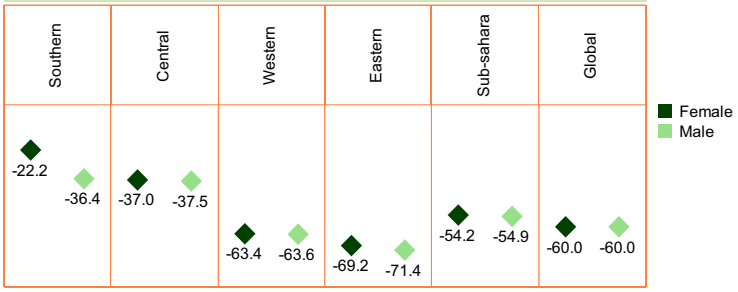
Figure 4.5.26 : Mortality rate due to Rotaviral enteritis per 100,000 in 2010, by age and by sub-saharan region



Source: IHME: GBD Study 2010

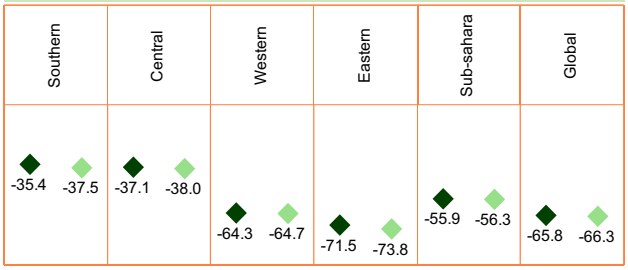
Rotaviral enteritis

Figure 4.5.27 : Percentage change in Mortality rate due to Rotaviral enteritis between 1990 and 2010, by sub-saharan region and by sex



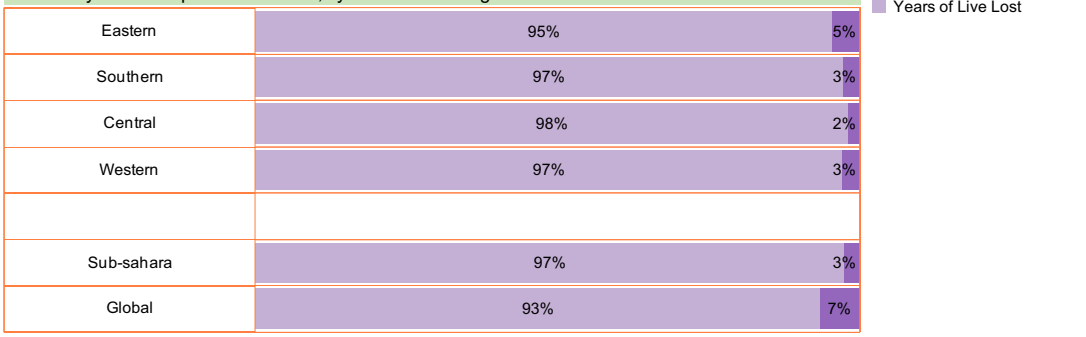
Source: IHME: GBD Study 2010

Figure 4.5.28 : Percentage change in Disability Adjusted Life Years (DALY) rate due to Rotaviral enteritis in 1990-2010, by sub-saharan region and by sex



Source: IHME: GBD Study 2010

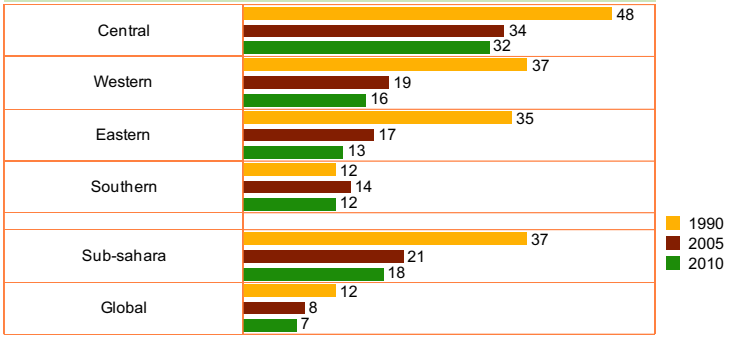
Figure 4.5.29 : Percentage distribution of Disability Adjusted Life Years (DALY) due to Rotaviral enteritis by main components in 2010, by sub-saharan region



Source: IHME: GBD Study 2010

Other diarrheal diseases*

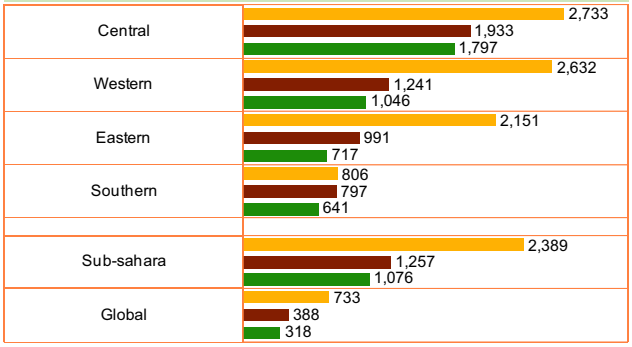
Figure 4.5.30 : Mortality rate due to other diarrheal diseases per 100,000 in 1990, 2005 and 2010, by sub-saharan region



** Diarrheal diseases other than Rotaviral enteritis.*

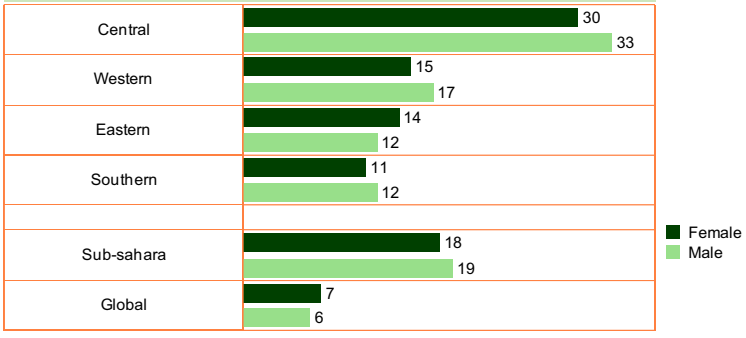
Source: IHME: GBD Study 2010

Figure 4.5.31: Disability Adjusted Life Years (DALY) rate due to other diarrheal diseases per 100,000 in 1990, 2005 and 2010, by sub-saharan region



Source: IHME: GBD Study 2010

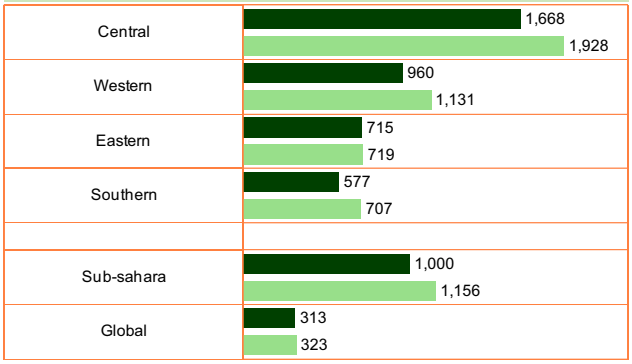
Figure 4.5.32 : Mortality rate due to other diarrheal diseases per 100,000 in 2010, by sub-saharan region and by sex



** Diarrheal diseases other than Rotaviral enteritis.*

Source: IHME: GBD Study 2010

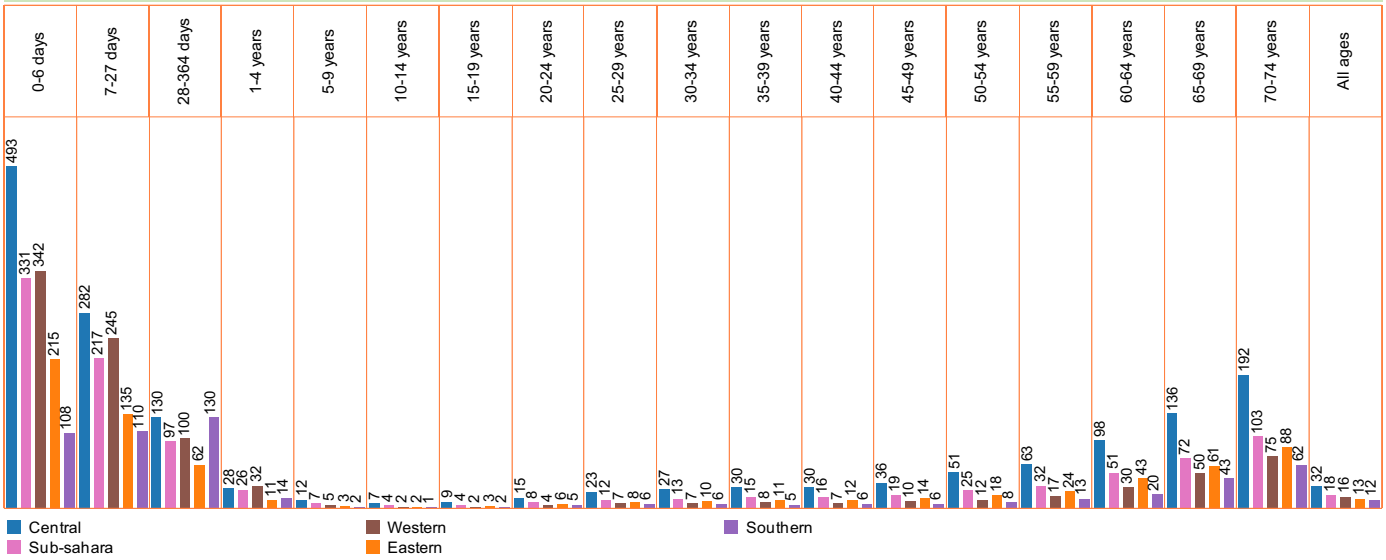
Figure 4.5.33: Disability Adjusted Life Years (DALY) rate due to other diarrheal diseases per 100,000 in 2010, by sub-saharan region and by sex



Source: IHME: GBD Study 2010

Other diarrheal diseases*

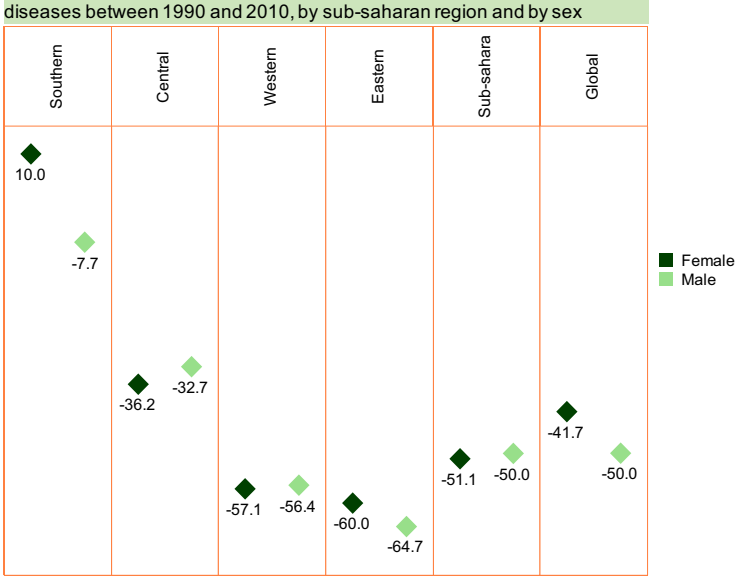
Figure 4.5.34 : Mortality rate due other diarrheal diseases per 100,000 in 2010, by age and by sub-saharan region



** Diarrheal diseases other than Rotaviral enteritis.*

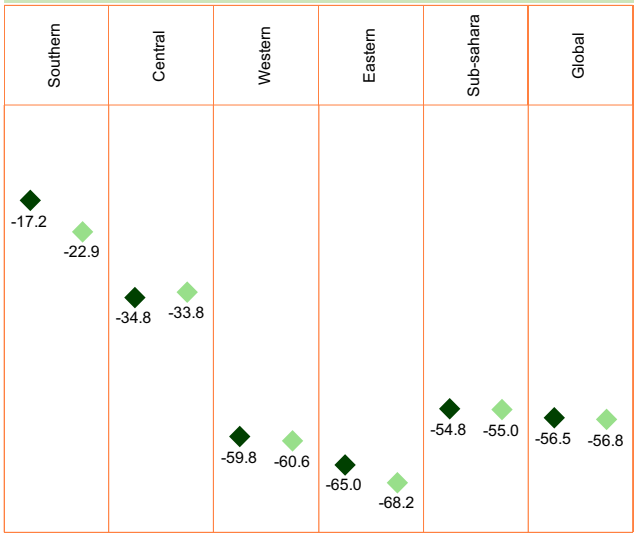
Source: IHME: GBD Study 2010

Figure 4.5.35 : Percentage change in Mortality rate due to other diarrheal diseases between 1990 and 2010, by sub-saharan region and by sex



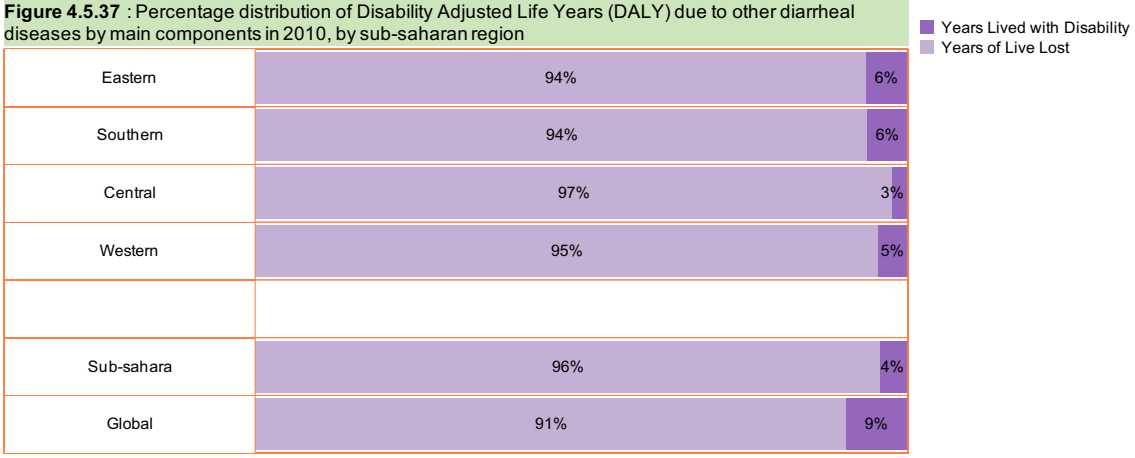
Source: IHME: GBD Study 2010

Figure 4.5.36 : Percentage change in Disability Adjusted Life Years (DALY) due to other diarrheal diseases in 1990-2010, by sub-saharan region and by sex



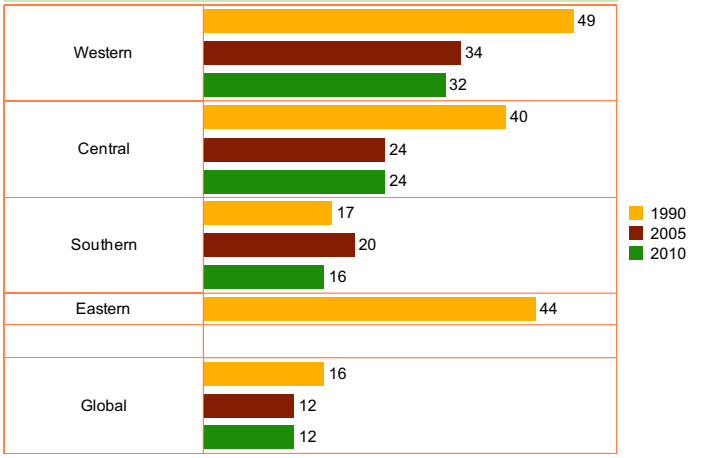
Source: IHME: GBD Study 2010

Figure 4.5.37 : Percentage distribution of Disability Adjusted Life Years (DALY) due to other diarrheal diseases by main components in 2010, by sub-saharan region



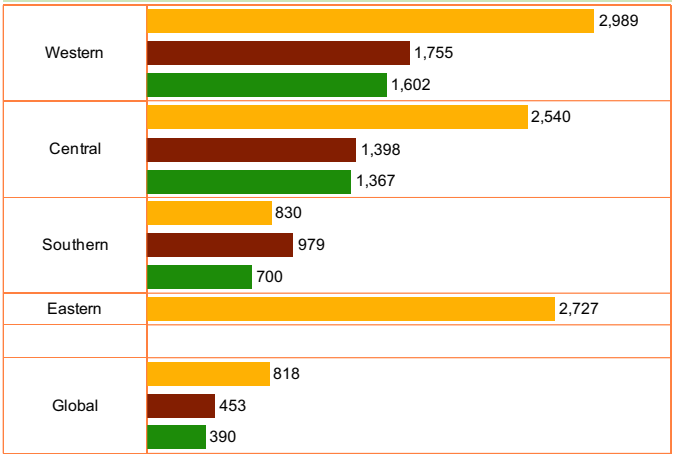
Pneumococcal pneumonia

Figure 4.5.38 : Mortality rate due to Pneumococcal pneumonia per 100,000 in 1990, 2005 and 2010, by sub-saharan region



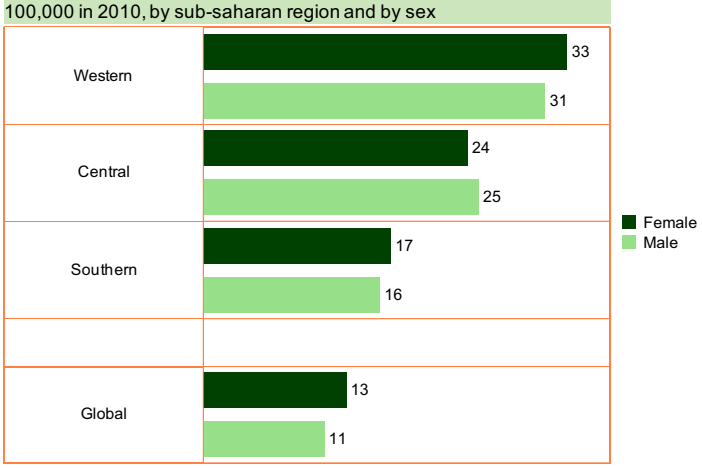
Source: IHME: GBD Study 2010

Figure 4.5.39: Disability Adjusted Life Years (DALY) rate due to Pneumococcal pneumonia per 100,000 in 1990,2005 and 2010, by sub-saharan region



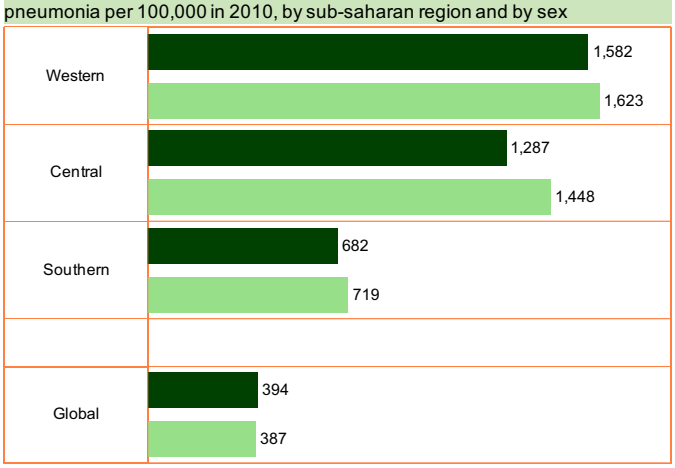
Source: IHME: GBD Study 2010

Figure 4.5.40 : Mortality rate due to Pneumococcal pneumonia per 100,000 in 2010, by sub-saharan region and by sex



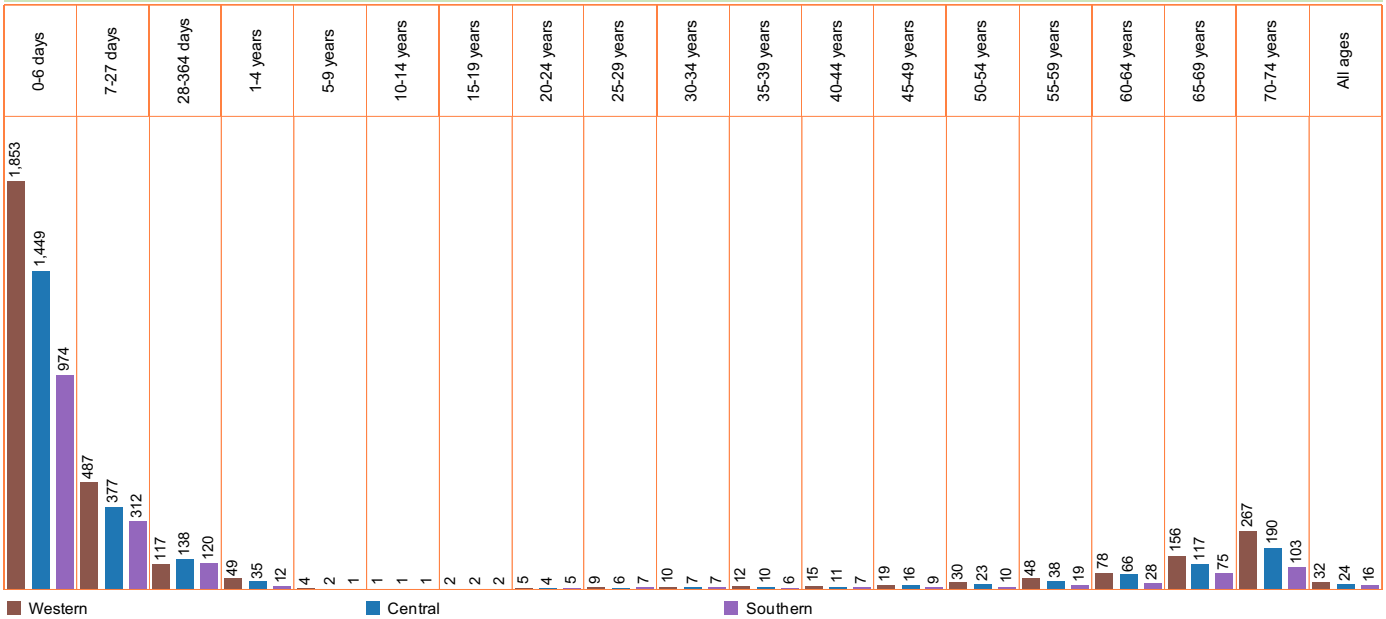
Source: IHME: GBD Study 2010

Figure 4.5.41: Disability Adjusted Life Years (DALY) rate due to Pneumococcal pneumonia per 100,000 in 2010, by sub-saharan region and by sex



Source: IHME: GBD Study 2010

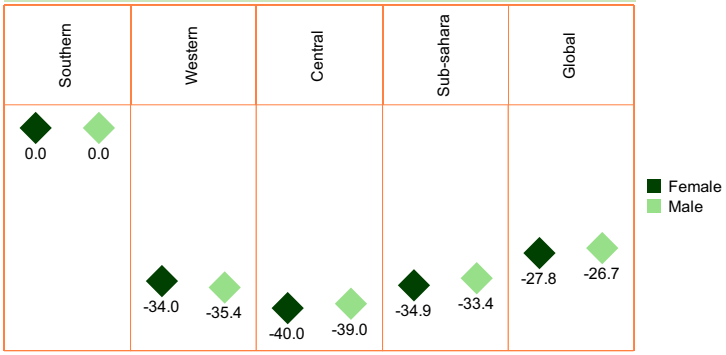
Figure 4.5.42 : Mortality rate due to Pneumococcal pneumonia per 100,000 in 2010, by age and by sub-saharan region



Source: IHME: GBD Study 2010

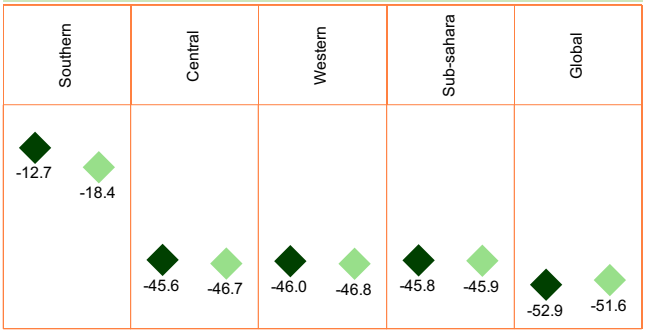
Pneumococcal pneumonia

Figure 4.5.43 : Percentage change in Mortality rate due to Pneumococcal pneumonia between 1990 and 2010, by sub-saharan region and by sex



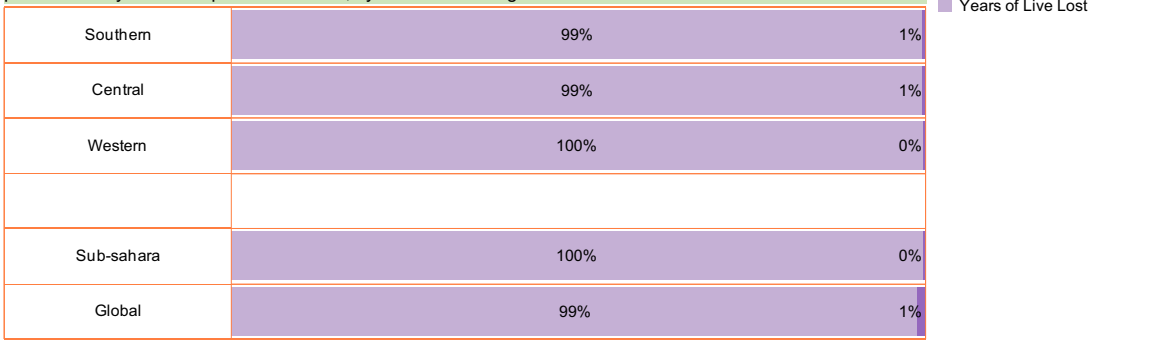
Source: IHME: GBD Study 2010

Figure 4.5.44 : Percentage change in Disability Adjusted Life Years (DALY) rate due to Pneumococcal pneumonia in 1990-2010, by sub-saharan region and by sex



Source: IHME: GBD Study 2010

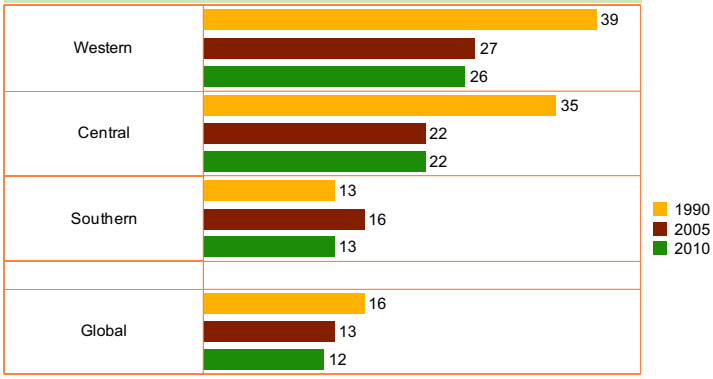
Figure 4.5.45 : Percentage distribution of Disability Adjusted Life Years (DALY) due to Pneumococcal pneumonia by main components in 2010, by sub-saharan region



Source: IHME: GBD Study 2010

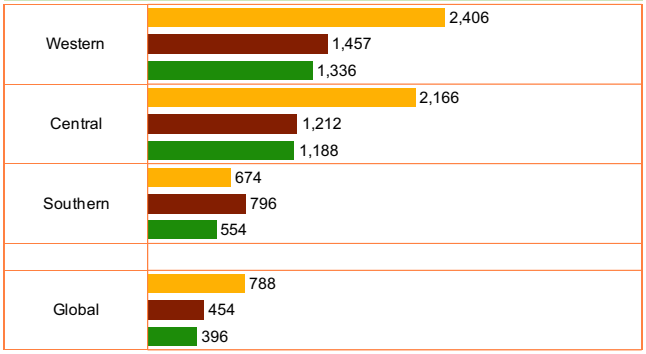
Other lower respiratory infections

Figure 4.5.46 : Mortality rate due to other lower respiratory infections per 100,000 in 1990, 2005 and 2010, by sub-saharan region



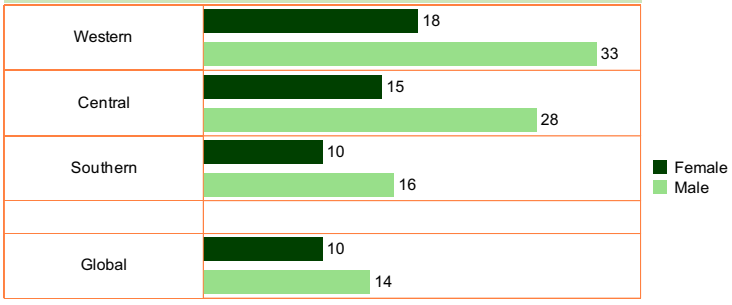
Source: IHME: GBD Study 2010

Figure 4.5.47: Disability Adjusted Life Years (DALY) rate due to other lower respiratory infections per 100,000 in 1990,2005 and 2010, by sub-saharan region



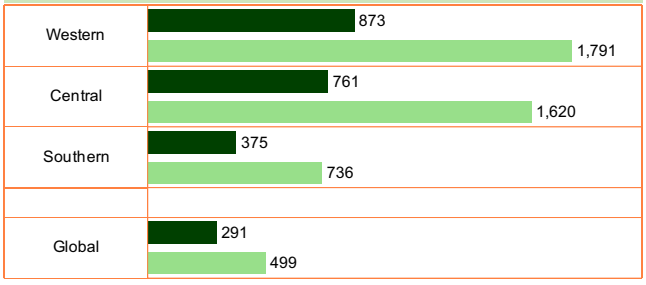
Source: IHME: GBD Study 2010

Figure 4.5.48 : Mortality rate due to other lower respiratory infections per 100,000 in 2010, by sub-saharan region and by sex



Source: IHME: GBD Study 2010

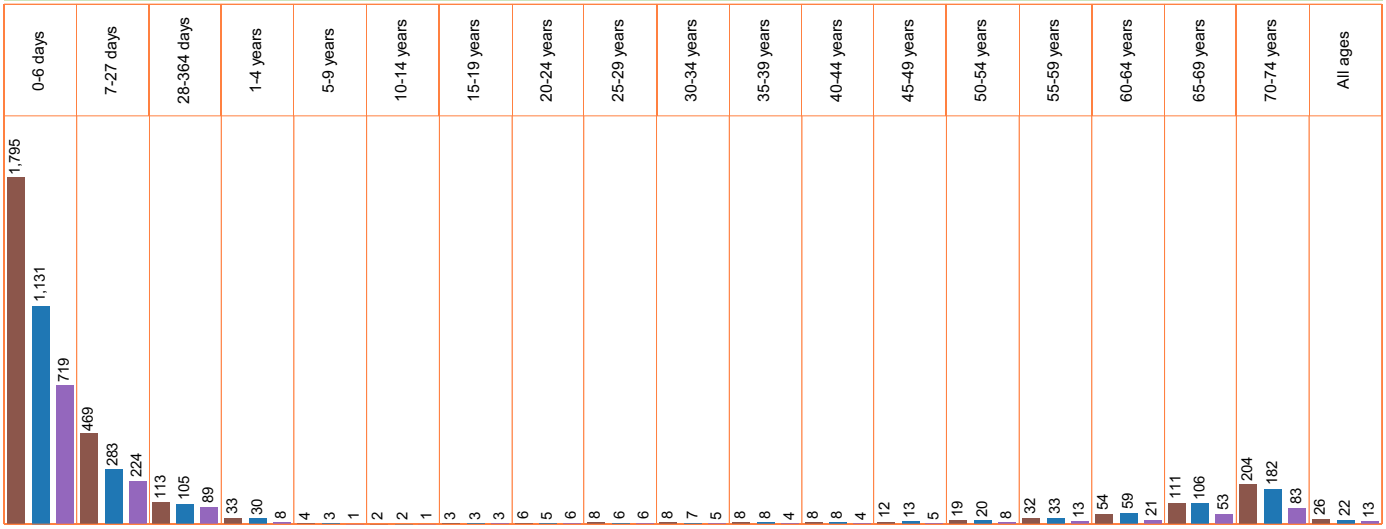
Figure 4.5.49: Disability Adjusted Life Years (DALY) rate due to other lower respiratory infections per 100,000 in 2010, by sub-saharan region and by sex



Source: IHME: GBD Study 2010

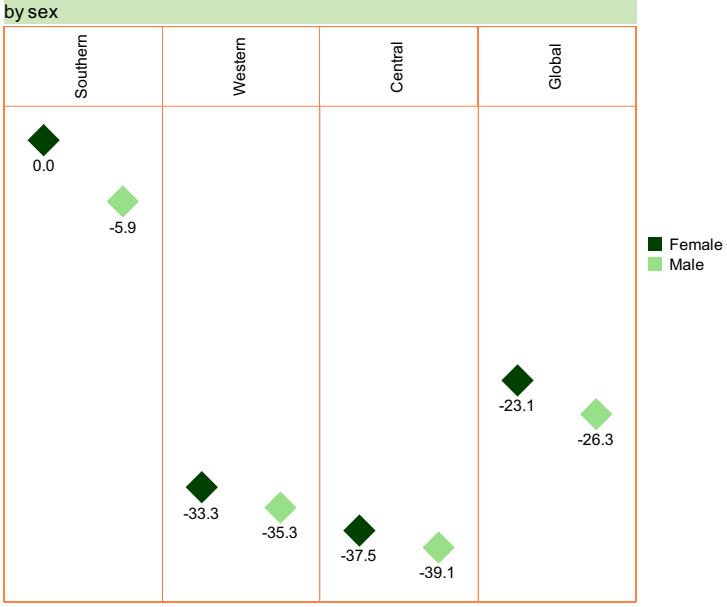
Other lower respiratory infections

Figure 4.5.50 : Mortality rate due to other lower respiratory infections per 100,000 in 2010, by age and by sub-saharan region



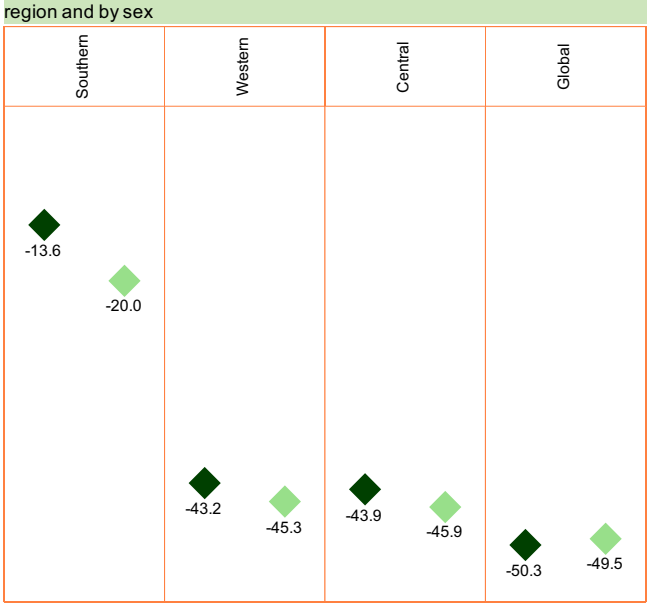
Source: IHME: GBD Study 2010

Figure 4.5.51 : Percentage change in Mortality rate due to other lower respiratory infections between 1990 and 2010, by sub-saharan region and by sex



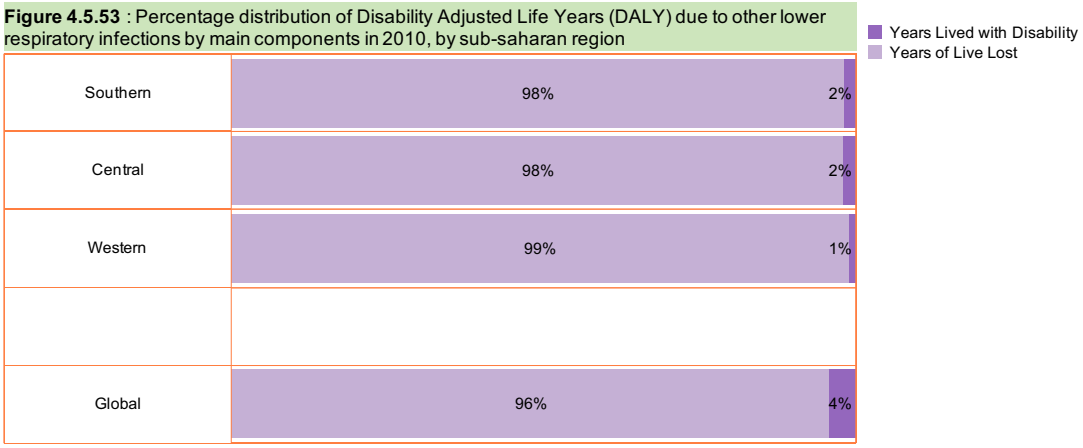
Source: IHME: GBD Study 2010

Figure 4.5.52 : Percentage change in Disability Adjusted Life Years (DALY) due to other lower respiratory infections in 1990-2010, by sub-saharan region and by sex



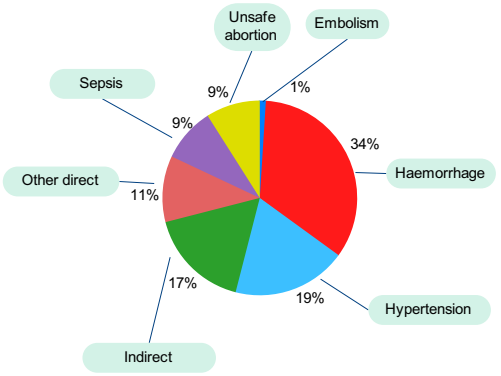
Source: IHME: GBD Study 2010

Figure 4.5.53 : Percentage distribution of Disability Adjusted Life Years (DALY) due to other lower respiratory infections by main components in 2010, by sub-saharan region



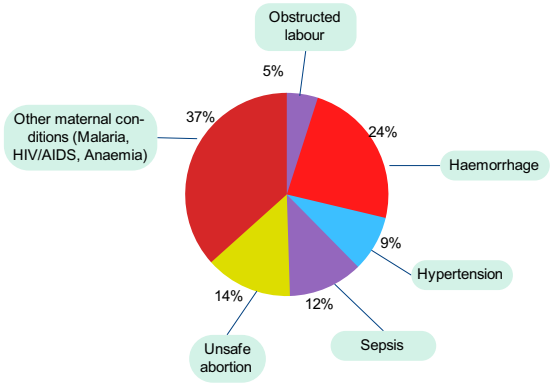
4.6 Maternal and newborn health

Figure 4.6.1: Main of causes of maternal death, Sub-Sahara Africa Region, 2010



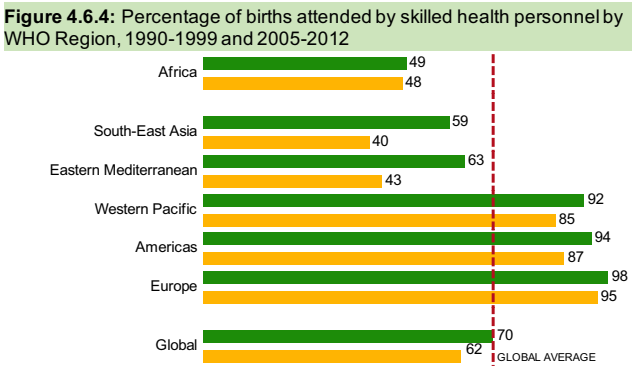
Source: WHO/UNICEF 2010.

Figure 4.6.3: Main of causes of maternal death, African Region, 2004



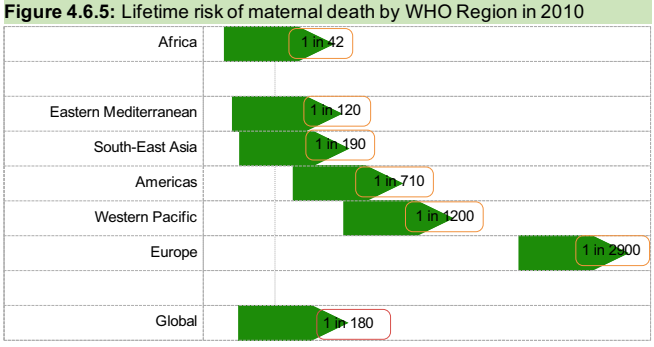
Source: WHO, Global burden of diseases (GBD) 2004

Figure 4.6.4: Percentage of births attended by skilled health personnel by WHO Region, 1990-1999 and 2005-2012



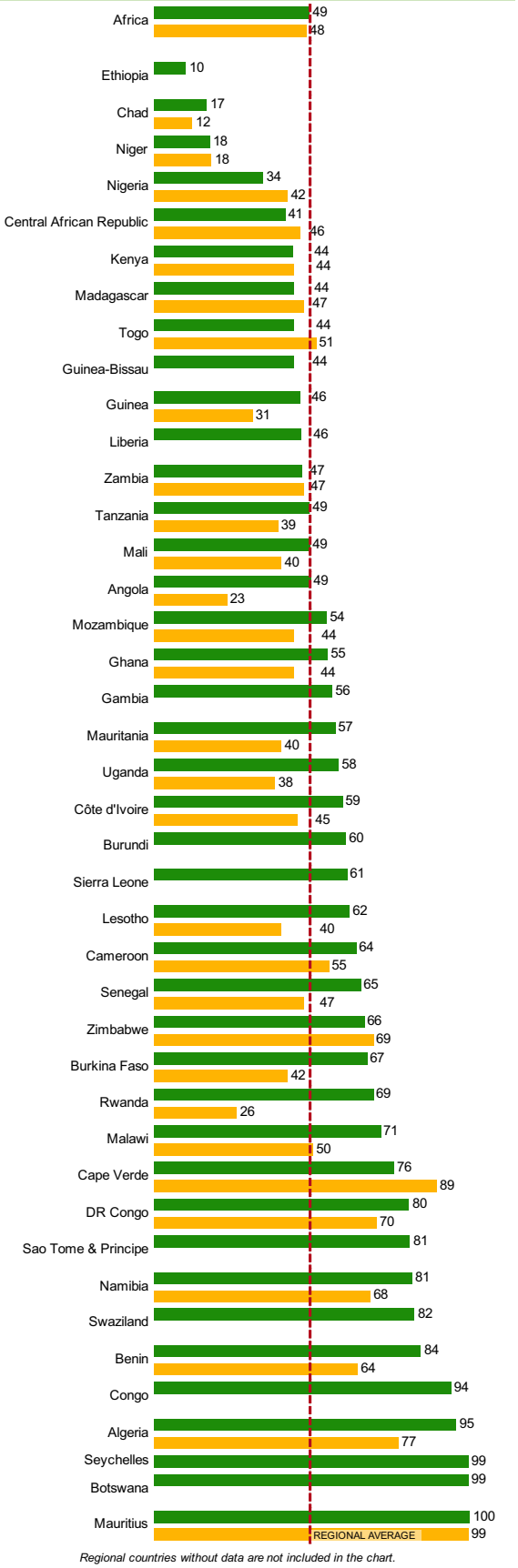
Source: WHO, September 2013.

Figure 4.6.5: Lifetime risk of maternal death by WHO Region in 2010



Source: WHO 2012.

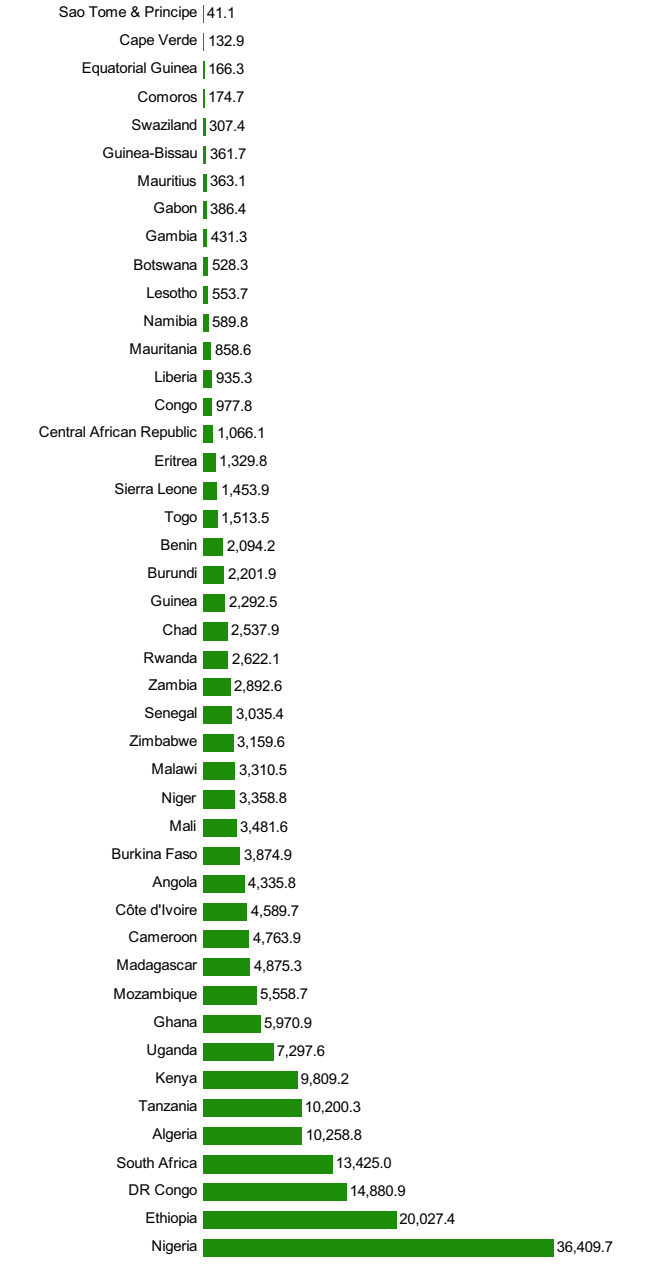
Figure 4.6.2: Percentage of births attended by skilled health personnel in 1990-1999 and 2005-2012 in the African Region



Regional countries without data are not included in the chart.

Source: WHO, September 2013.

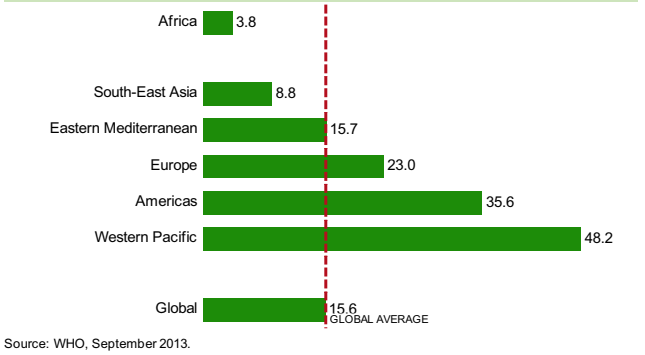
Figure 4.6.6: Total number of women of childbearing age (15-49 years), in 000s in the African Region, 2010



Regional countries without data are not included in the chart.

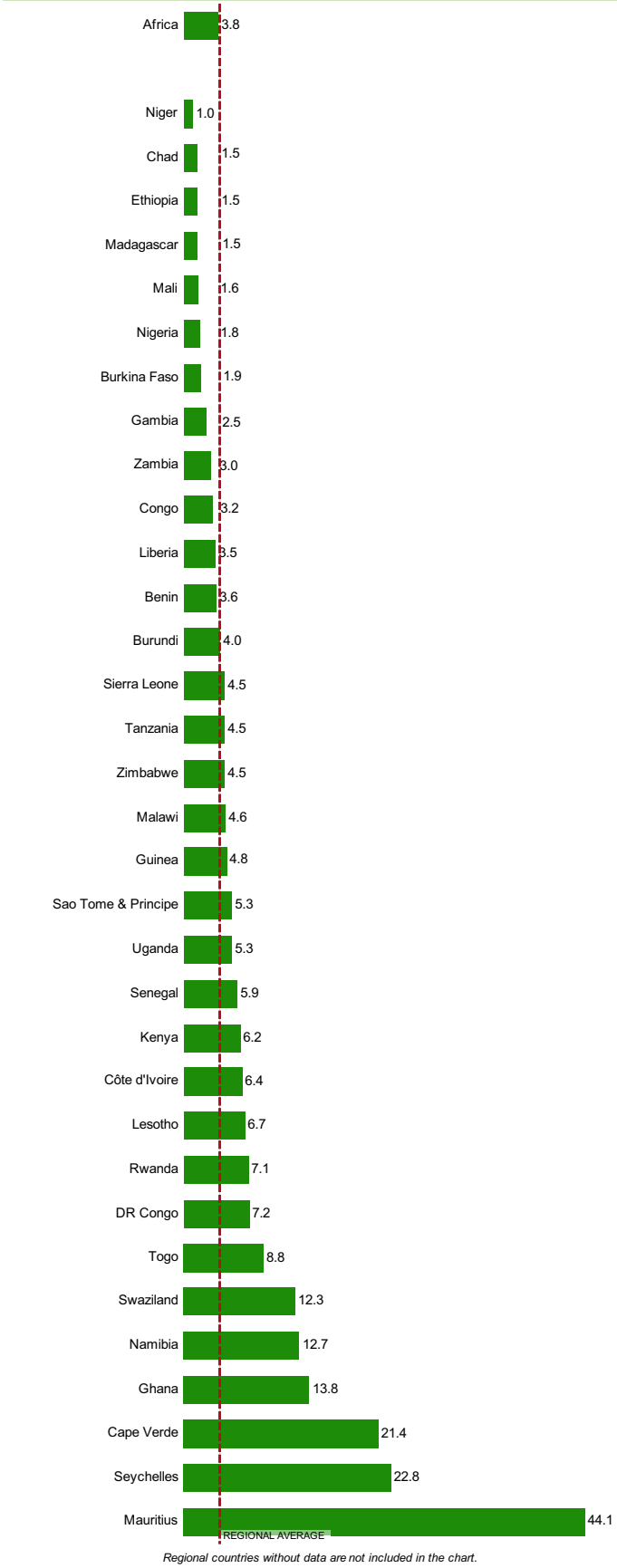
Source: UN, DESA, Population Division (2011). World Population Prospects: The 2010 Revision

Figure 4.6.8: Percentage of births by caesarean section (C-section rate) by WHO Regions, 2005-2011



Source: WHO, September 2013.

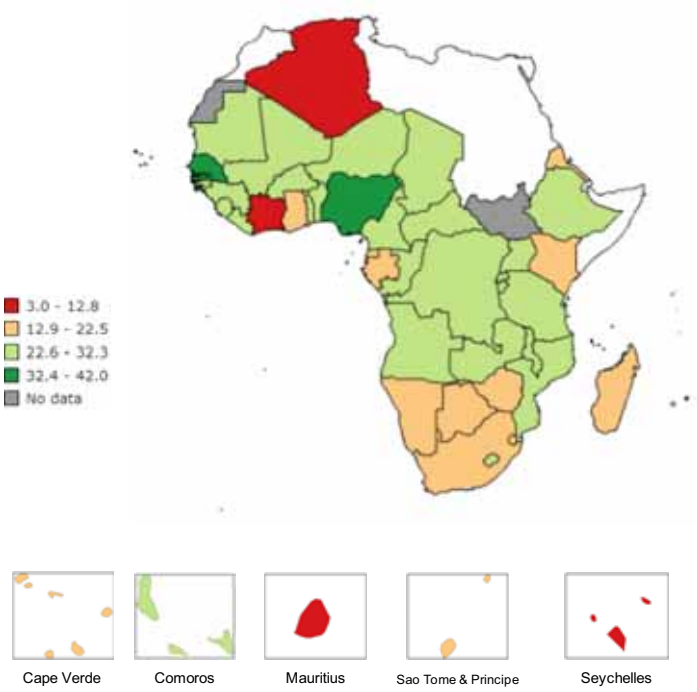
Figure 4.6.7: Percentage of births by caesarean section (C-section rate) in the African Region, 2005-2011



Regional countries without data are not included in the chart.

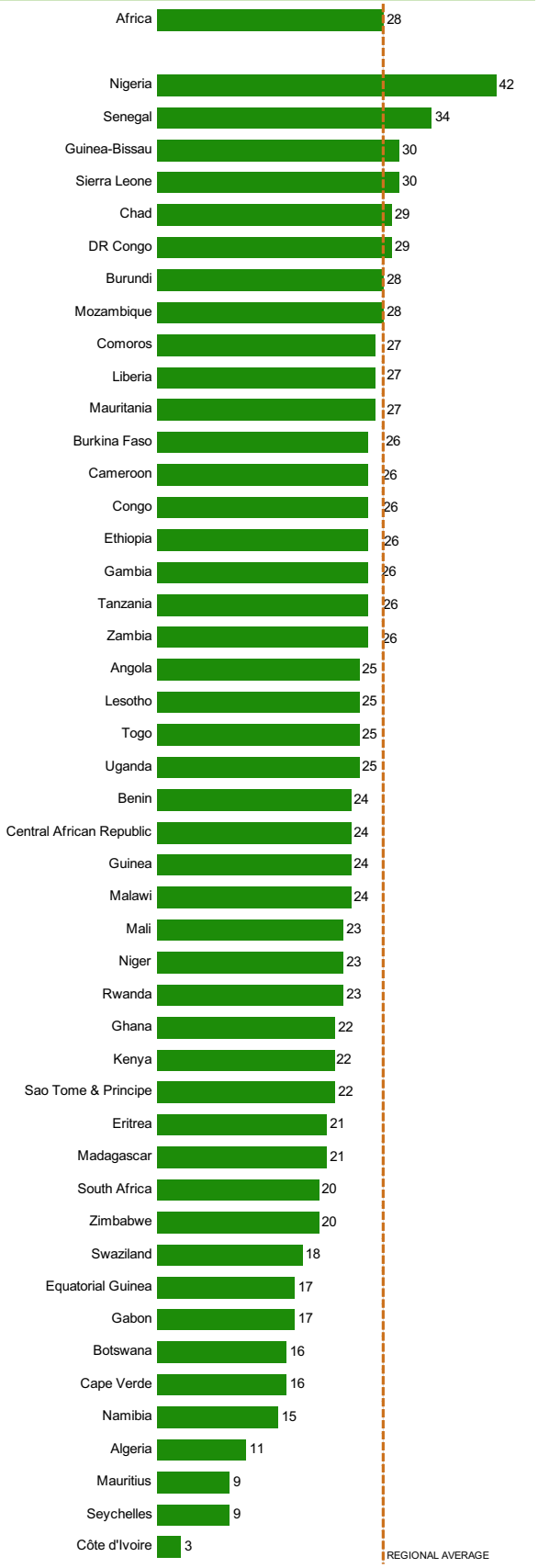
Source: WHO, September 2013.

Figure 4.6.9: Stillbirth rate (per 1000 total births) in the African Region, 2009



Source: WHO, September 2013.

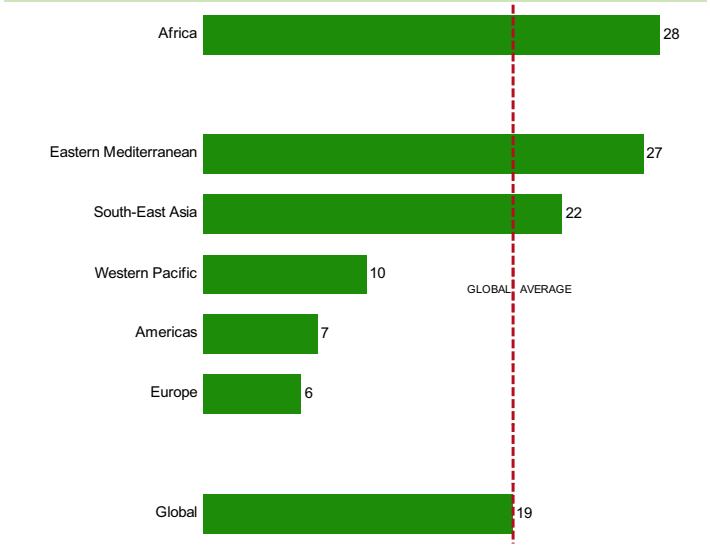
Figure 4.6.10: Stillbirth rate (per 1000 total births) in the African Region, 2009



Regional countries without data are not included in the chart.

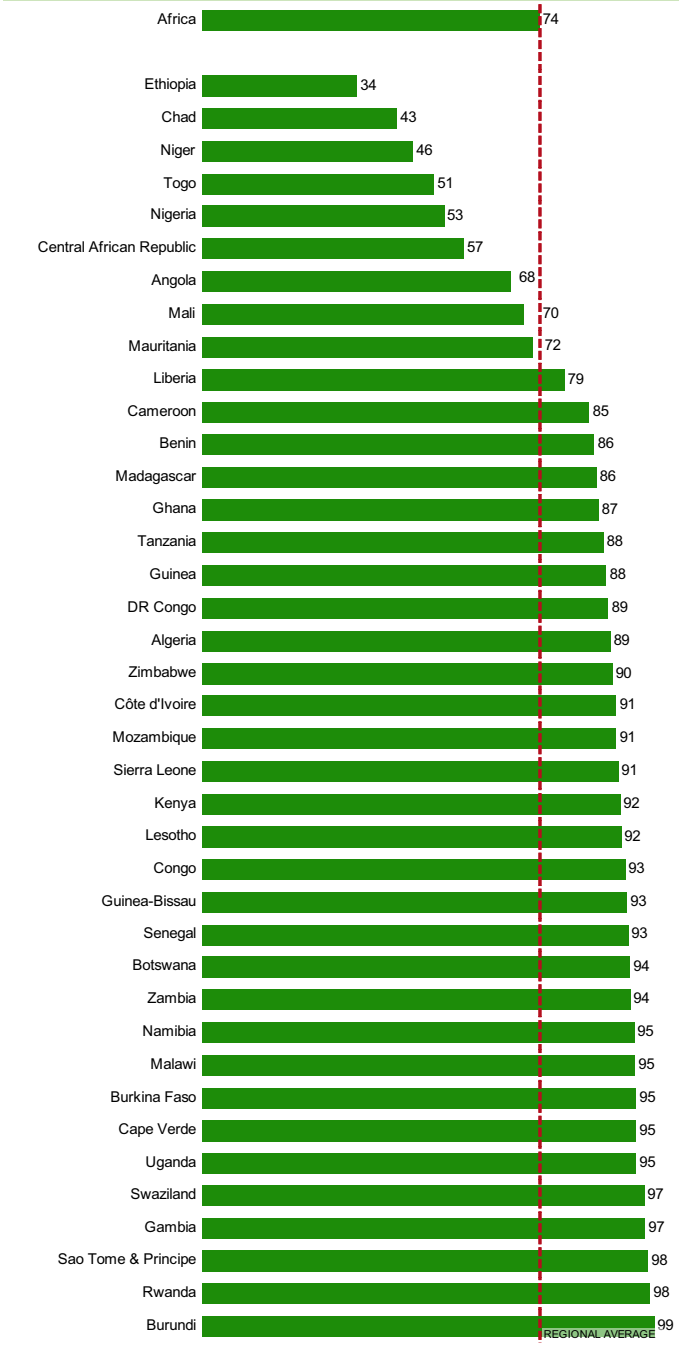
Source: WHO, September 2013.

Figure 4.6.11: Stillbirth rate (per 1000 total births) by WHO Region, 2009



Source: WHO, September 2013.

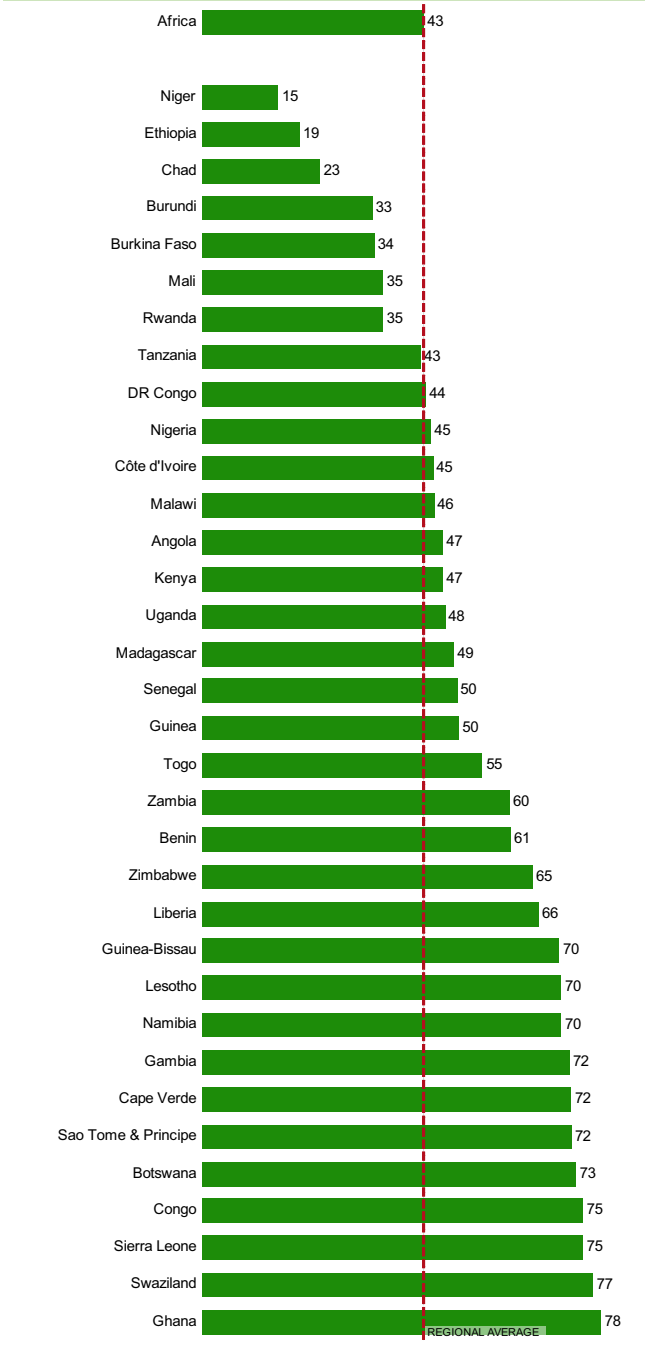
Figure 4.6.12: Percentage of Antenatal care coverage - at least one visit (ANC1) in the African Region, 2005-2012



Regional countries without data are not included in the chart.

Source: WHO, September 2013.

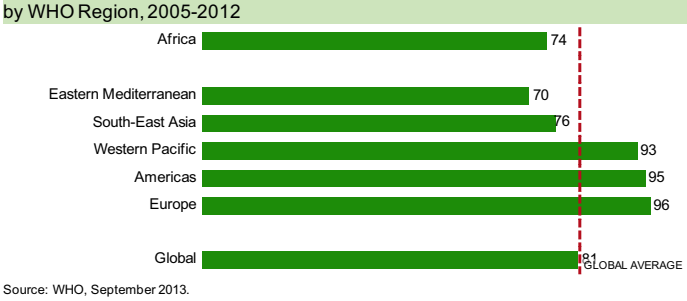
Figure 4.6.13: Percentage of Antenatal care coverage - at least four visits (ANC4) in the African Region, 2005-2012



Regional countries without data are not included in the chart.

Source: WHO, September 2013.

Figure 4.6.14: Percentage of Antenatal care coverage - at least one visit (ANC1) by WHO Region, 2005-2012

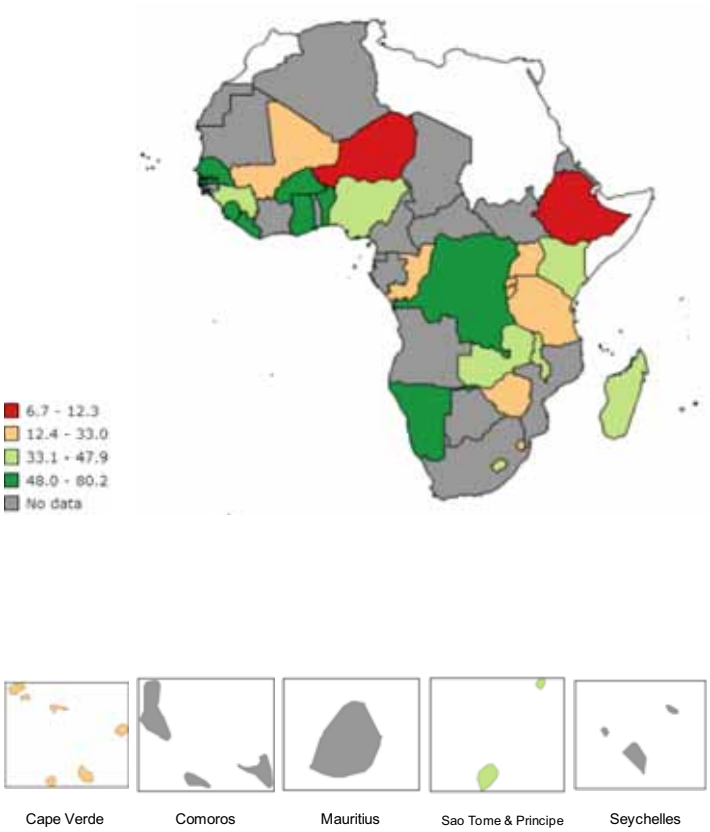


Source: WHO, September 2013.

Figure 4.6.15: Percentage of Antenatal care coverage - at least four visits (ANC4) by WHO Region, 2005-2012

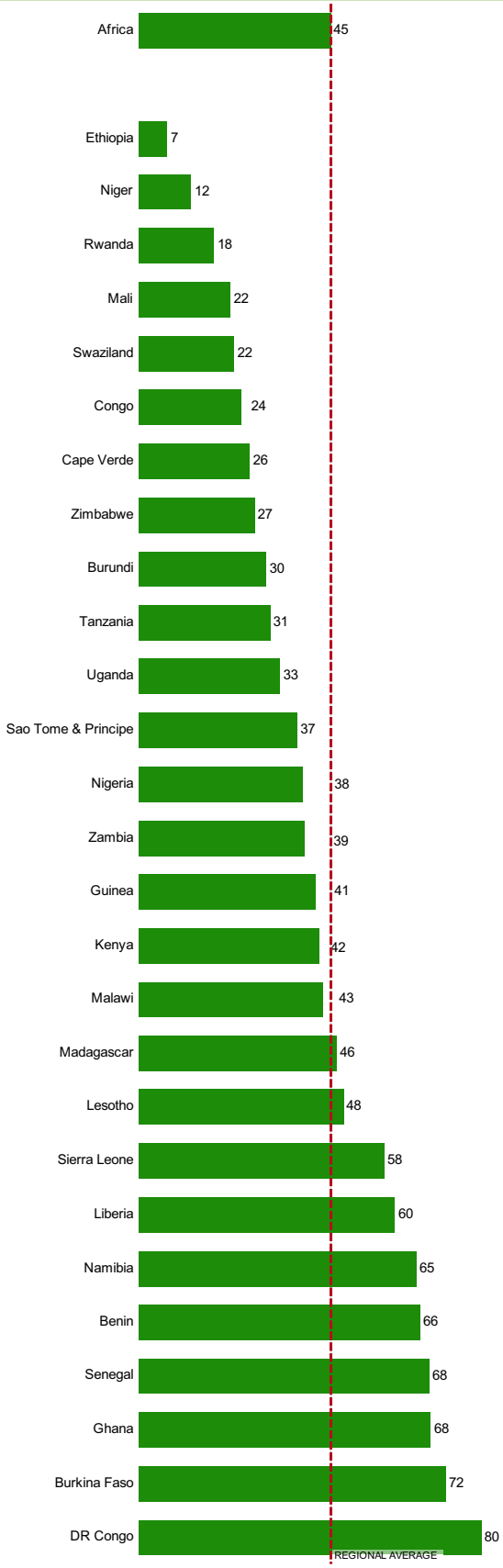
Source: WHO, September 2013.

Figure 4.6.16: Percentage of postnatal care visit within two days of birth in the African Region in 2011



Source: WHO, September 2013.

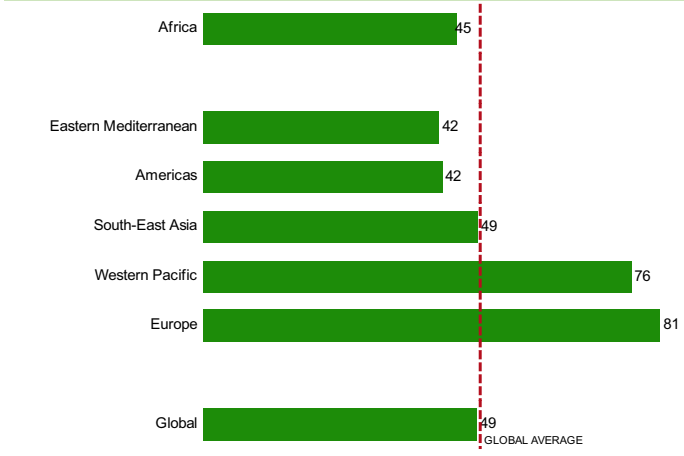
Figure 4.6.17: Percentage of postnatal care visit within two days of birth in the African Region, 2005-2011



Regional countries without data are not included in the chart.

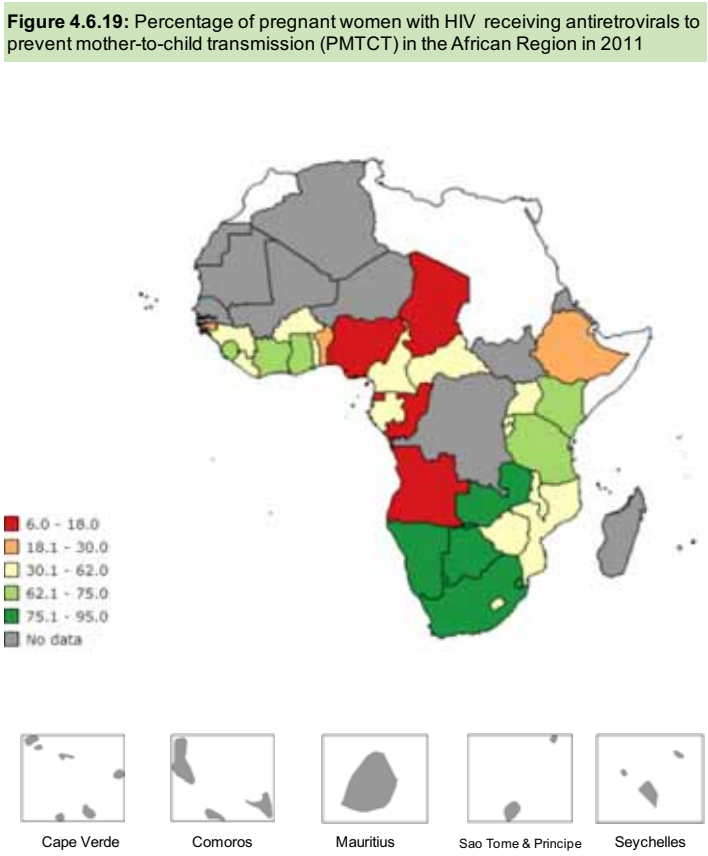
Source: WHO, September 2013.

Figure 4.6.18: Percentage of postnatal care visit within two days of child-birth by WHO Region, 2005-2011



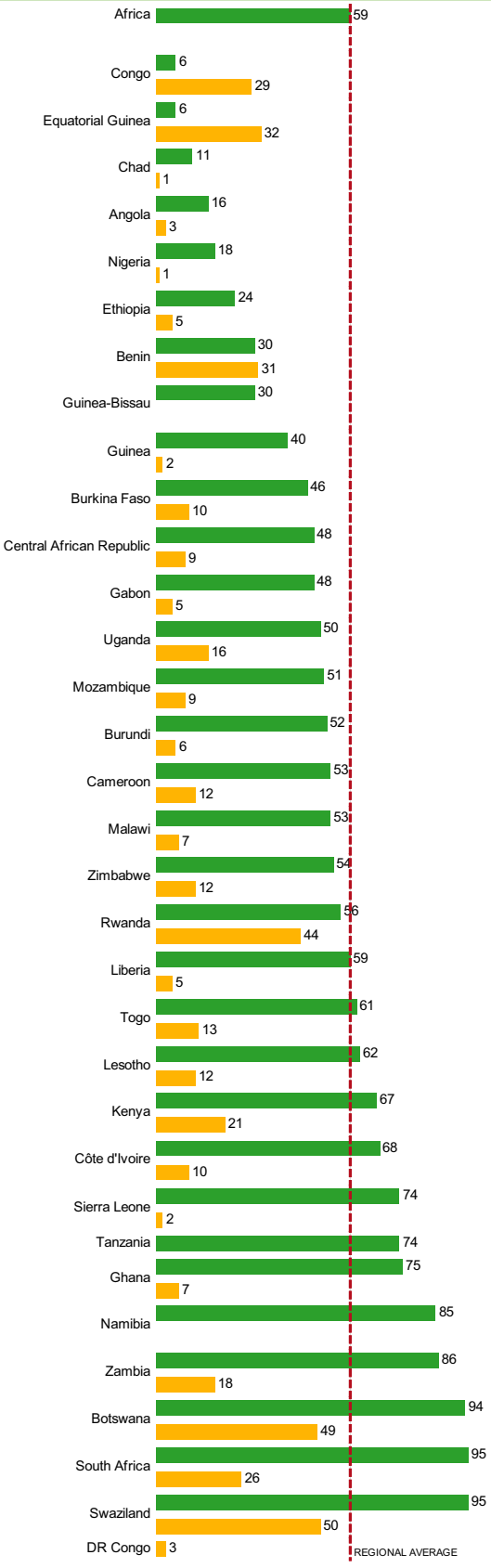
Source: WHO, September 2013.

Figure 4.6.19: Percentage of pregnant women with HIV receiving antiretrovirals to prevent mother-to-child transmission (PMTCT) in the African Region in 2011



Source: WHO, September 2013.

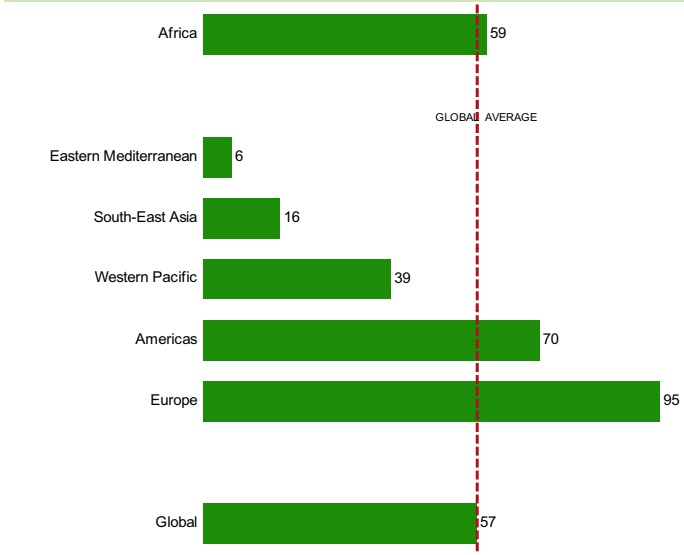
Figure 4.6.20: Percentage of pregnant women with HIV receiving antiretrovirals to prevent mother-to-child transmission (PMTCT) in the African Region, 2005 and 2011



Regional countries without data are not included in the chart.

Source: WHO, September 2013.

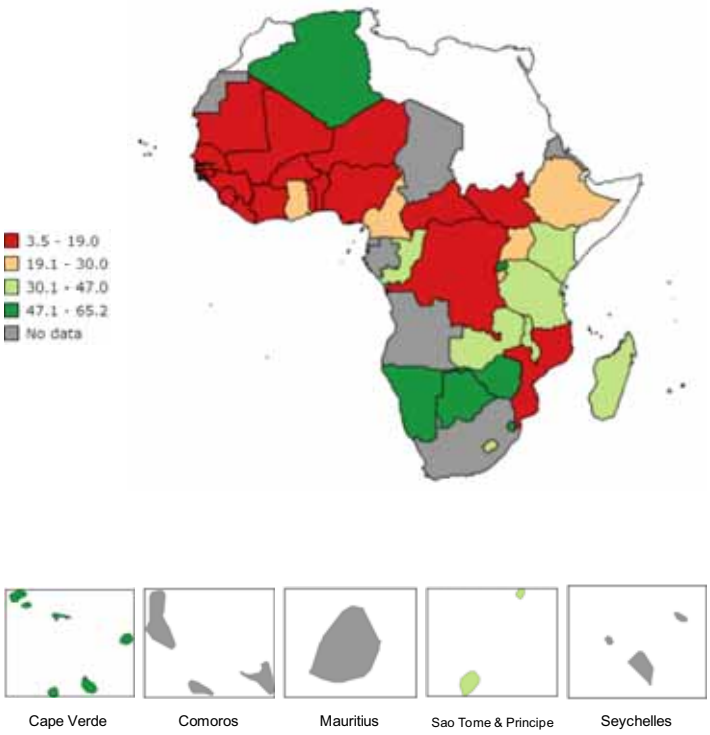
Figure 4.6.21: Percentage of pregnant women with HIV receiving antiretrovirals to prevent mother- to- child transmission (PMTCT) by WHO Region in 2011



Source: WHO, September 2013.

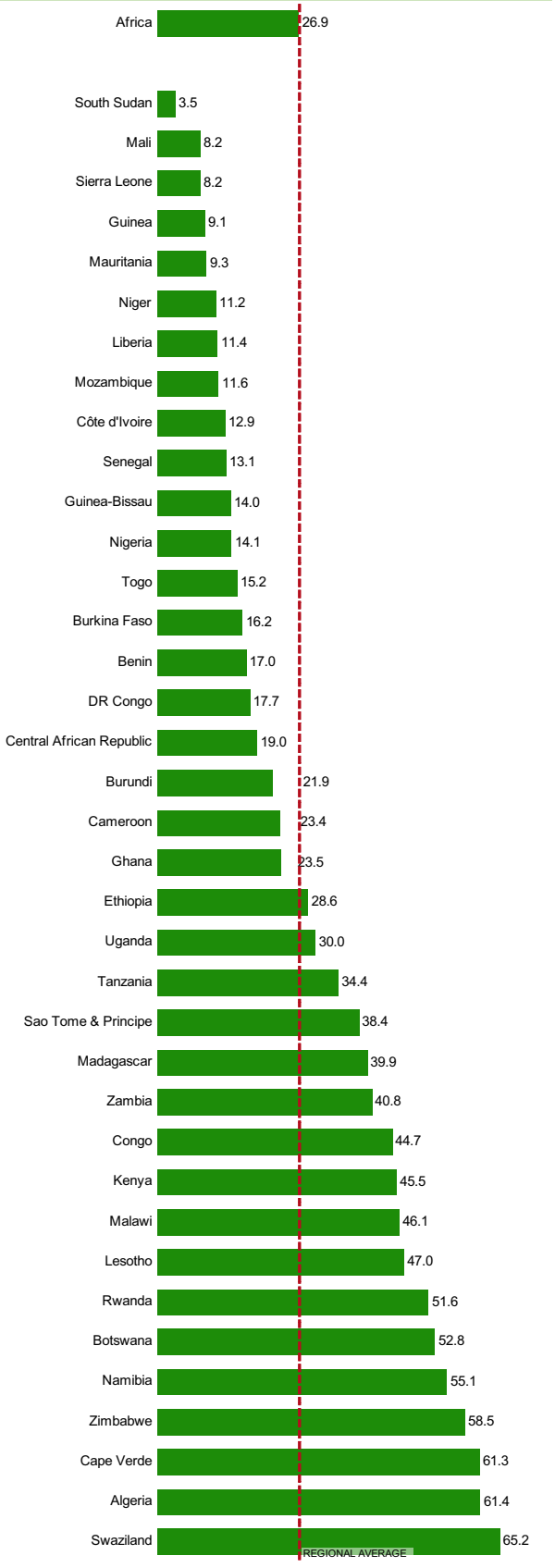
4.7 Gender and women's health

Figure 4.7.1: Contraceptive prevalence rate (in % of women ages 15-49) in the African Region in 2012



Source: WHO, September 2013.

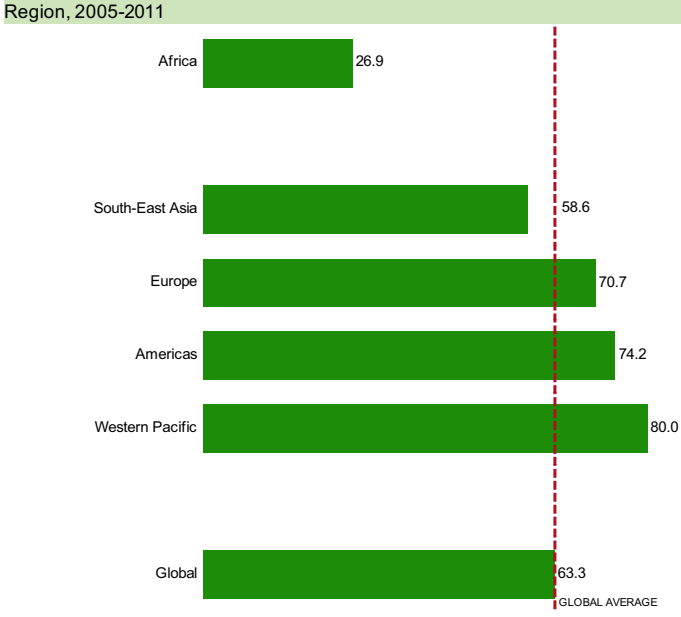
Figure 4.7.2: Contraceptive prevalence rate (in % of women ages 15-49) in the African Region, 2005-2012



Regional countries without data are not included in the chart.

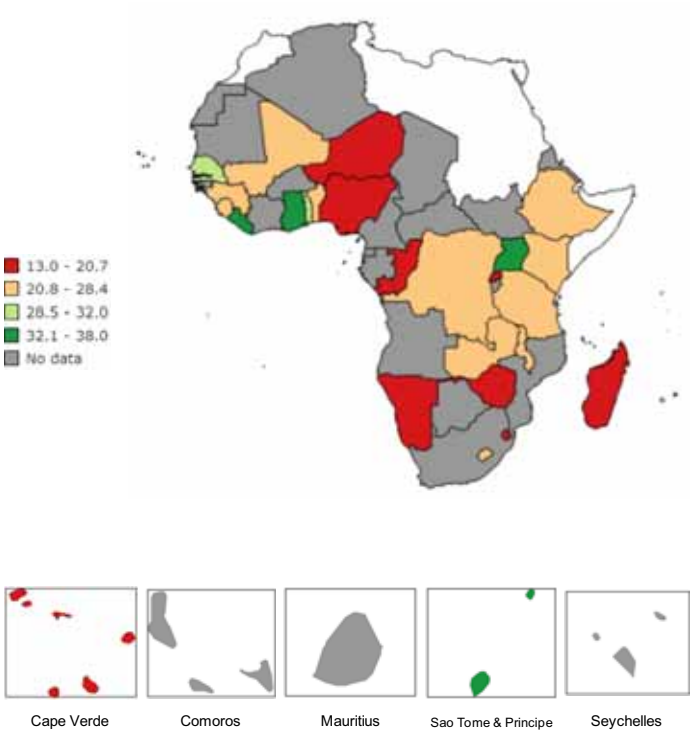
Source: WHO, September 2013.

Figure 4.7.3: Contraceptive prevalence rate (in % of women ages 15-49) by WHO Region, 2005-2011



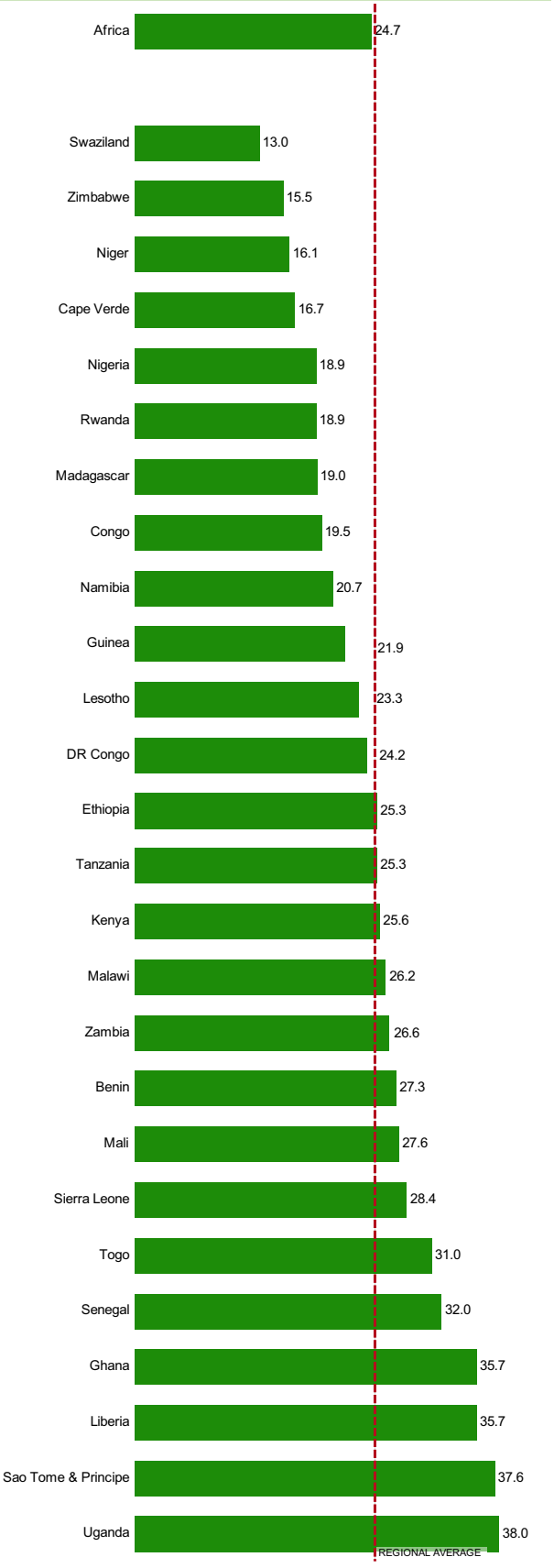
Source: WHO, September 2013.

Figure 4.7.4: Percentage of unmet need for family planning (married women ages 15-49) in the African Region in 2012



Source: WHO, October 2013.

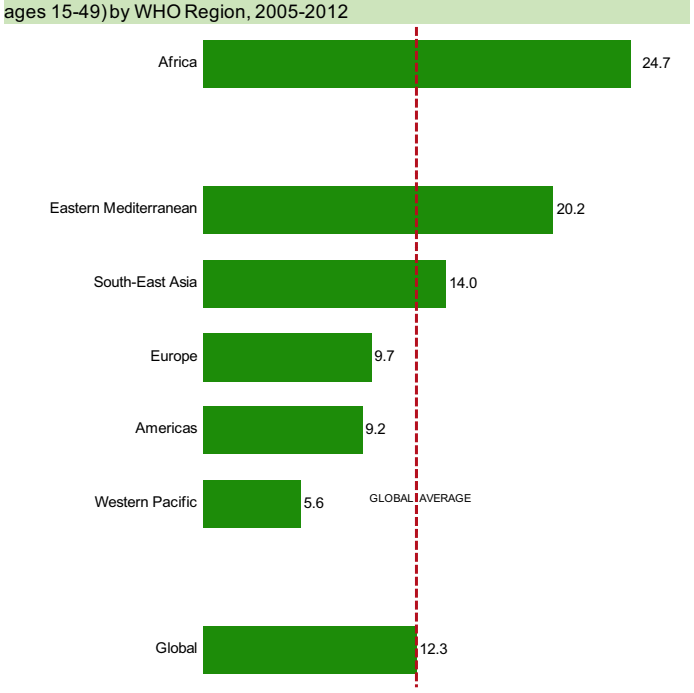
Figure 4.7.5: Percentage of unmet need for family planning (married women ages 15-49) in the African Region, 2005-2012



Regional countries without data are not included in the chart.

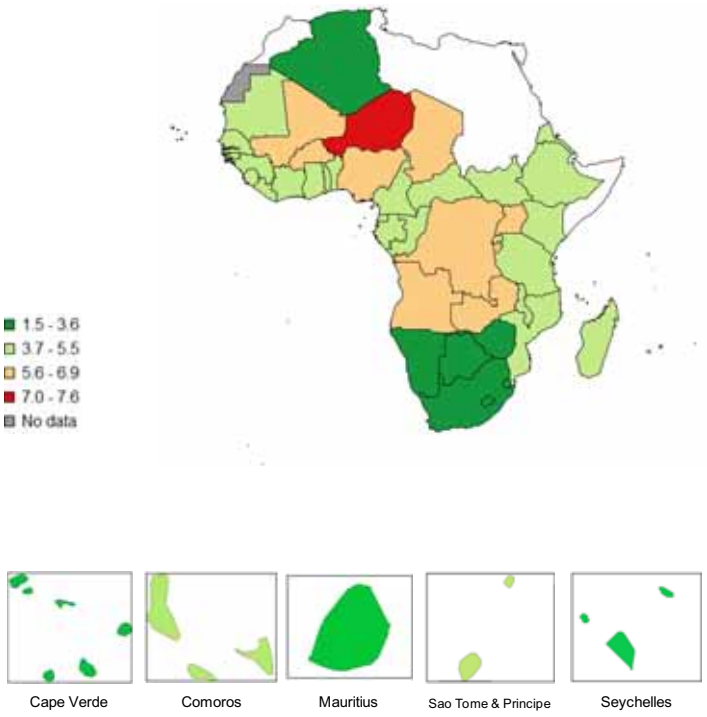
Source: WHO, October 2013.

Figure 4.7.6: Percentage of unmet need for family planning (married women ages 15-49) by WHO Region, 2005-2012



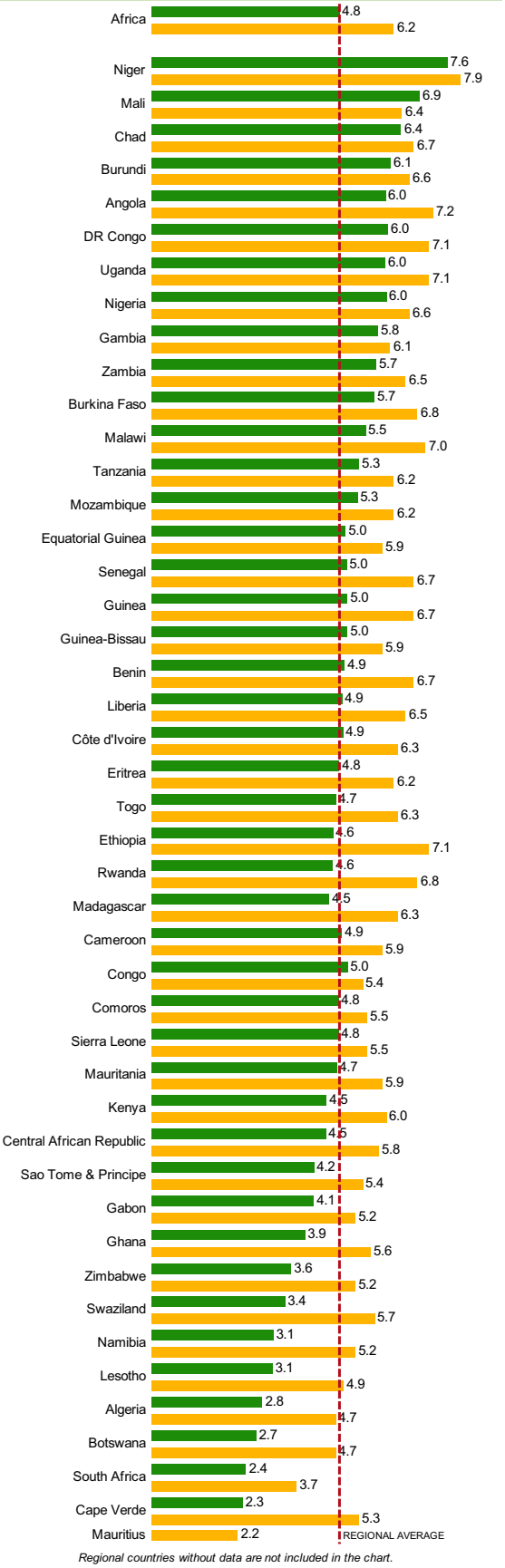
Source: WHO, October 2013.

Figure 4.7.7: Total fertility rate (per woman) in the African Region in 2009



Source: WHO, September 2013.

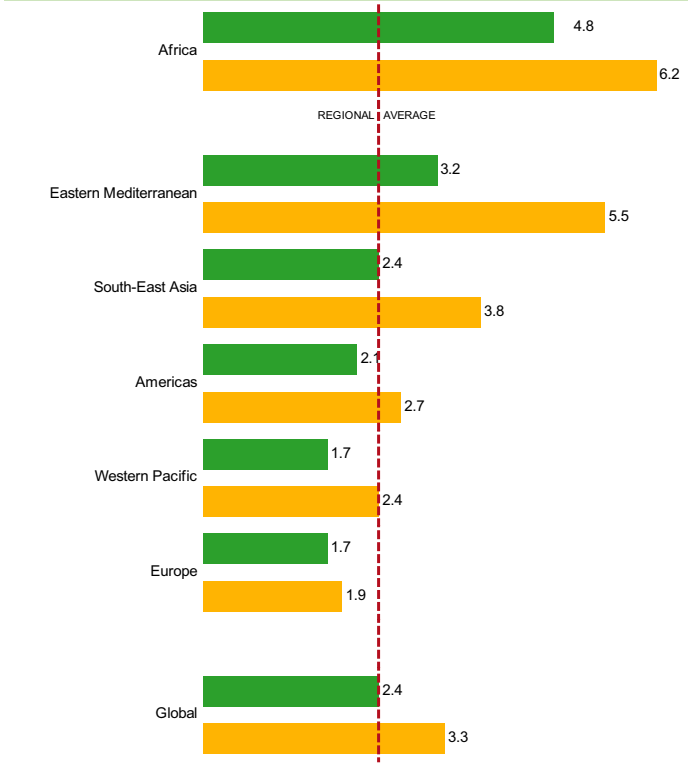
Figure 4.7.8: Total fertility rate (per woman) in the African Region, 1990 and 2012



Regional countries without data are not included in the chart.

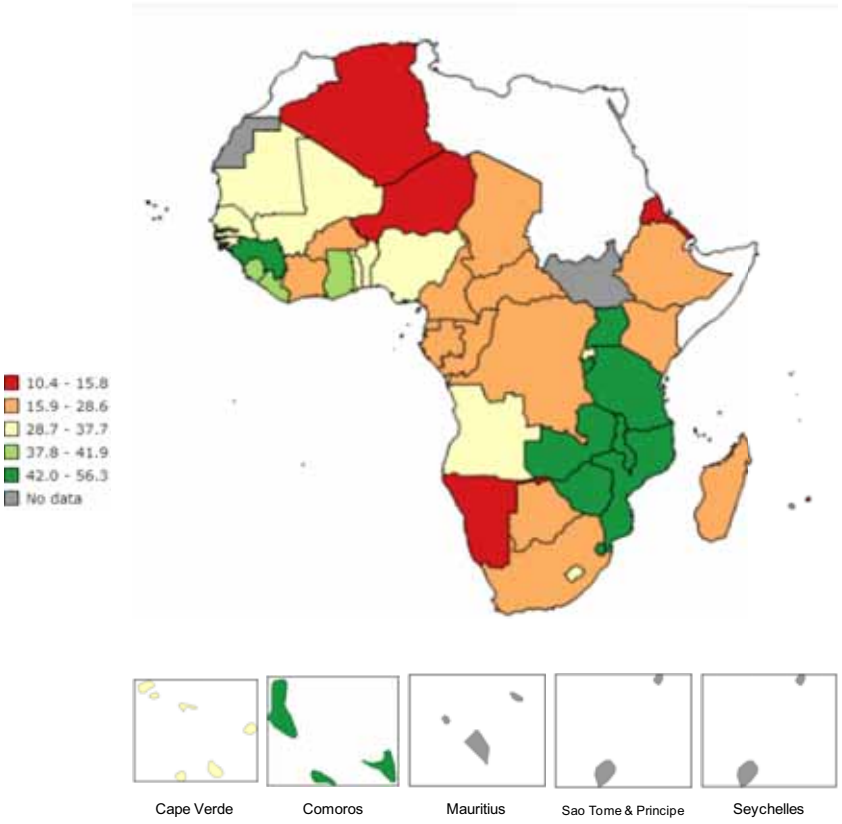
Source: WHO, September 2013.

Figure 4.7.9: Total fertility rate (per woman) by WHO Region, 1990 and 2011



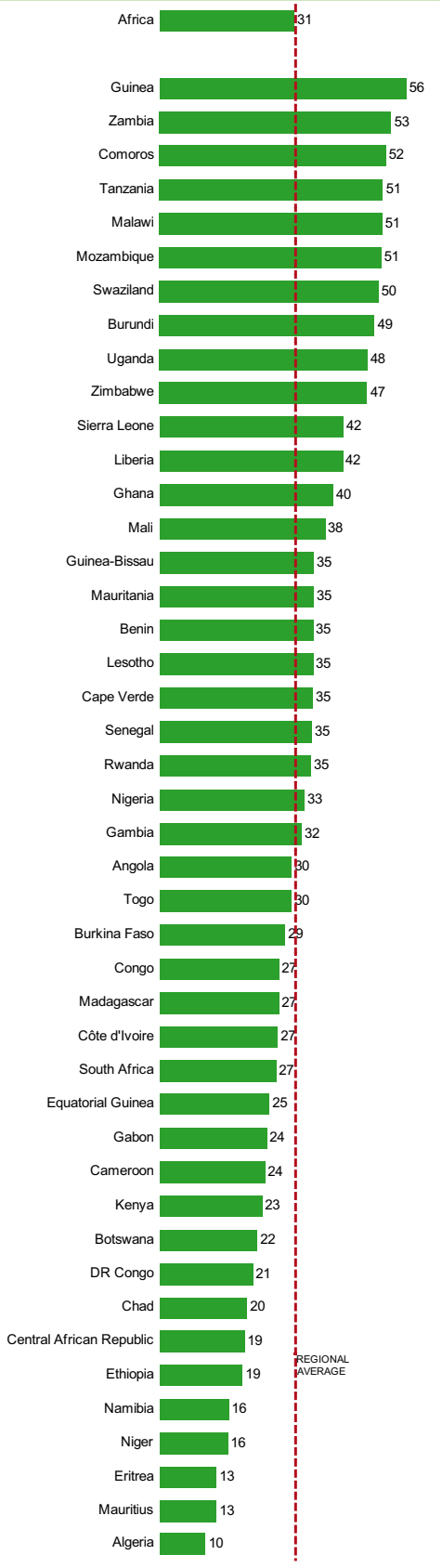
Source: WHO, September 2013.

Figure 4.7.10: Age standardized incidence rate of cervical cancer (per 100 000 population) in the African Region in 2008



Source: GLOBOCAN 2008, International Agency for Research on Cancer (IARC).

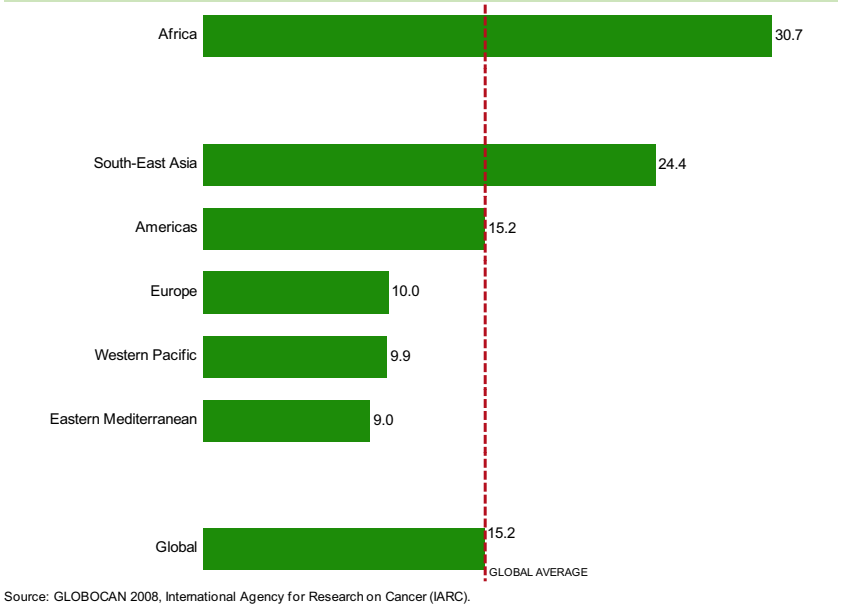
Figure 4.7.11: Age standardized incidence rate of cervical cancer (per 100 000 population) in the African Region, 2008



Regional countries without data are not included in the chart.

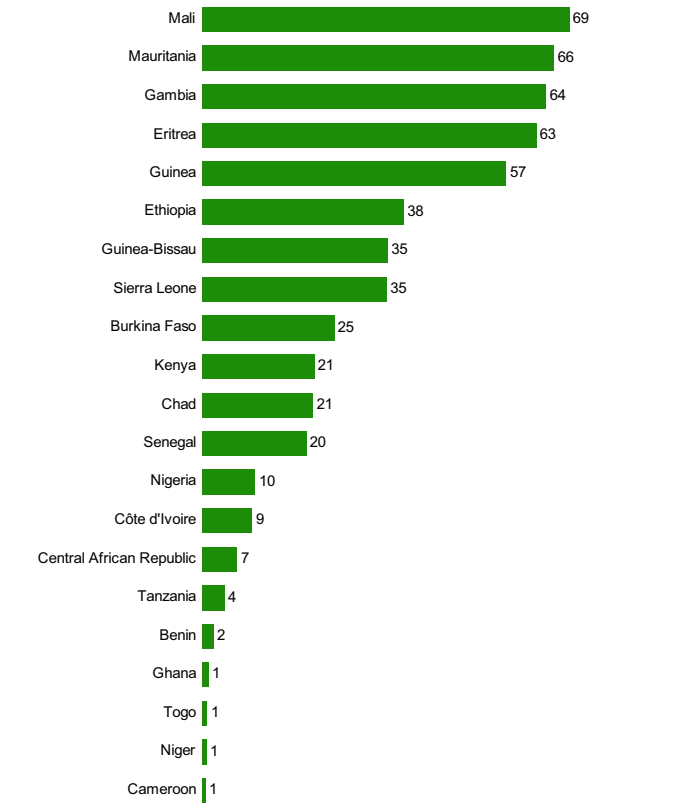
Source: GLOBOCAN 2008, International Agency for Research on Cancer (IARC).

Figure 4.7.12: Age standardized incidence rate of cervical cancer (per 100 000 population) by WHO Region, 2008



Source: GLOBOCAN 2008, International Agency for Research on Cancer (IARC).

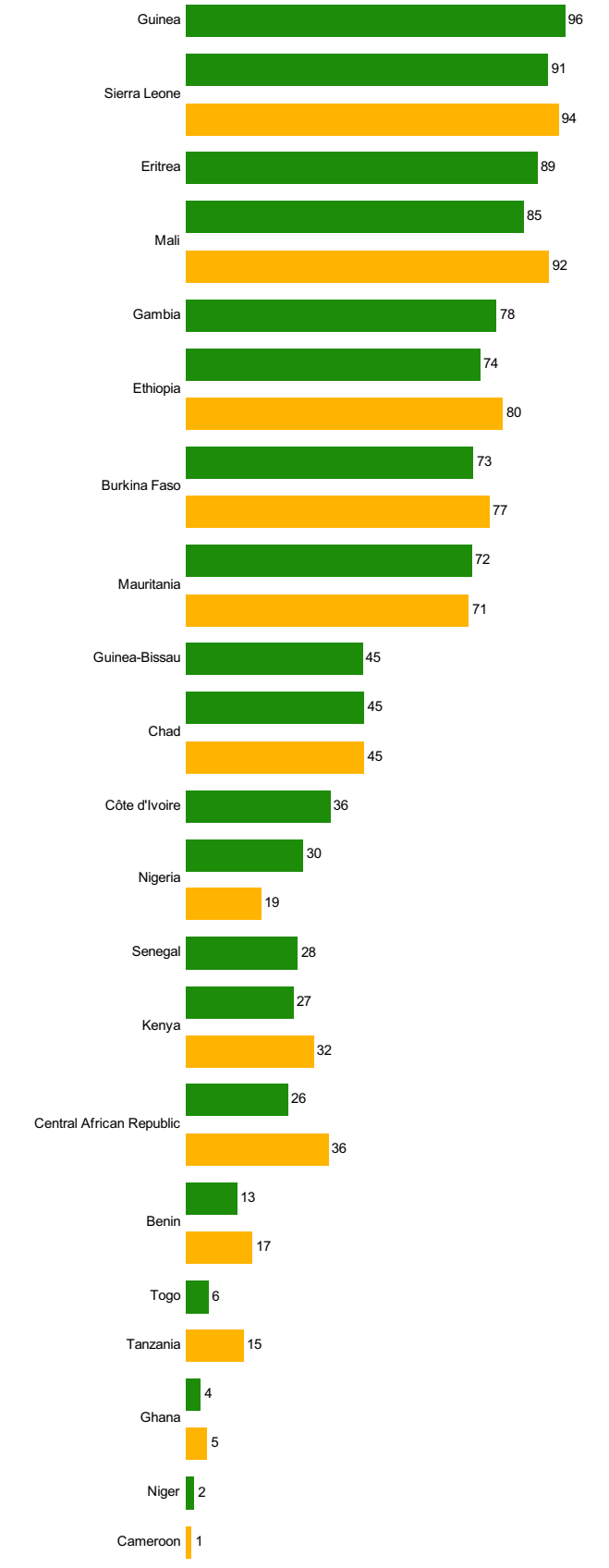
Figure 4.7.13: Prevalence of female genital mutilation among daughters (% of women aged 15-49 with at least one daughter circumcised) in the African Region, 1999



Regional countries without data are not included in the chart.

Source: WHO 2012

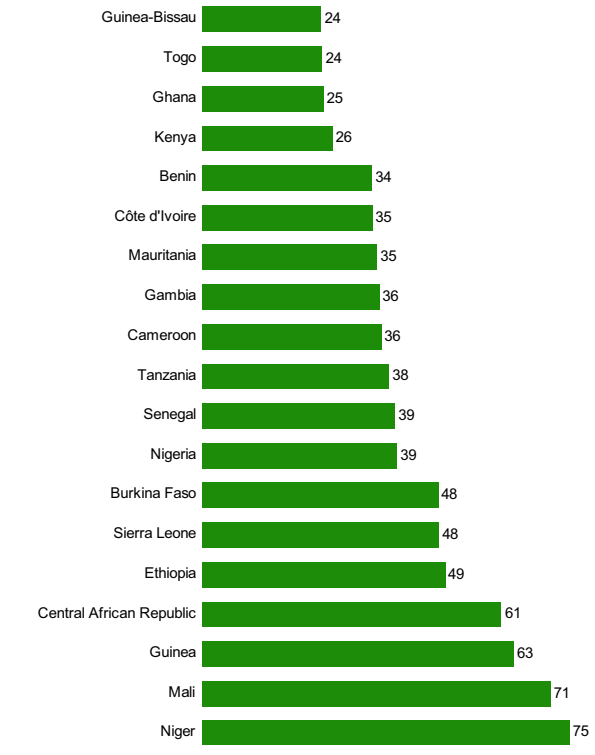
Figure 4.7.14: Prevalence of female genital mutilation among women aged 15-49 who have been cut, African Region, 2004 and 2009



Regional countries without data are not included in the chart.

Source: WHO 2012

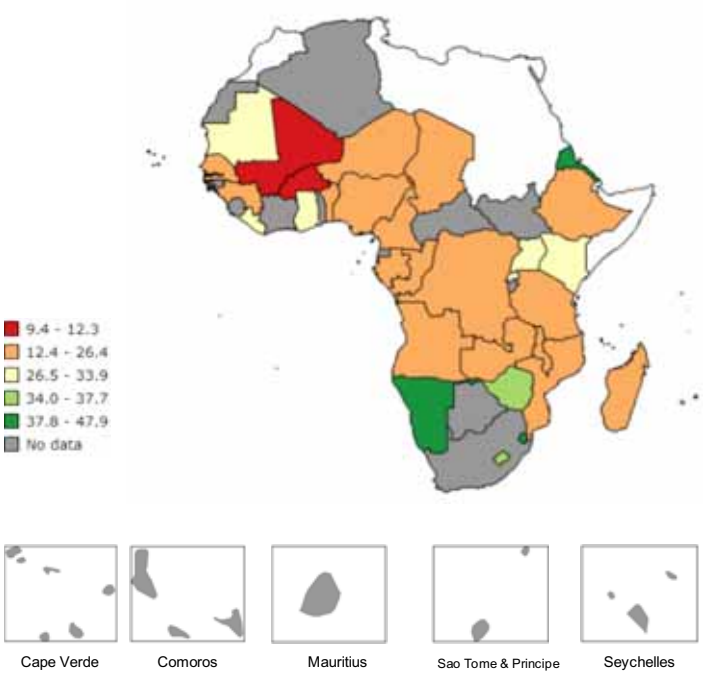
Figure 4.7.15: Percentage of women aged 20-24 that were married before the age of 18 in the African Region, 2004



Regional countries without data are not included in the chart.

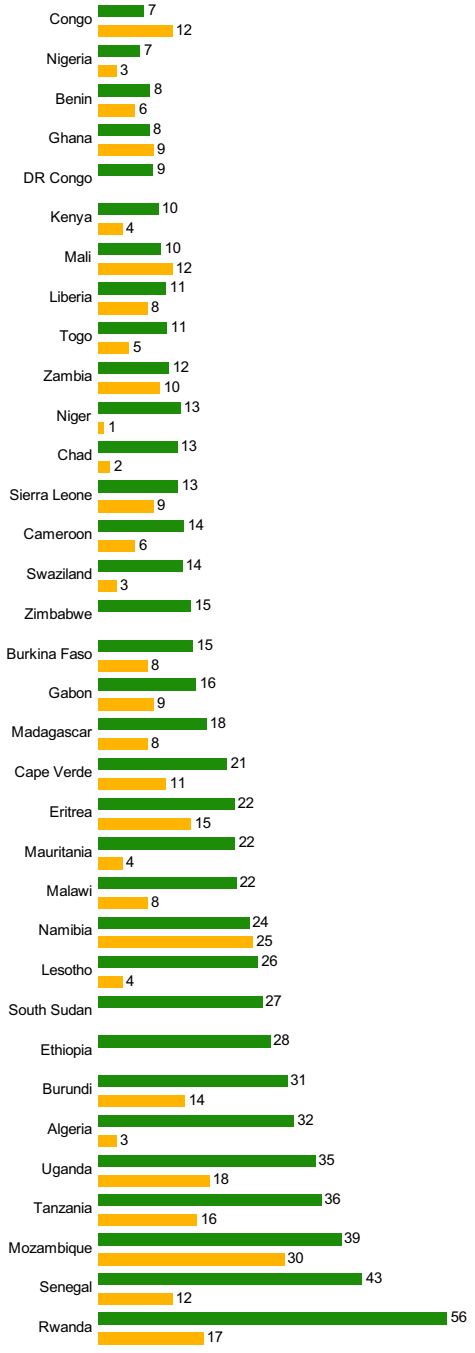
Source: WHO 2012

Figure 4.7.16: Percentage of households with a female head in the African Region in 2008



Source: UNSD, July 2013.

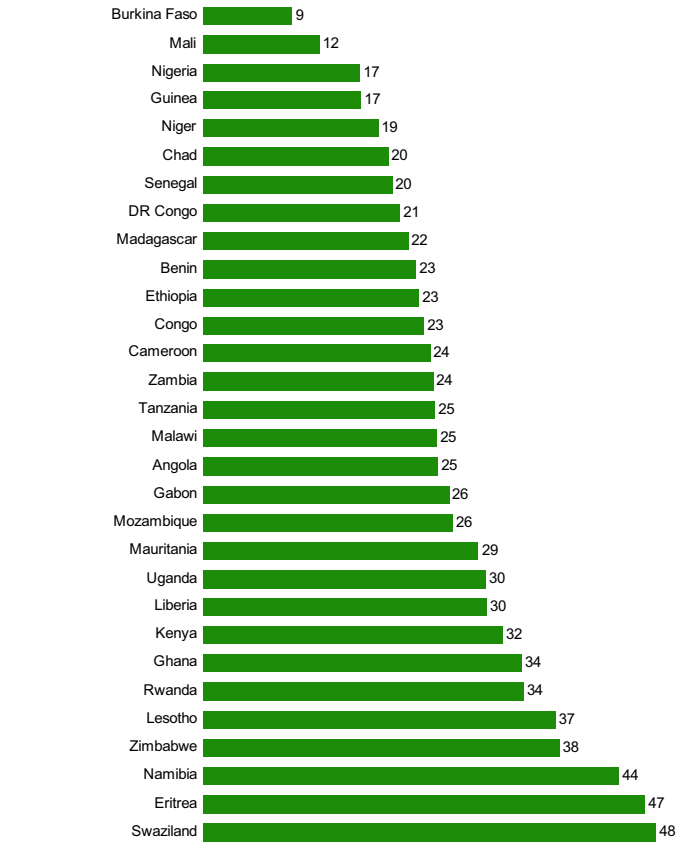
Figure 4.7.17: Percentage of parliamentary seats in single or lower chamber occupied by women in the African Region, 2000 and 2012



Regional countries without data are not included in the chart.

Source: UNSD, July 2013.

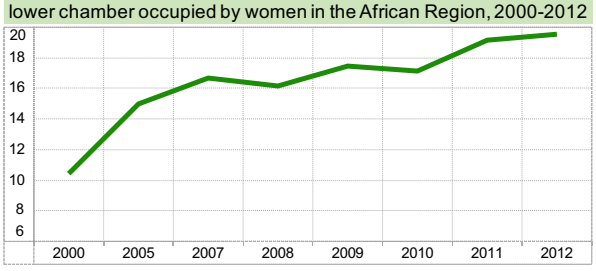
Figure 4.7.18: Percentage of households with a female head in the African Region, 2001-2008



Regional countries without data are not included in the chart.

Source: UNSD, July 2013.

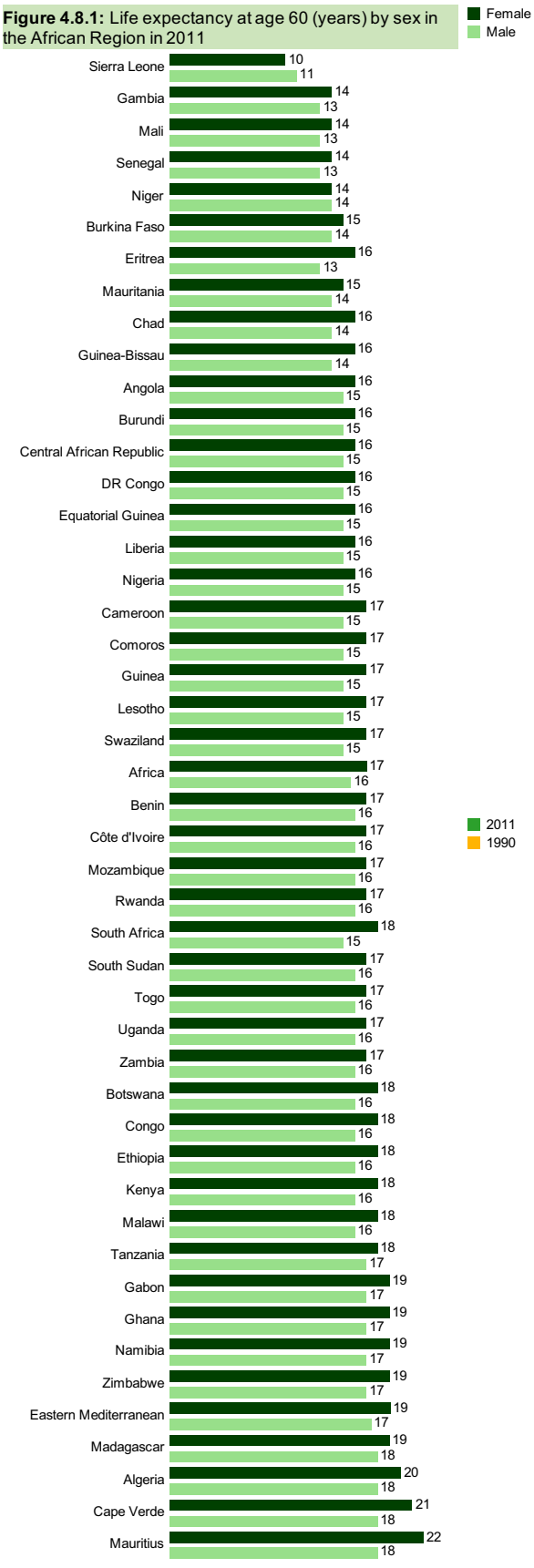
Figure 4.7.19: Trend in percentage of parliamentary seats in single or lower chamber occupied by women in the African Region, 2000-2012



Source: UNSD, July 2013.

4.8 Ageing

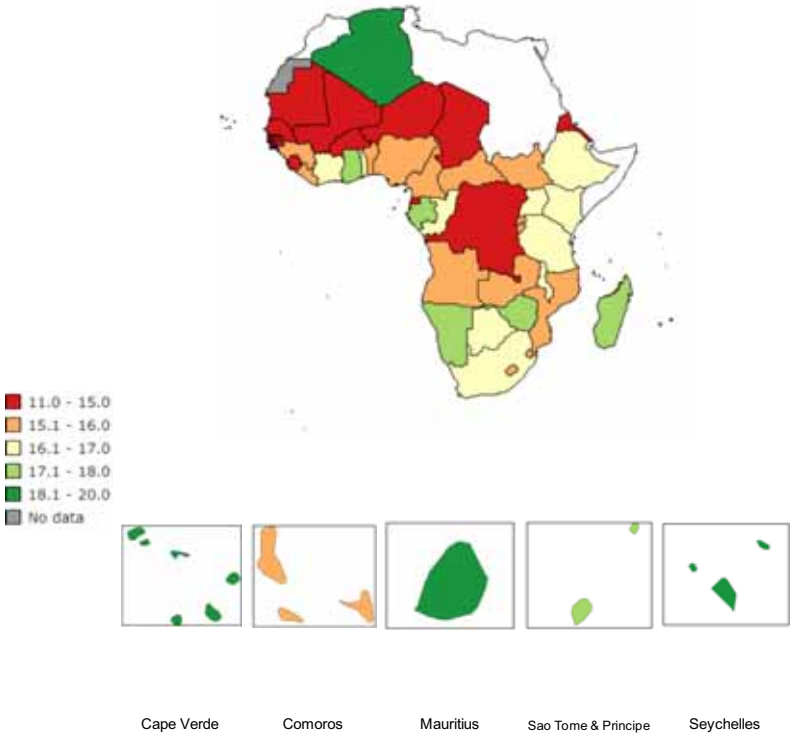
Figure 4.8.1: Life expectancy at age 60 (years) by sex in the African Region in 2011



Regional countries without data are not included in the chart.

Source: WHO, September 2013.

Figure 4.8.2: Life expectancy at age 60 (years) by sex in the African Region in 2011

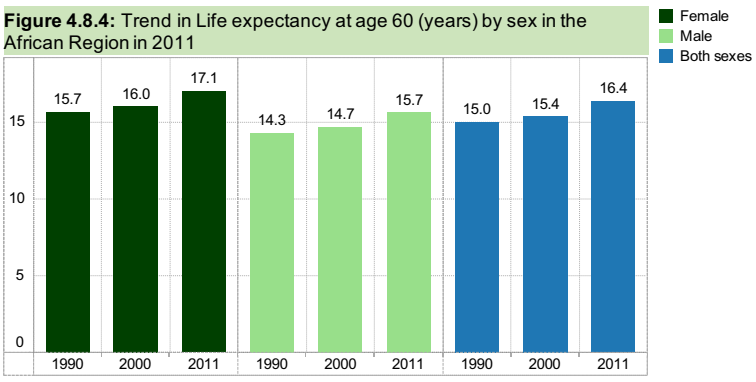


Source: WHO, September 2013.

Figure 4.8.3: Life expectancy at age 60 (years) by WHO Region, 2000 and 2011

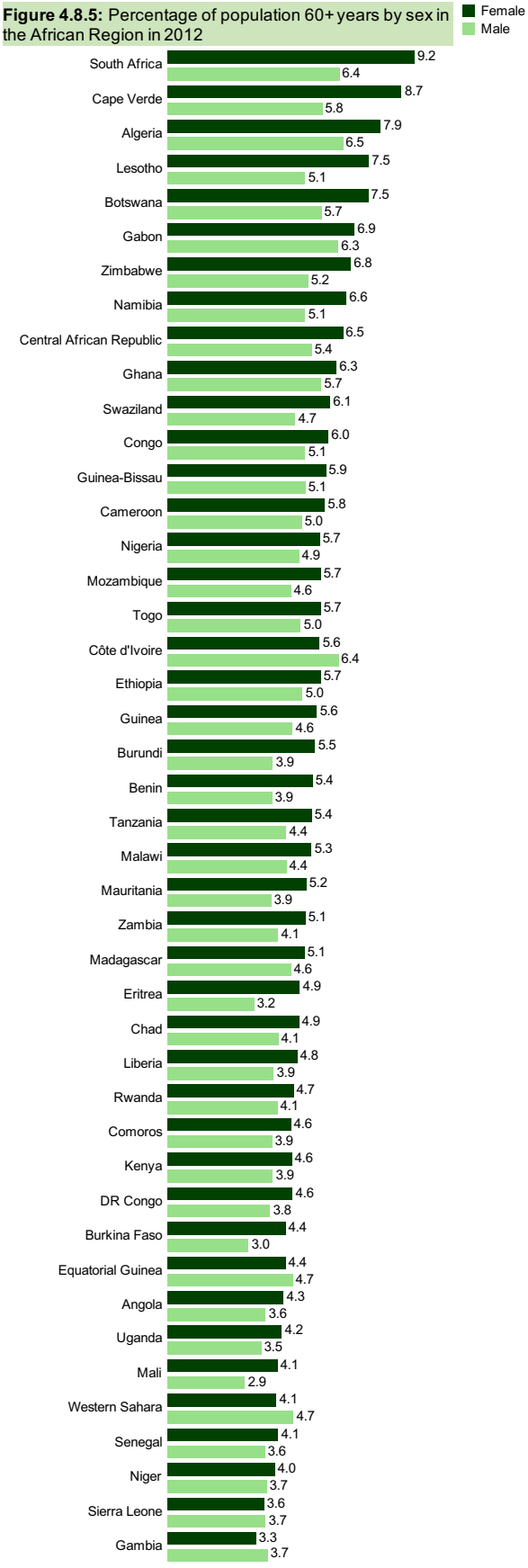
Source: WHO, September 2013.

Figure 4.8.4: Trend in Life expectancy at age 60 (years) by sex in the African Region in 2011



Source: WHO, September 2013.

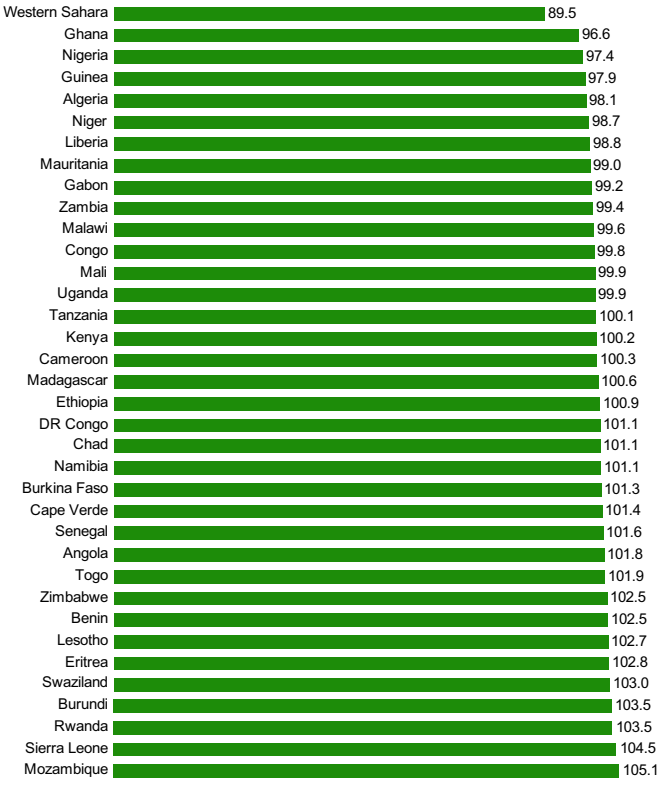
Figure 4.8.5: Percentage of population 60+ years by sex in the African Region in 2012



Regional countries without data are not included in the chart.

Source: UN, DESA, Population Division (2011), World Population Prospects: The 2010 Revision.

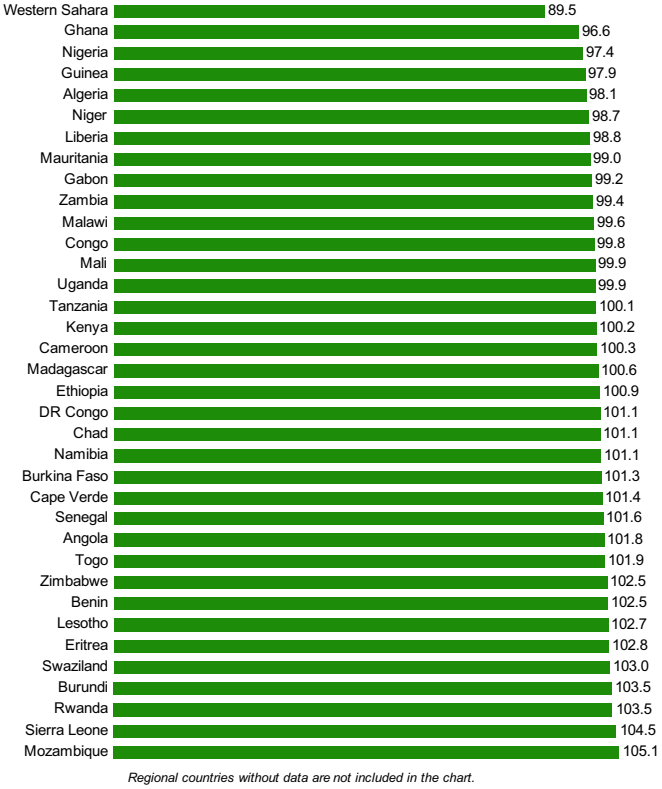
Figure 4.8.6: Sex ratio (Women/100 men) in the African Region, 2012



Regional countries without data are not included in the chart.

Source: United Nations Statistics Division, July 2013.

Figure 4.8.7: Sex ratio in 60+ age group (men/100 women) in the African Region, 2012



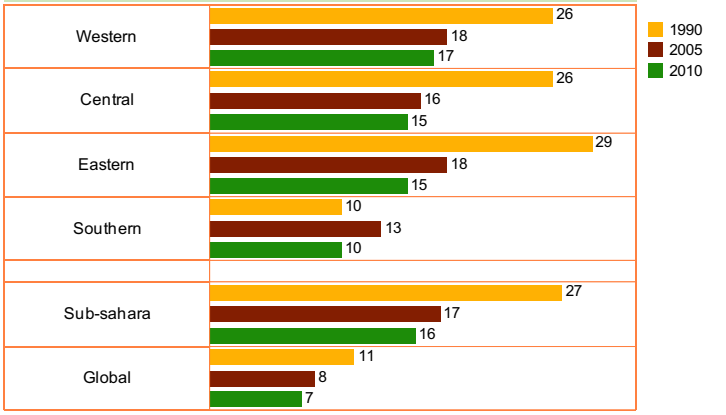
Regional countries without data are not included in the chart.

Source: UNSD, July 2013.

4.9 Epidemic and pandemic-prone diseases

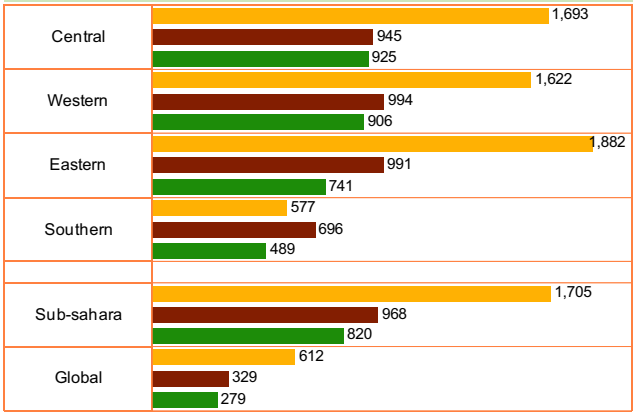
4.9.1 Influenza

Figure 4.9.1.1: Mortality rate due to influenza per 100 000 in 1990, 2005 and 2010, By sub-Saharan region



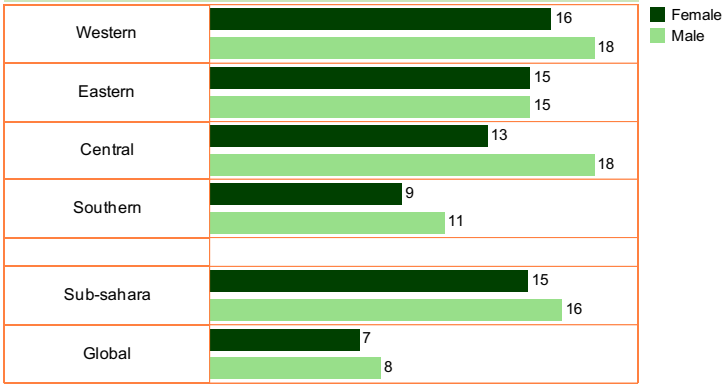
Source: IHME, May 2013

Figure 4.9.1.2: Disability Adjusted Life Years (DALY) rate due to influenza per 100 000 in 1990, 2005 and 2010, by sub-Saharan region



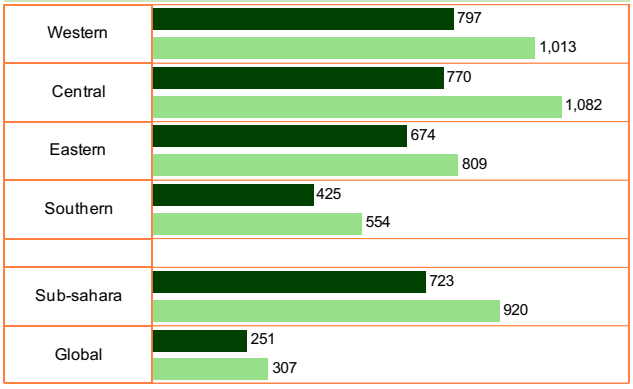
Source: IHME, May 2013

Figure 4.9.1.3: Mortality rate due to influenza per 100 000 in 2010, by sub-Saharan region and by sex



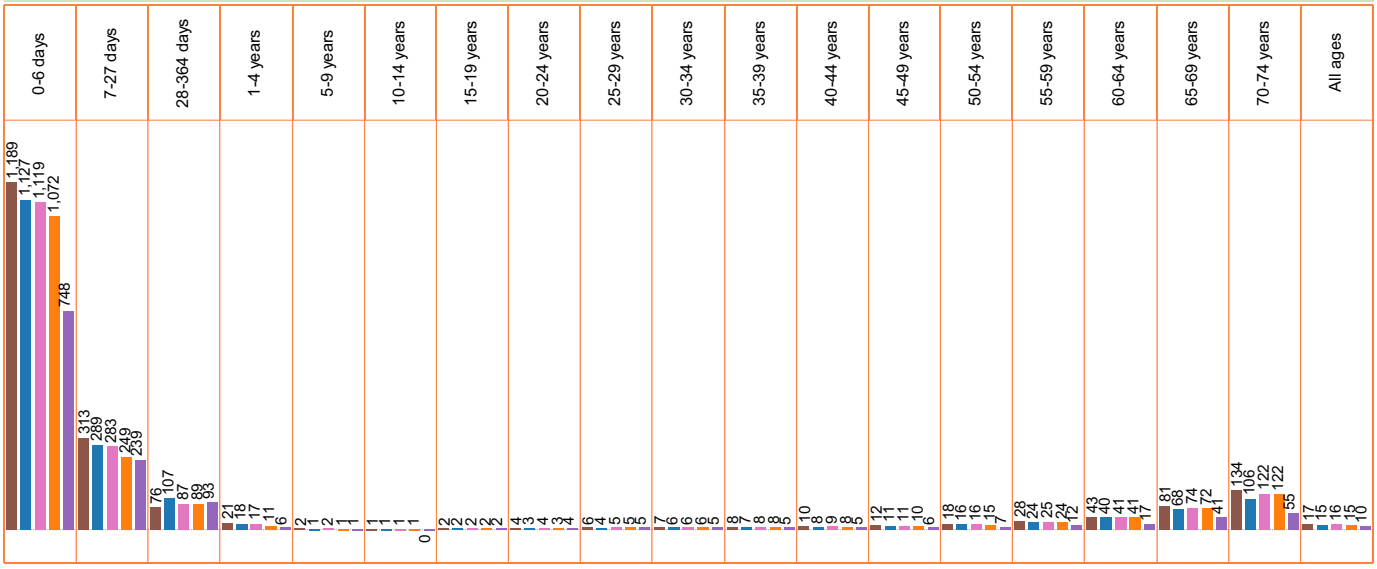
Source: IHME, May 2013

Figure 4.9.1.4: Disability Adjusted Life Years (DALY) due to influenza per 100 000 in 2010, by sub-Saharan region and by sex



Source: IHME, May 2013

Figure 4.9.1.5: Mortality rate due to influenza per 100 000 in 2010, by age and by sub-Saharan region

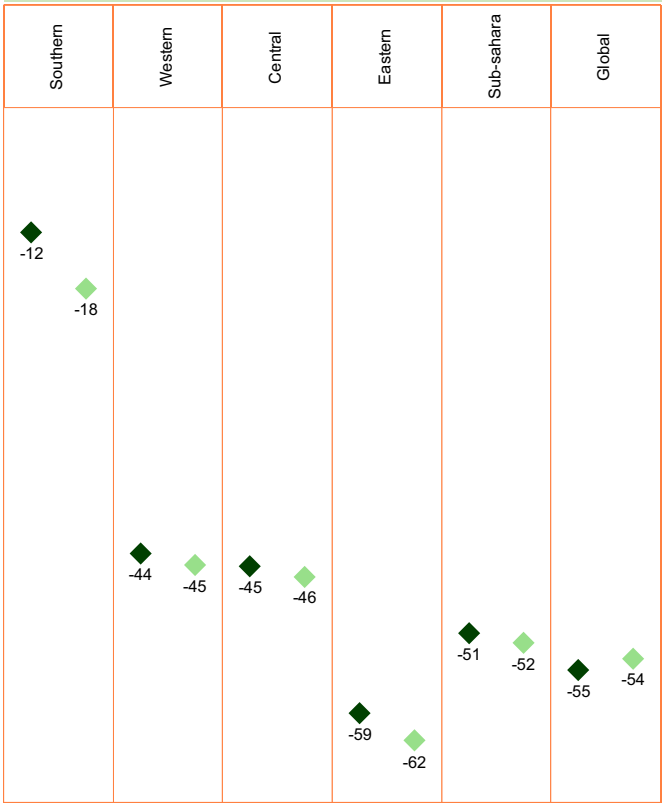


Source: IHME, May 2013

Figure 4.9.1.6: Percentage change in mortality rate due to influenza between 1990 and 2010, by sub-Saharan region and by sex

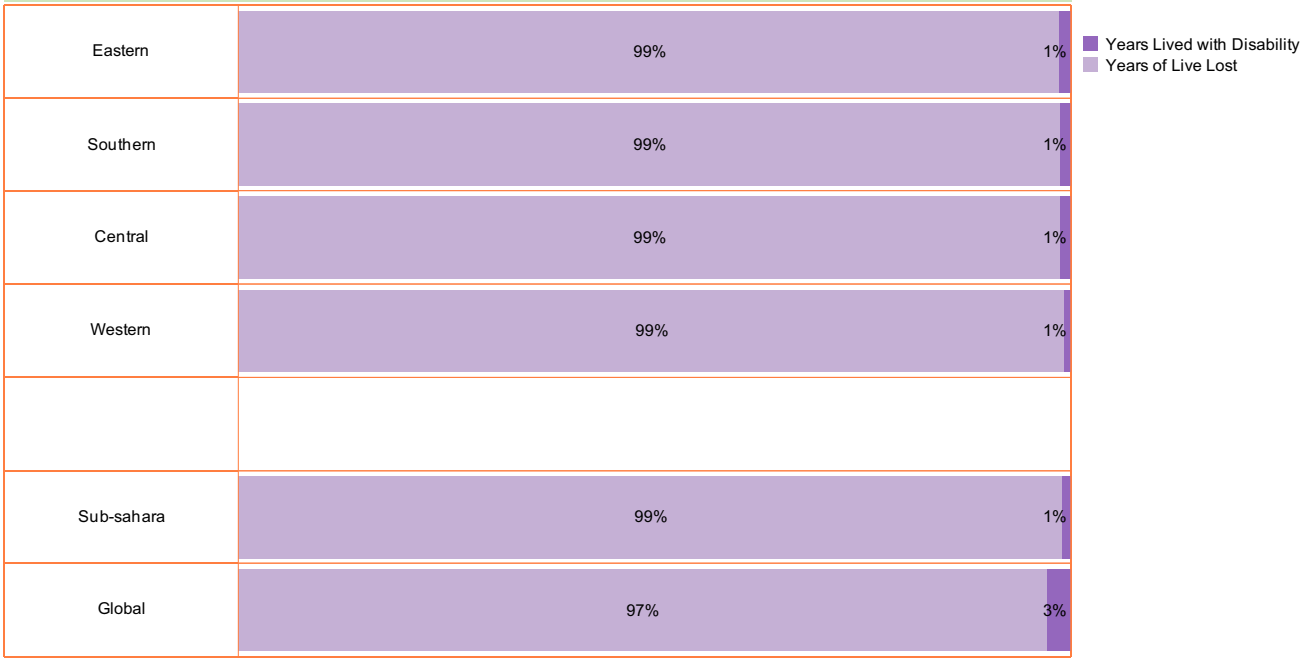
Source: IHME, May 2013

Figure 4.9.1.7: Percentage change in Disability Adjusted Life Years (DALY) rate due to influenza between 1990 and 2010, by sub-Saharan region and by sex



Source: IHME, May 2013

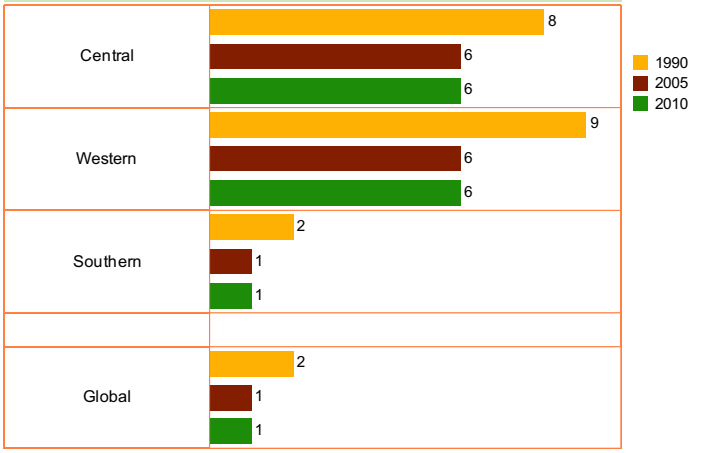
Figure 4.9.1.8: Percentage distribution of Disability Adjusted Life Years rate due to influenza by main components in 2010, by sub-Saharan region



Source: IHME, May 2013

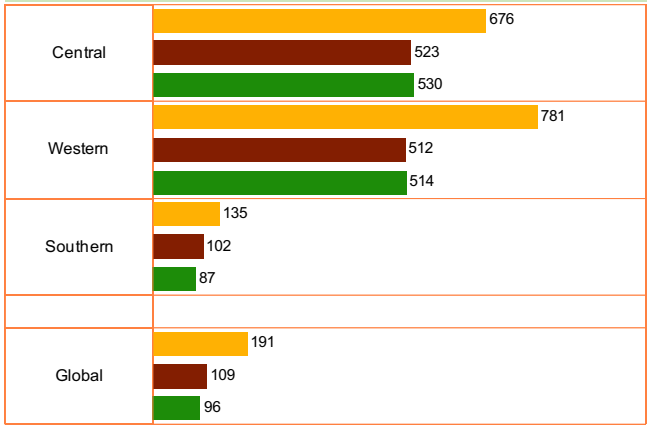
4.9.2 H influenzae type B meningitis

Figure 4.9.2.1: Mortality rate due to H influenzae type B meningitis per 100 000 in 1990, 2005 and 2010, by sub-Saharan region



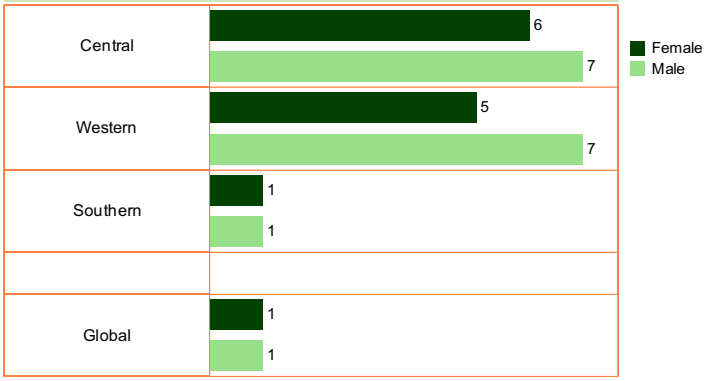
Source: IHME, May 2013

Figure 4.9.2.2: Disability Adjusted Life Years (DALY) rate due to H influenzae type B meningitis per 100 000 in 1990, 2005 and 2010, by sub-Saharan region



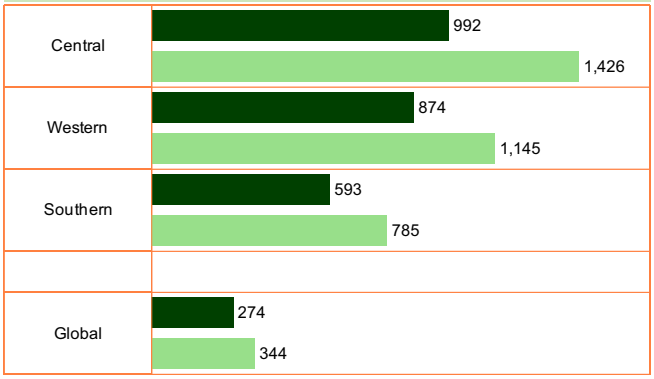
Source: IHME, May 2013

Figure 4.9.2.3: Mortality rate due to H influenzae type B meningitis per 100 000 in 2010, by sub-Saharan region and by sex



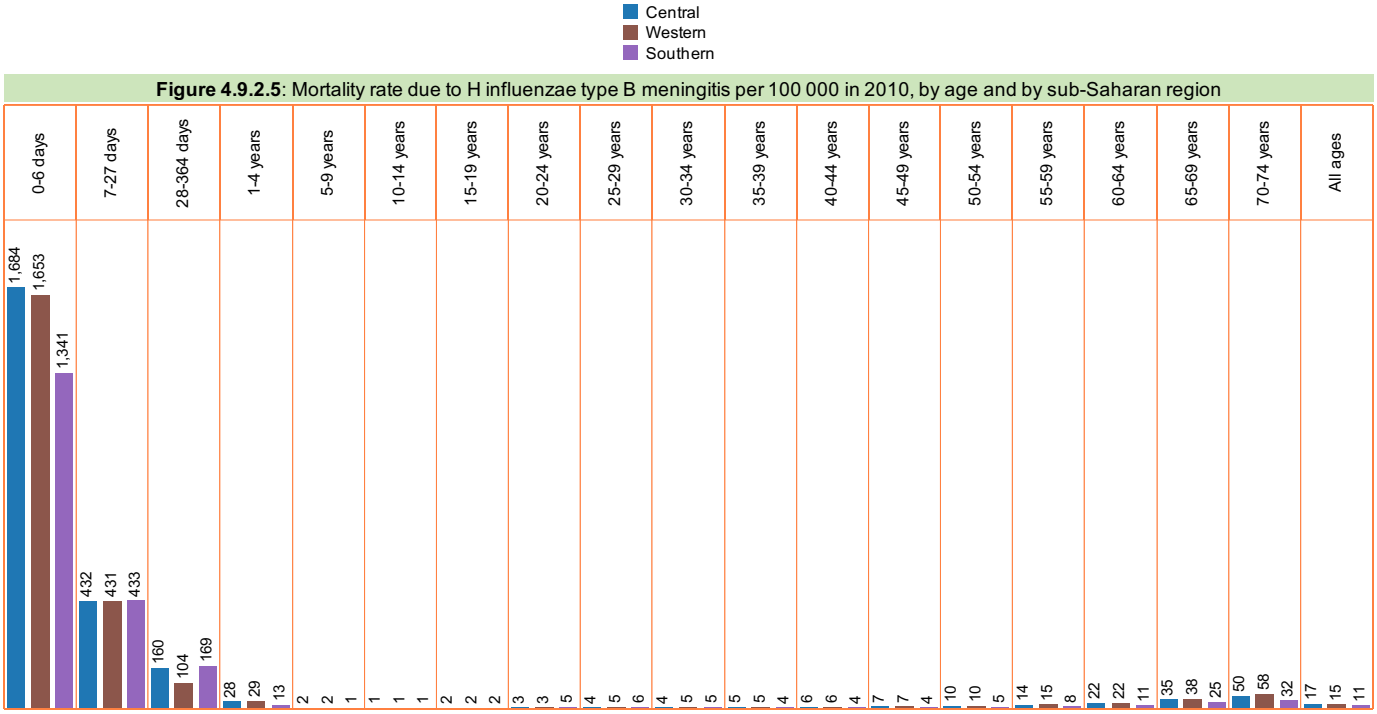
Source: IHME, May 2013

Figure 4.9.2.4: Disability Adjusted Life Years (DALY) due to H influenzae type B meningitis per 100 000 in 2010, by sub-Saharan region and by sex



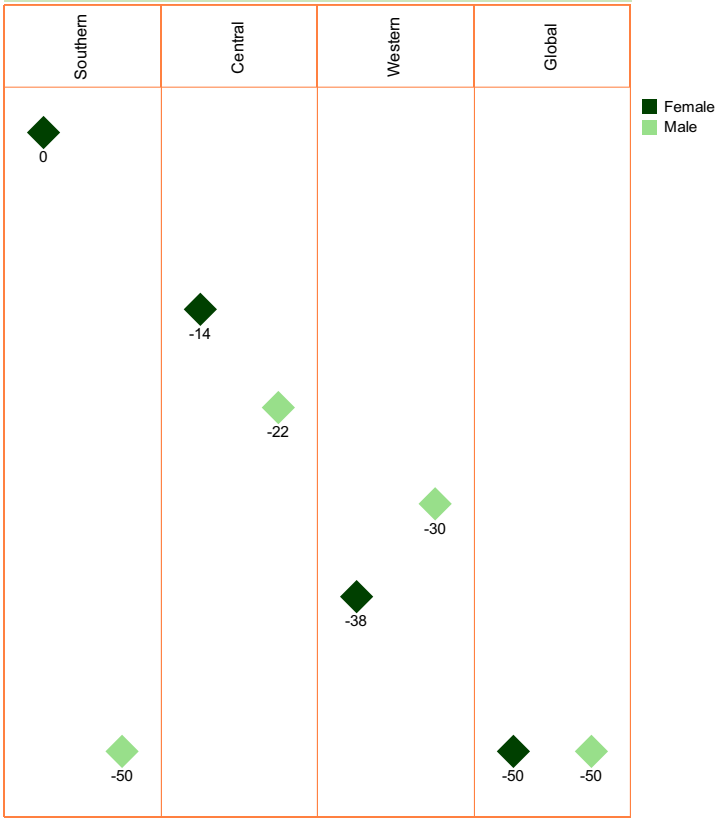
Source: IHME, May 2013

Figure 4.9.2.5: Mortality rate due to H influenzae type B meningitis per 100 000 in 2010, by age and by sub-Saharan region



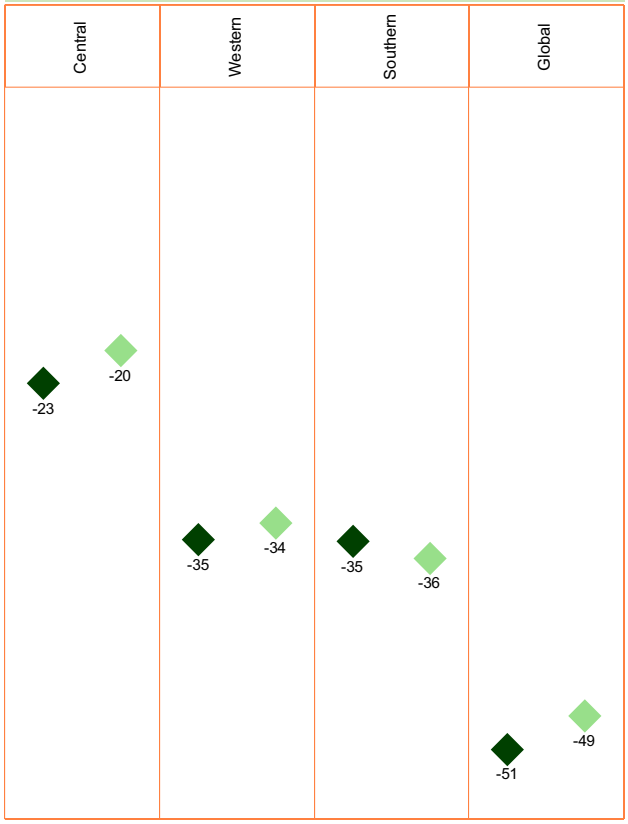
Source: IHME, May 2013

Figure 4.9.2.6: Percentage change in mortality rate due to H influenzae type B meningitis between 1990 and 2010, by sub-Saharan region and by sex



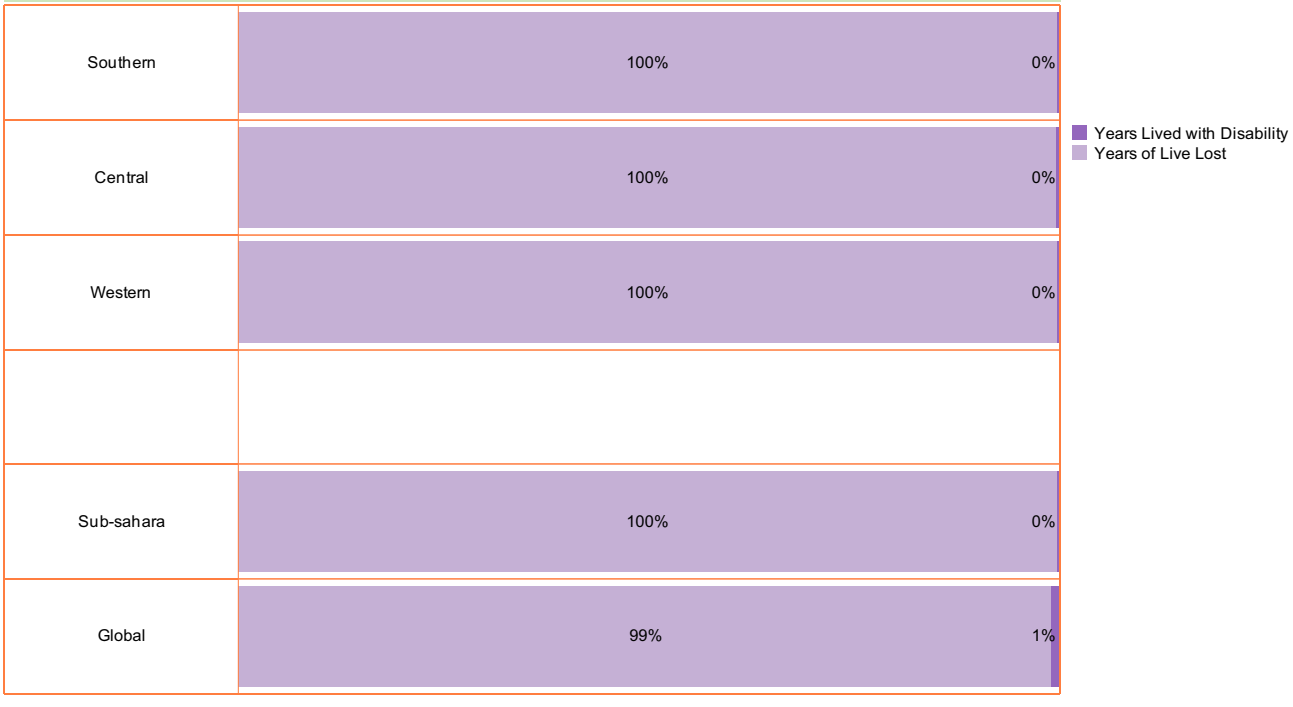
Source: IHME, May 2013

Figure 4.9.2.7: Percentage change in Disability Adjusted Life Years (DALY) rate due to H influenzae type B meningitis between 1990 and 2010, by sub-Saharan region and by sex



Source: IHME, May 2013

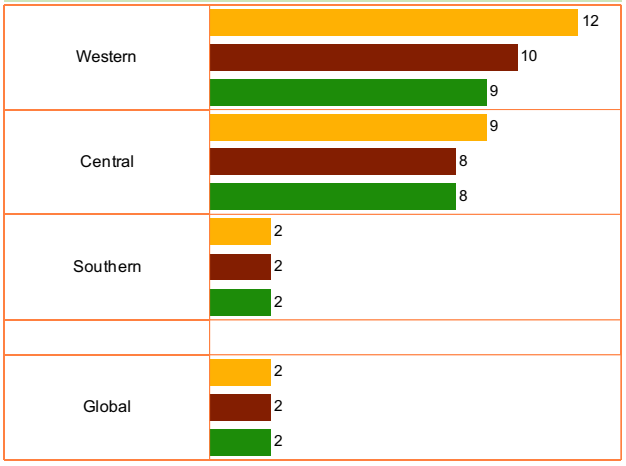
Figure 4.9.2.8: Percentage distribution of Disability Adjusted Life Years rate due to H influenzae type B meningitis by main components in 2010, by sub-Saharan region



Source: IHME, May 2013

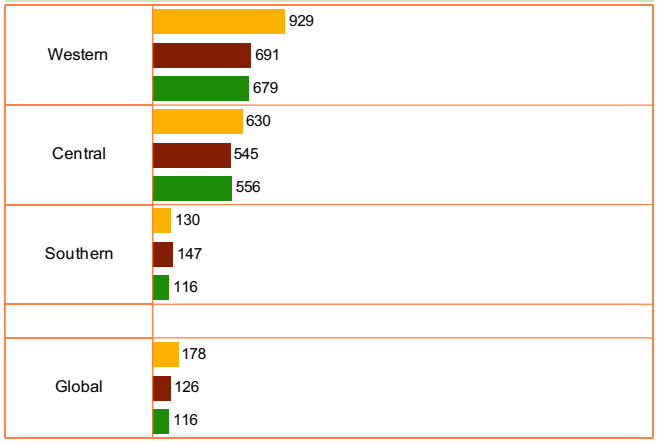
4.9.3 Pneumococcal meningitis

Figure 4.9.3.1: Mortality rate due to Pneumococcal meningitis per 100 000 in 1990, 2005 and 2010, by sub-Saharan region



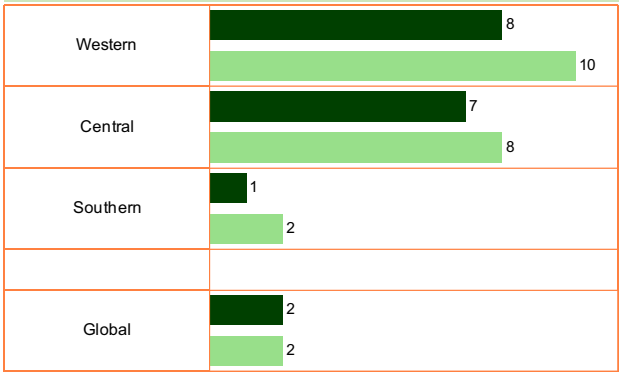
Source: IHME, May 2013

Figure 4.9.3.2: Disability Adjusted Life Years (DALY) rate due to Pneumococcal meningitis per 100 000 in 1990, 2005 and 2010, by sub-Saharan region



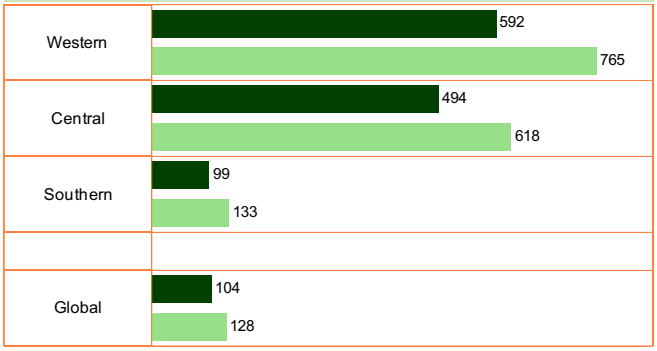
Source: IHME, May 2013

Figure 4.9.3.3: Mortality rate due to Pneumococcal meningitis per 100 000 in 2010, by sub-Saharan region and by sex



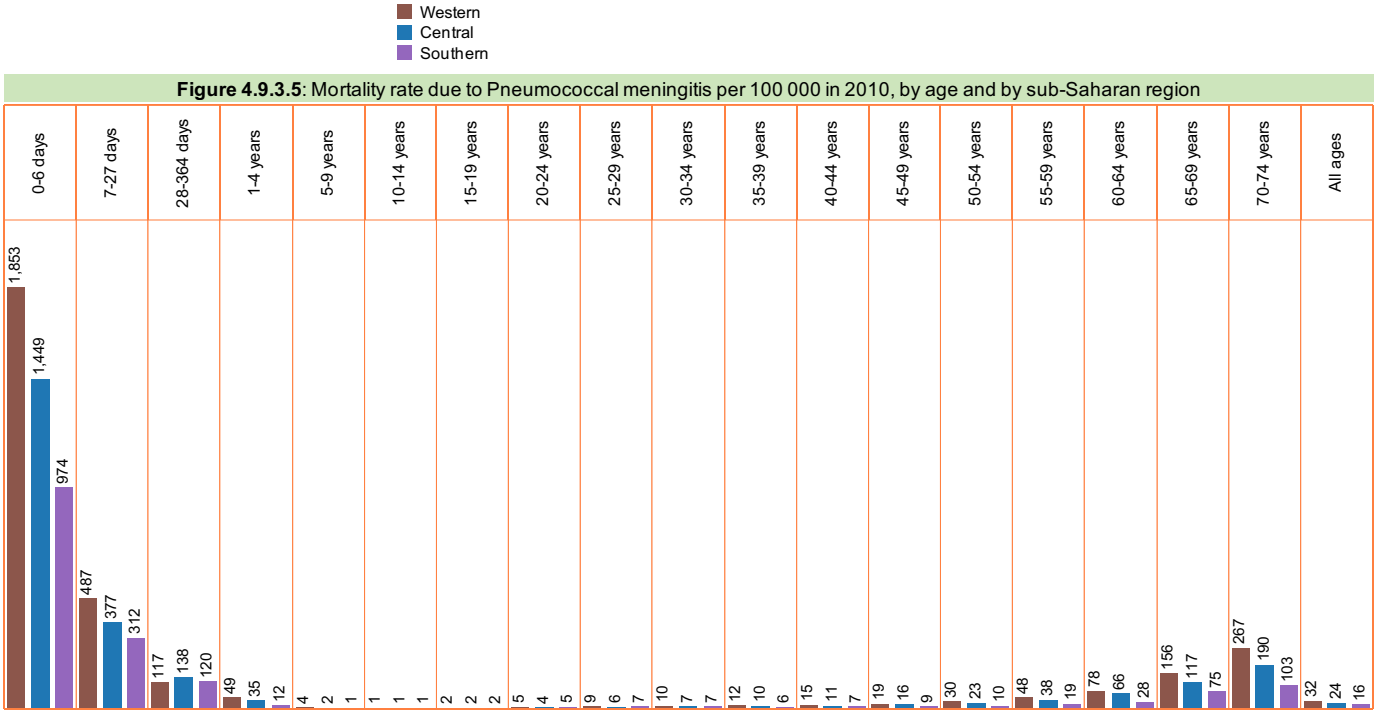
Source: IHME, May 2013

Figure 4.9.3.4: Disability Adjusted Life Years (DALY) due to Pneumococcal meningitis per 100 000 in 2010, by sub-Saharan region and b y sex



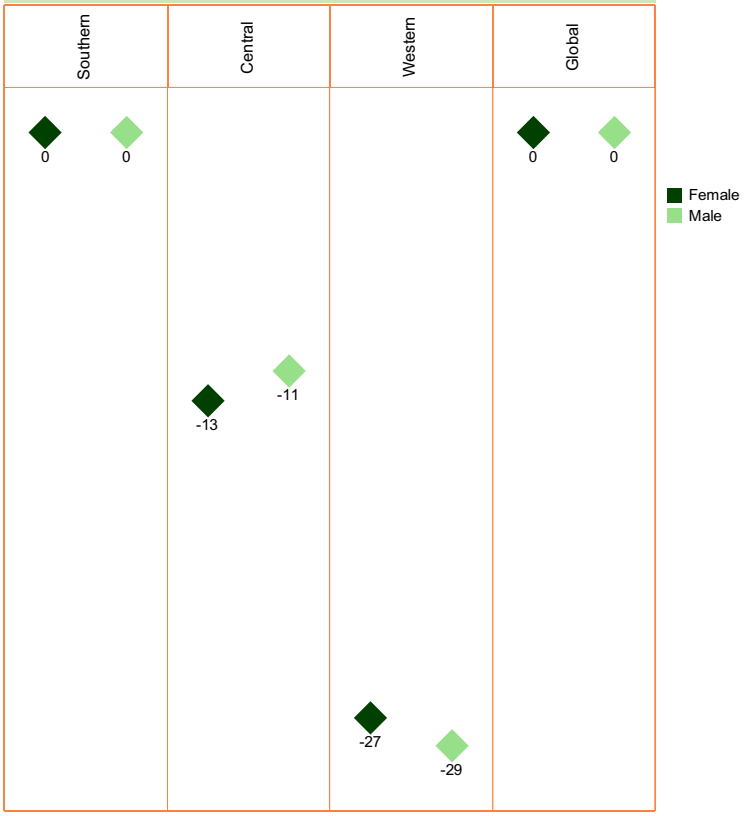
Source: IHME, May 2013

Figure 4.9.3.5: Mortality rate due to Pneumococcal meningitis per 100 000 in 2010, by age and by sub-Saharan region



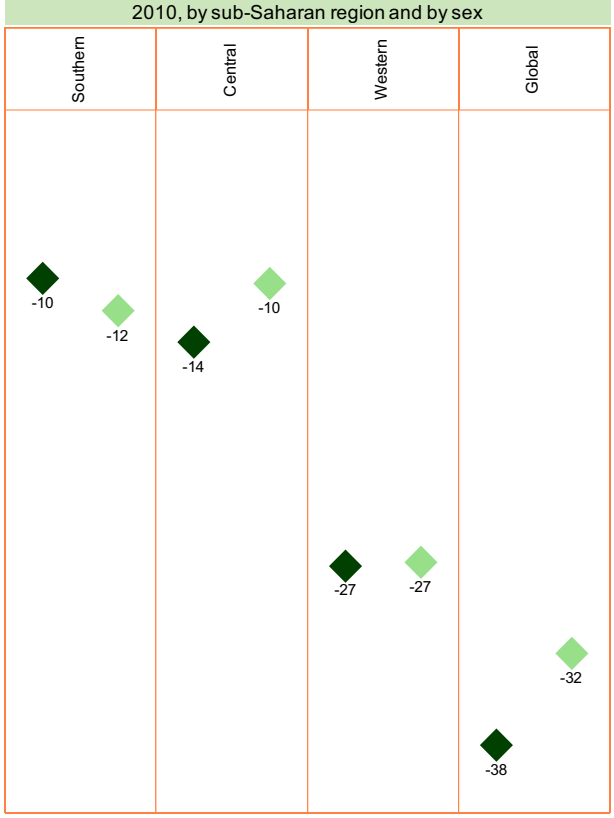
Source: IHME, May 2013

Figure 4.9.3.6: Percentage change in Mortality rate due to Pneumococcal meningitis between 1990 and 2010, by sub-Saharan region and by sex



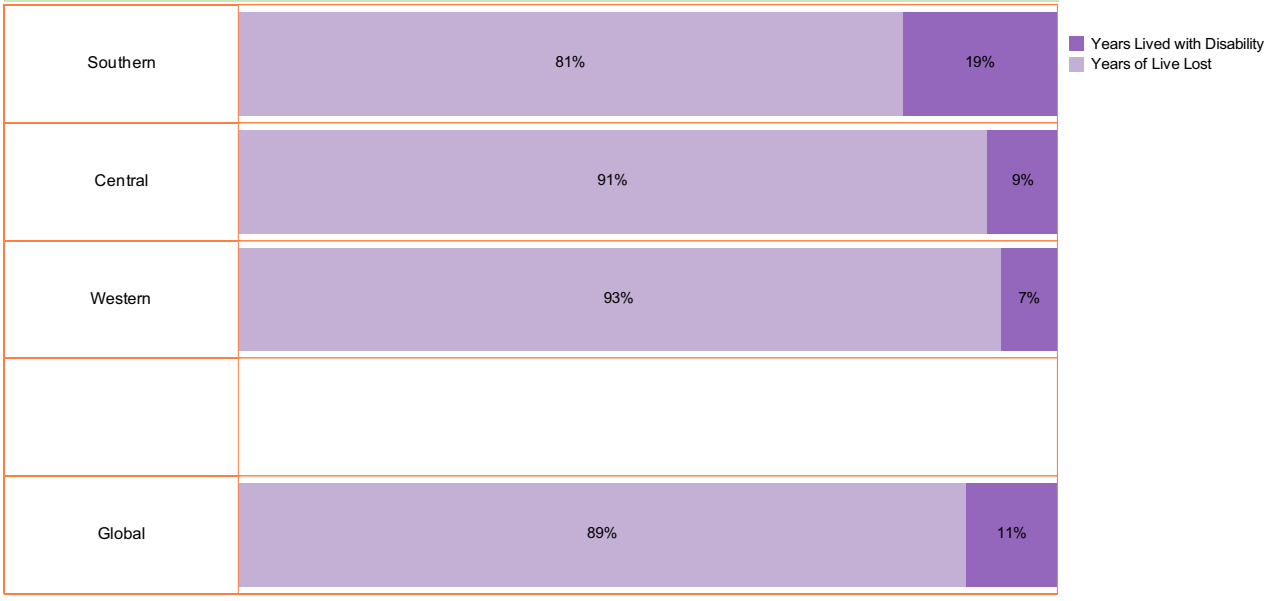
Source: IHME, May 2013

Figure 4.9.3.7: Percentage change in Disability Adjusted Life Years (DALY) rate due to Pneumococcal meningitis between 1990 and 2010, by sub-Saharan region and by sex



Source: IHME, May 2013

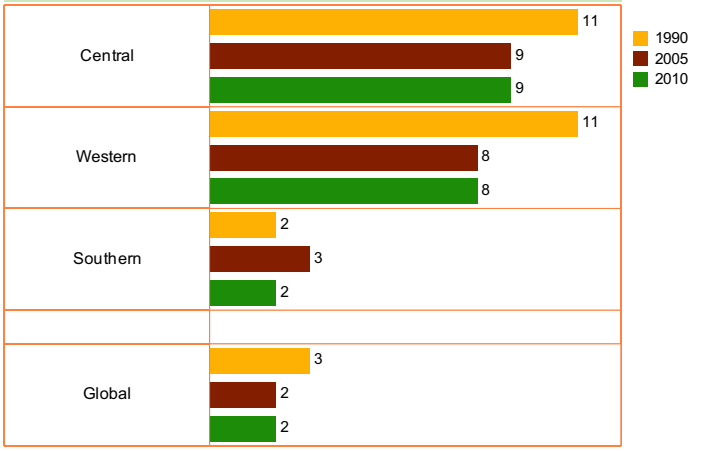
Figure 4.9.3.8: Percenatge distribution of Disability Adjusted Life Years rate due to Pneumococcal meningitis by main components in 2010, by sub-Saharan region



Source: IHME, May 2013

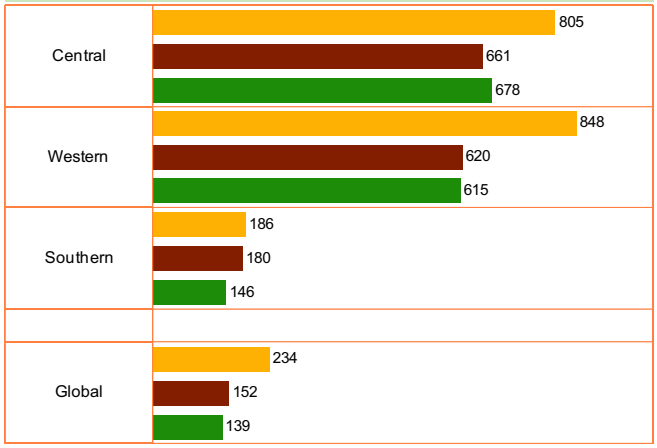
4.9.4 Other meningitis*

Figure 4.9.4.1: Mortality rate due to other meningitis per 100 000 in 1990, 2005 and 2010, by sub-Saharan region



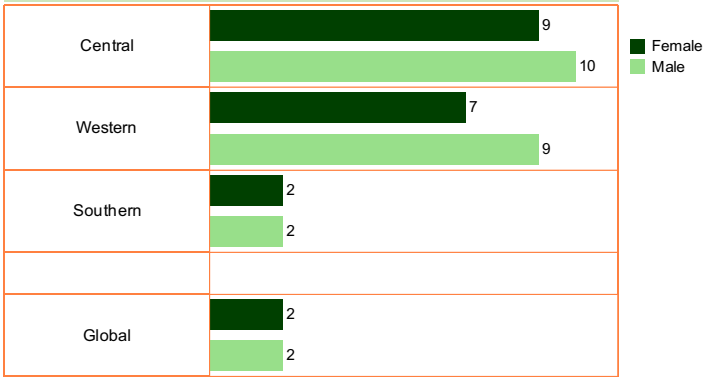
Source: IHME, May 2013

Figure 4.9.4.2: Disability Adjusted Life Years (DALY) rate due to other meningitis per 100 000 in 1990, 2005 and 2010, by sub-Saharan region



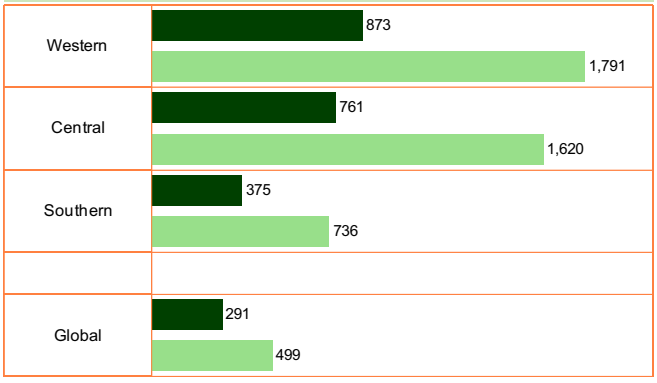
Source: IHME, May 2013

Figure 4.9.4.3: Mortality rate due to other meningitis per 100 000 in 2010, by sub-Saharan region and by sex



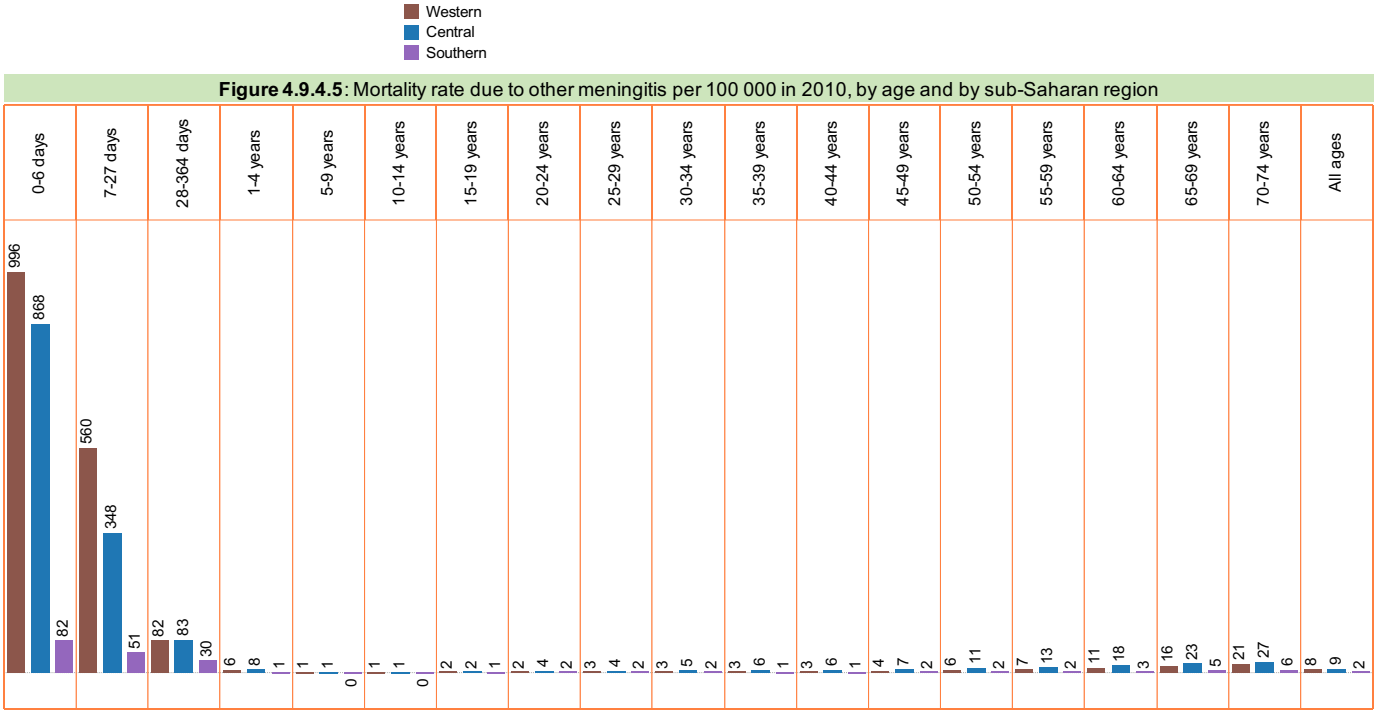
Source: IHME, May 2013

Figure 4.9.4.4: Disability Adjusted Life Years (DALY) due to other meningitis per 100 000 in 2010, by sub-Saharan region and by sex



Source: IHME, May 2013

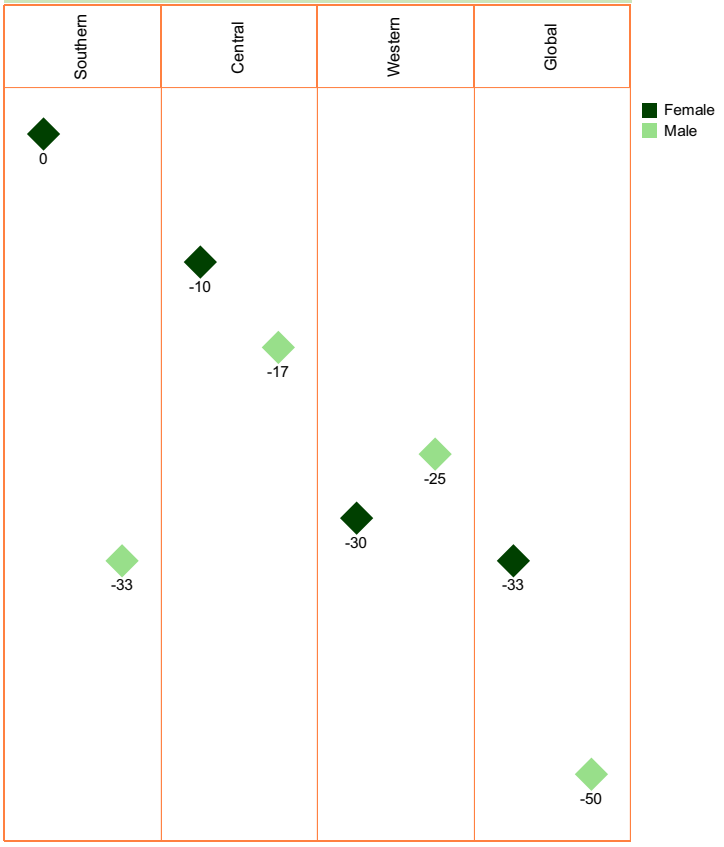
Figure 4.9.4.5: Mortality rate due to other meningitis per 100 000 in 2010, by age and by sub-Saharan region



Source: IHME, May 2013

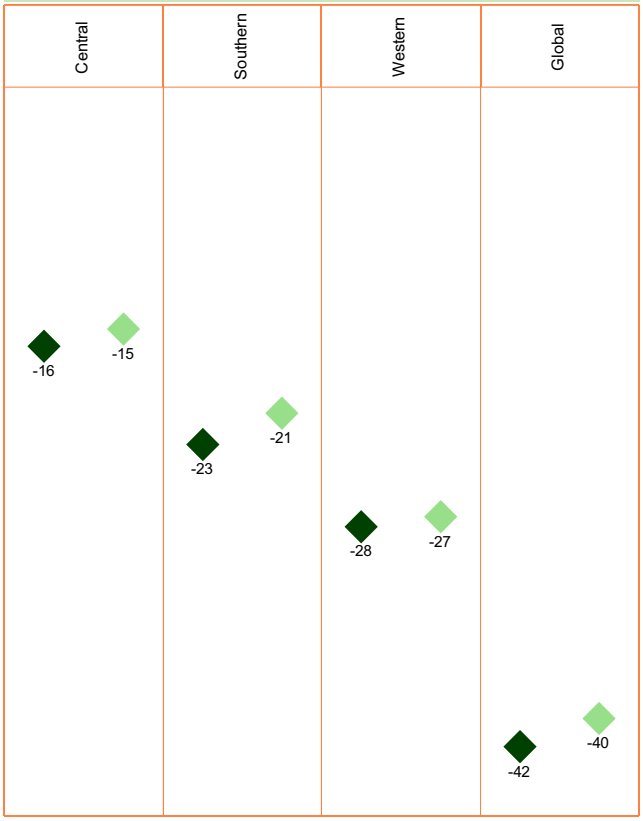
* all menigitis except Pneumococcal meningitis and H influenzatype B meningitis

Figure 4.9.4.6: Percentage change in Mortality rate due to other meningitis between 1990 and 2010, by sub-Saharan region and by sex



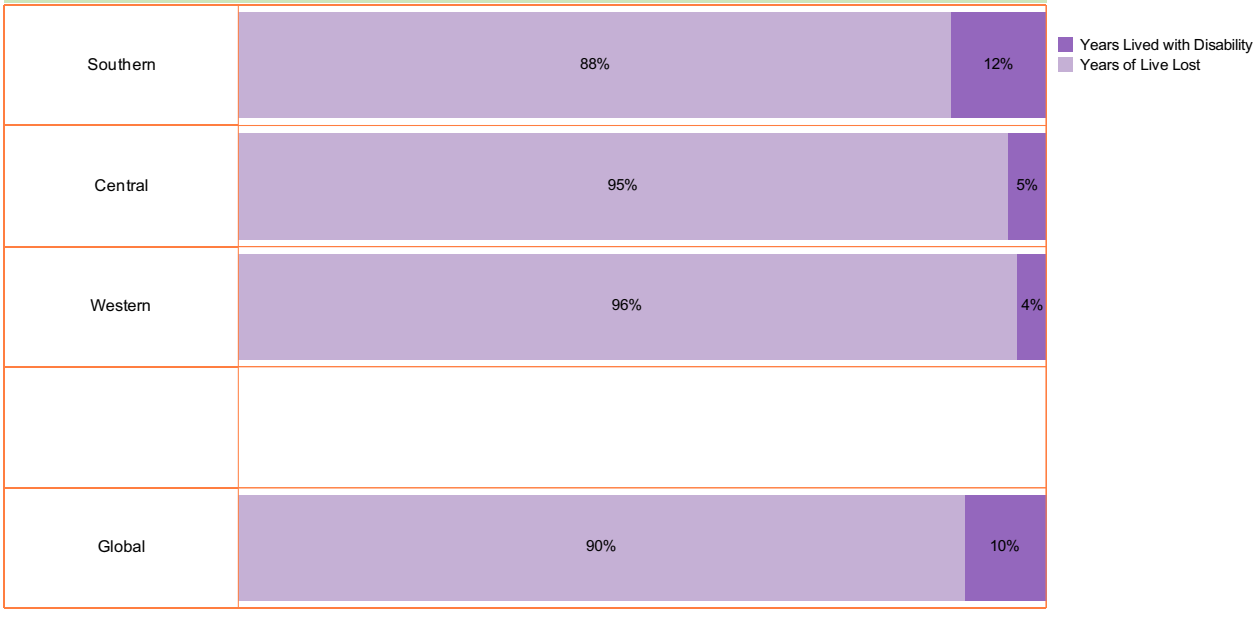
Source: IHME, May 2013

Figure 4.9.4.7: Percentage change in Disability Adjusted Life Years (DALY) rate due to other meningitis between 1990 and 2010, by sub-Saharan region and by sex



Source: IHME, May 2013

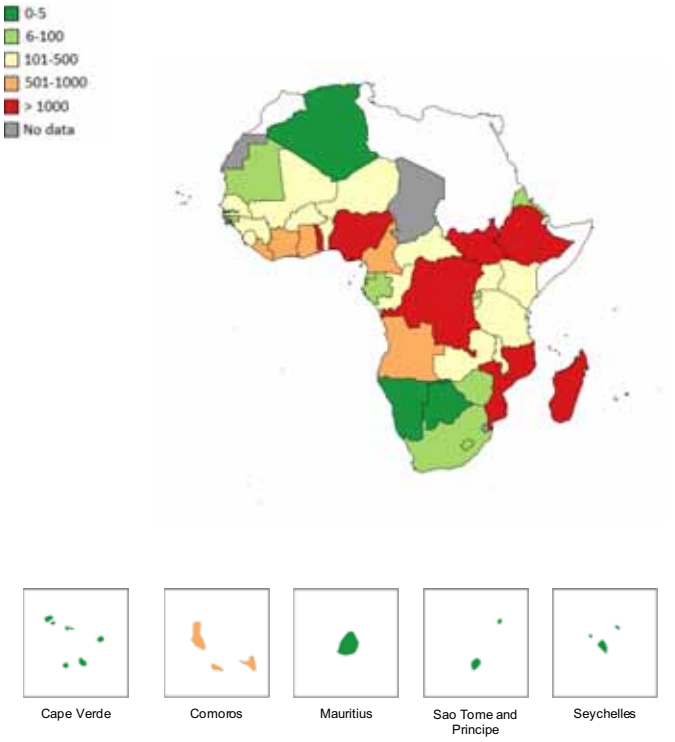
Figure 4.9.4.8: Percentage distribution of Disability Adjusted Life Years rate due to other meningitis by main components in 2010, by sub-Saharan region



Source: IHME, May 2013

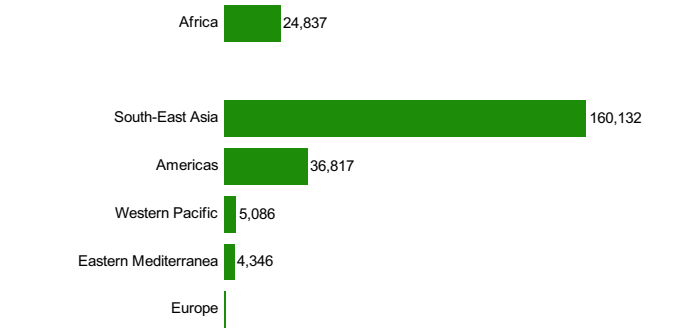
4.10 Neglected tropical diseases

Figure 4.10.1: Number of new cases of leprosy in the African Region, 2011



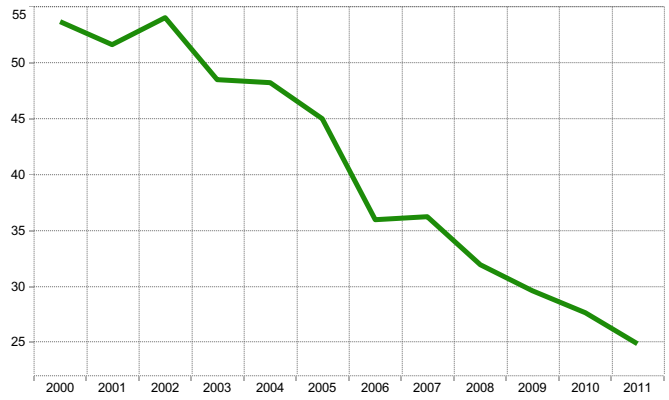
Source: WHO, September 2013

Figure 4.10.3: Number of reported cases of leprosy by WHO Region, 2011



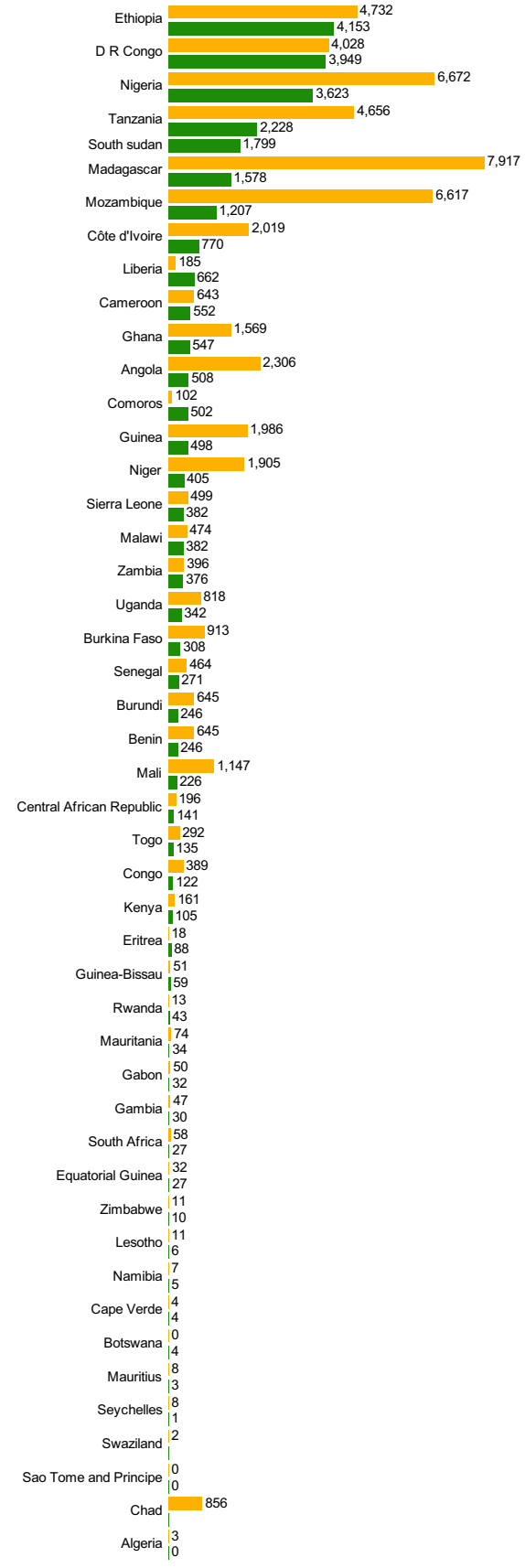
Source: WHO, September 2013

Figure 4.10.4: Trend in number of new cases of leprosy (in thousands) in the African Region, from 2000 to 2011



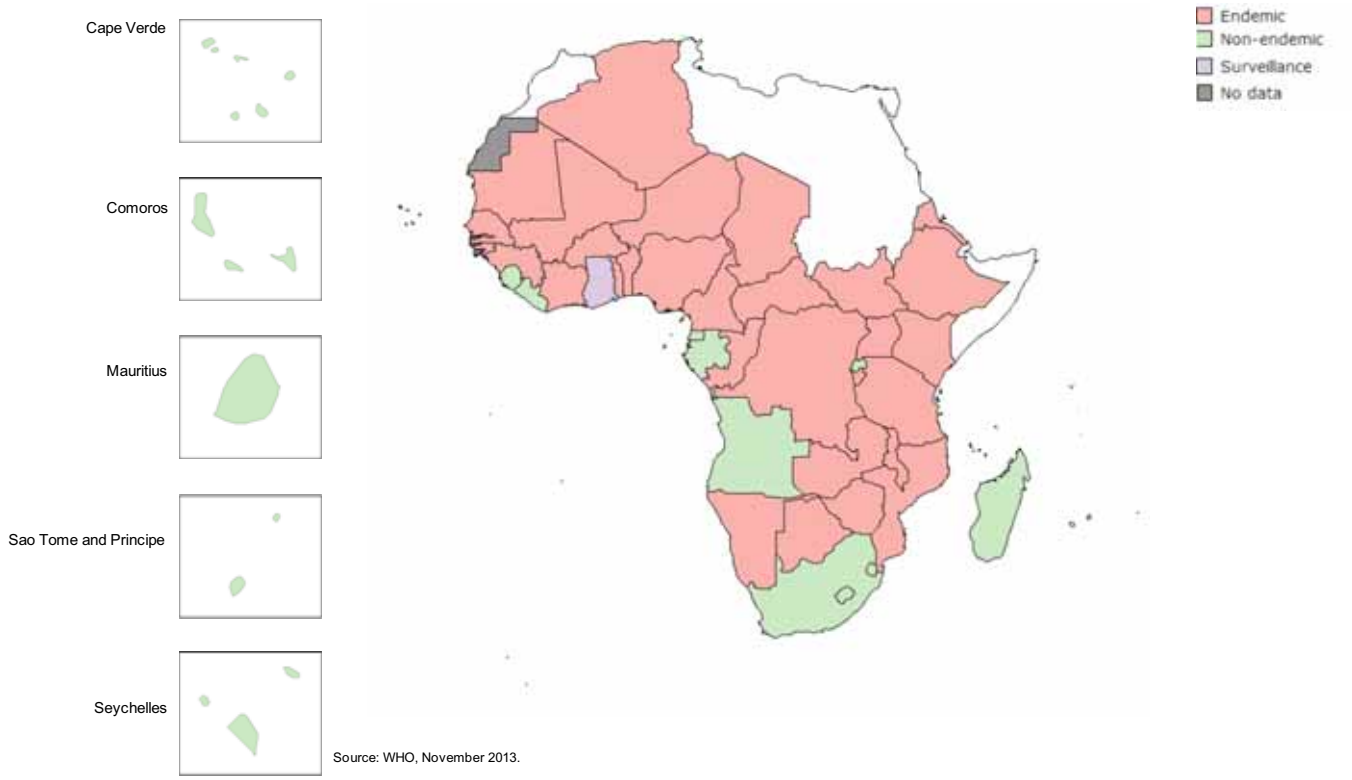
Source: WHO, September 2013

Figure 4.10.2: Number of new cases of leprosy in the African Region, 2000 and 2011



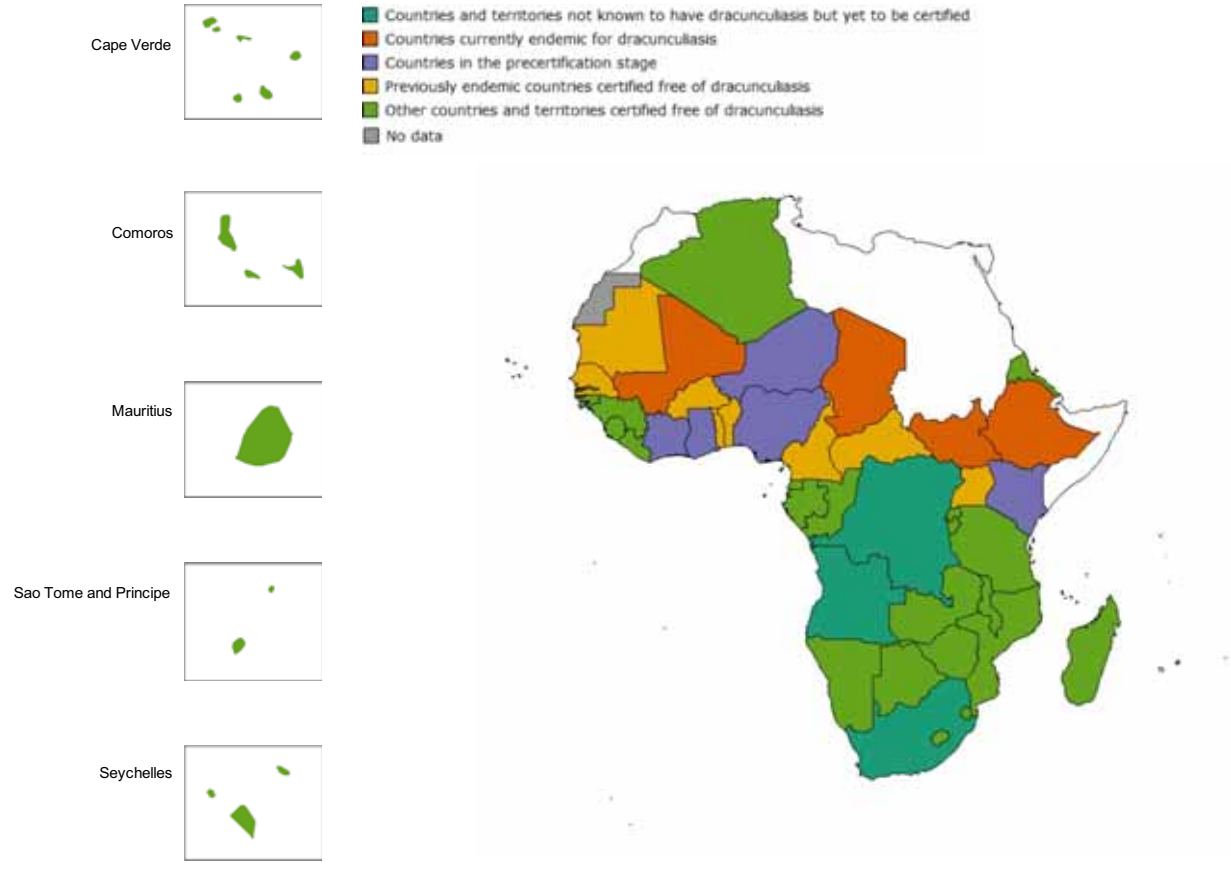
Source: WHO, September 2013

Figure 4.10.5: Status of endemicity for blinding trachoma in the African Region, 2010



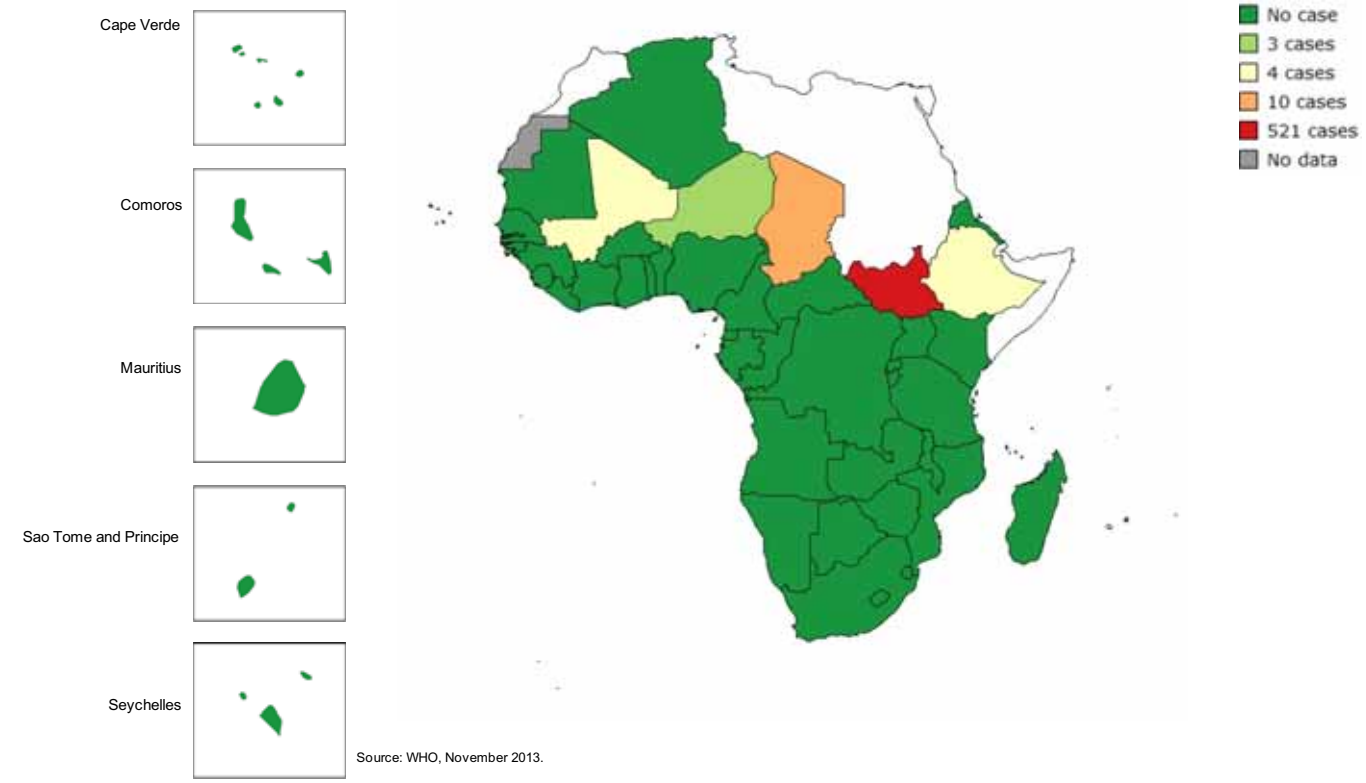
Source: WHO, November 2013.

Figure 4.10.6: Dracunculiasis certification status of countries at the beginning of 2013, in the African Region



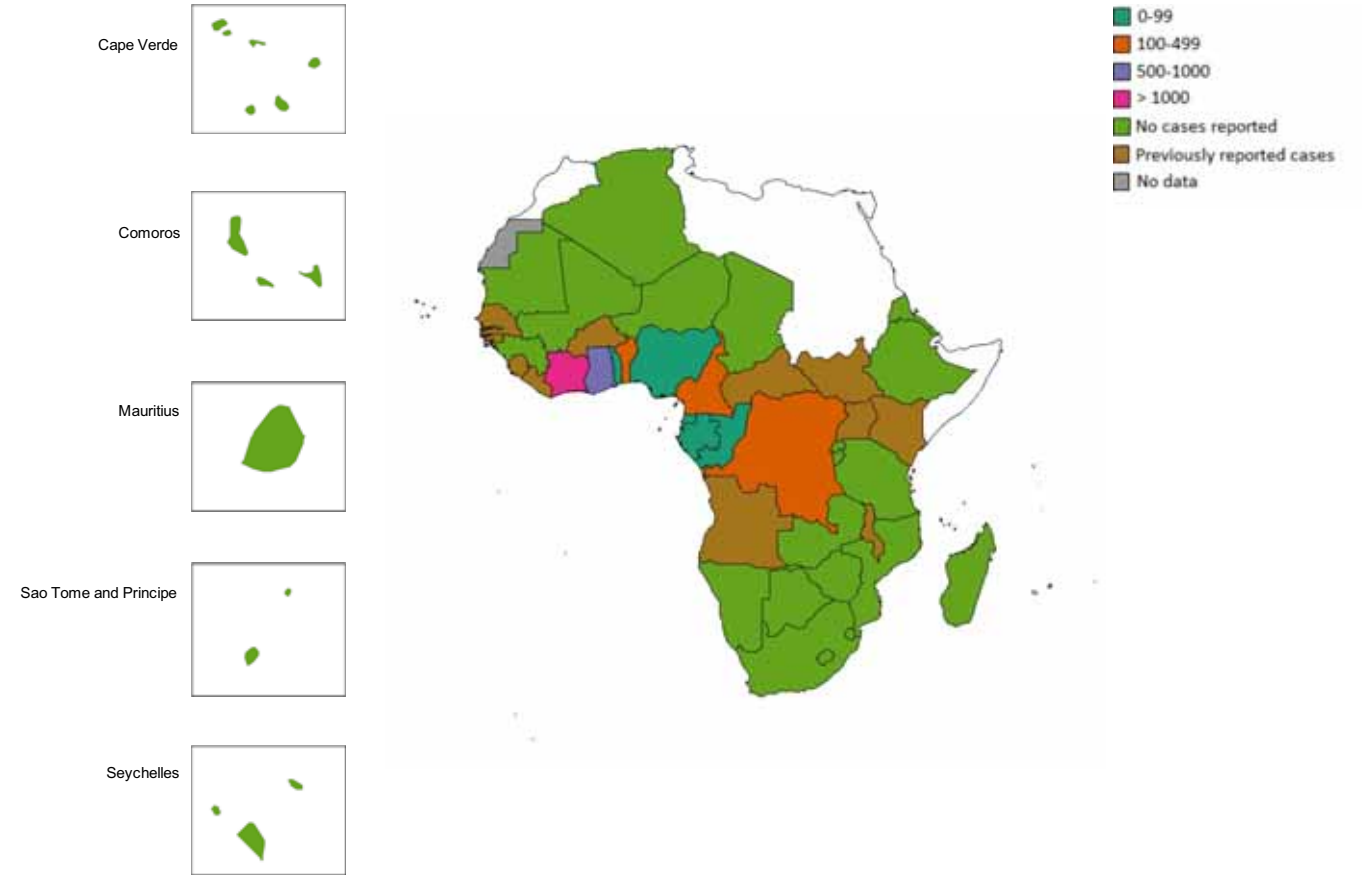
Source: WHO, November 2013.

Figure 4.10.7: Annual incidence of dracunculiasis cases in the African Region, 2012



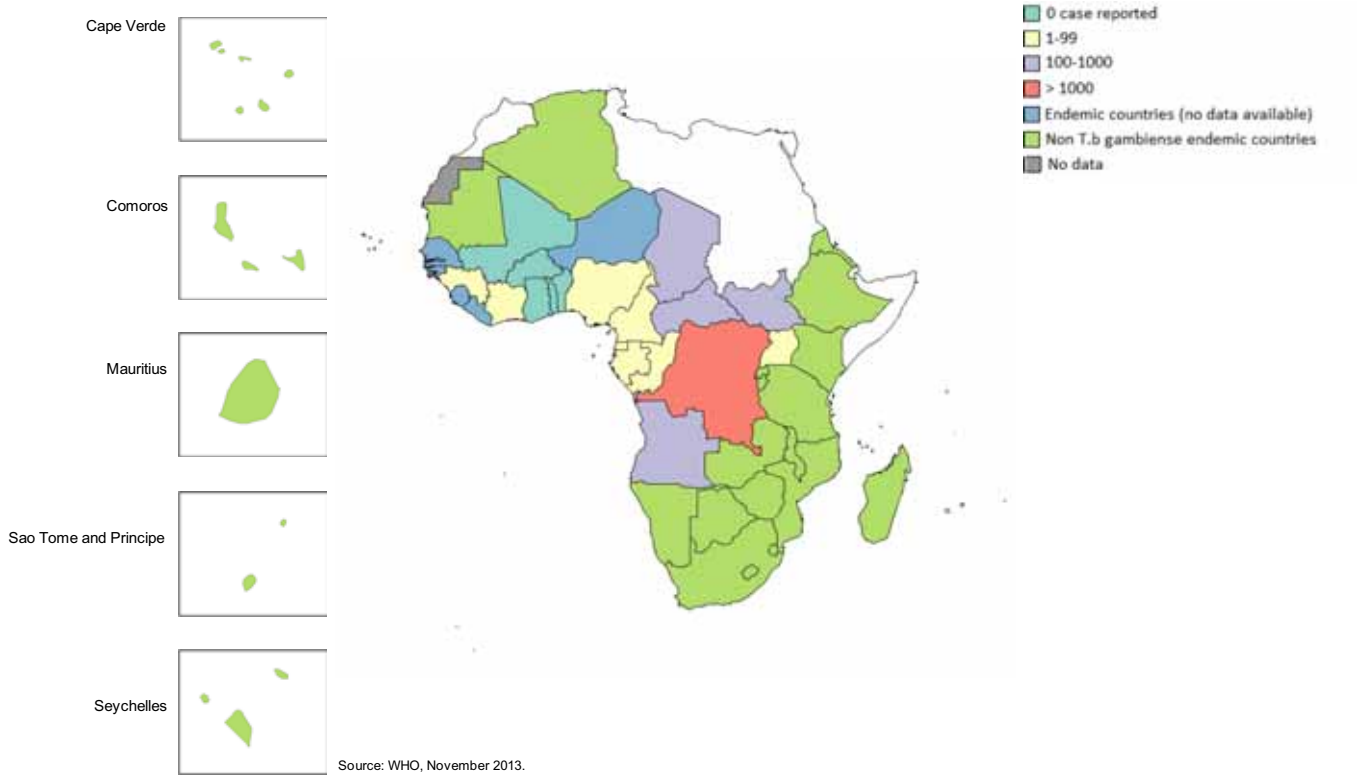
Source: WHO, November 2013.

Figure 4.10.8: Number of new reported cases of Buruli ulcer in the African Region, 2011



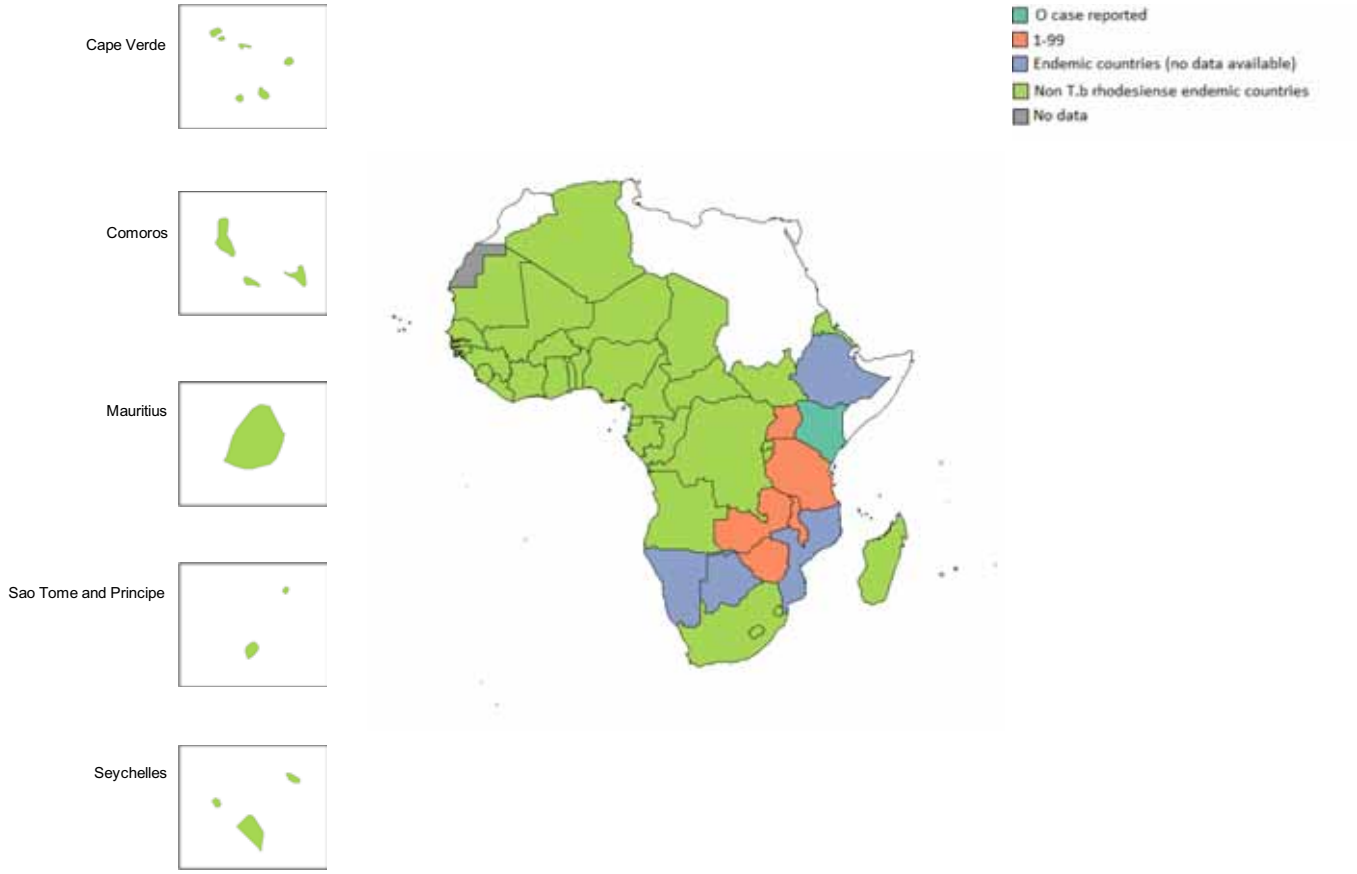
Source: WHO, November 2013.

Figure 4.10.9: Distribution of human african trypanosomiasis (caused by Trypanosoma brucei gambiense) in the African Region, 2011



Source: WHO, November 2013.

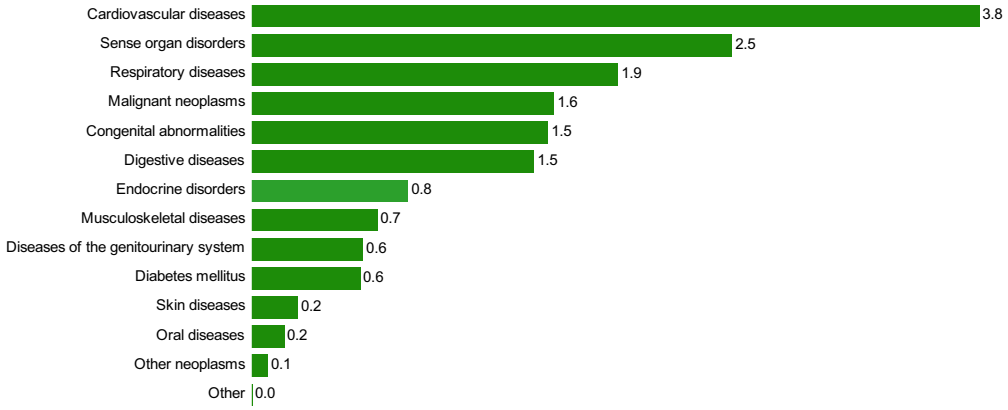
Figure 4.10.10: Distribution of human african trypanosomiasis (caused by Trypanosoma brucei rhodesiense) in the African Region, 2011



Source: WHO, November 2013.

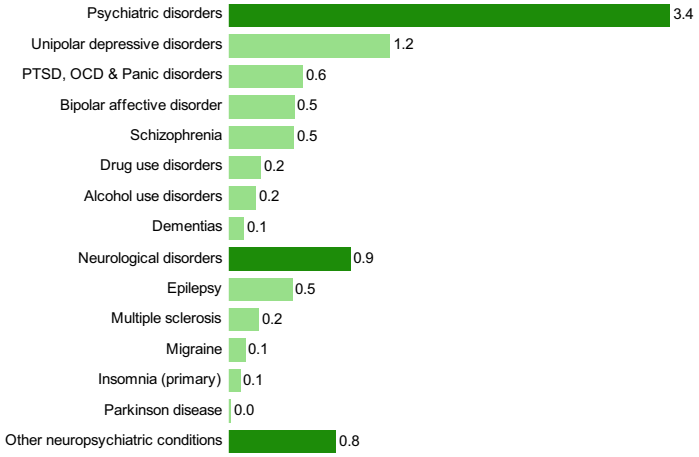
4.11 Noncommunicable diseases and conditions

Figure 4.11.1: Distribution of causes of noncommunicable burden of diseases (percentage of total DALYs) in the African Region, 2004



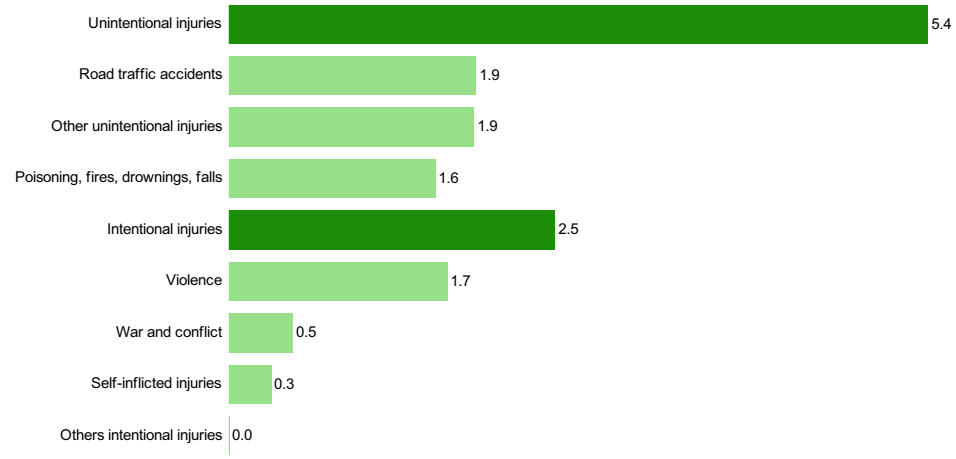
Source: WHO, November 2013

Figure 4.11.2: Distribution of causes of neuropsychiatric burden of diseases (percentage of total DALYs) in the African Region, 2004



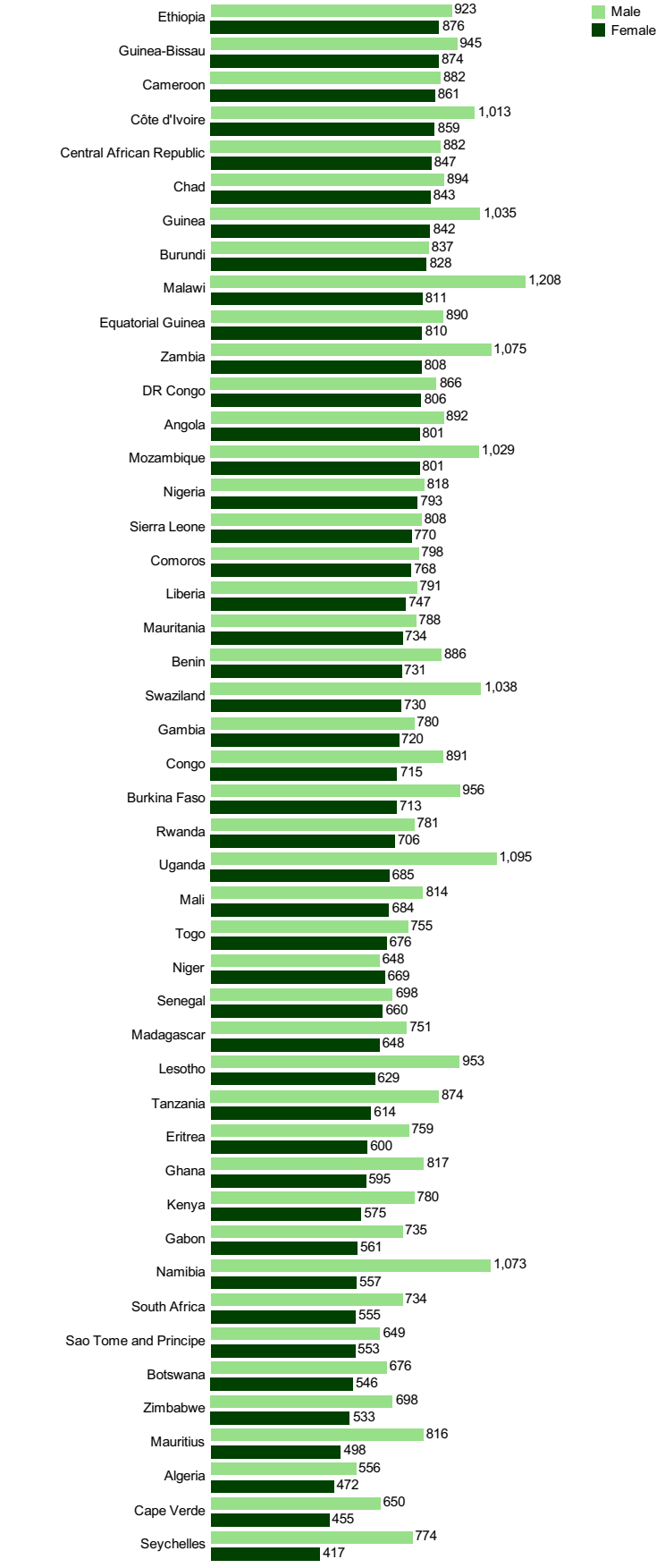
Source: WHO, November 2013

Figure 4.11.3: Distribution of causes of intentional and non-intentional injuries (percentage of total DALYs) in the African Region, 2004



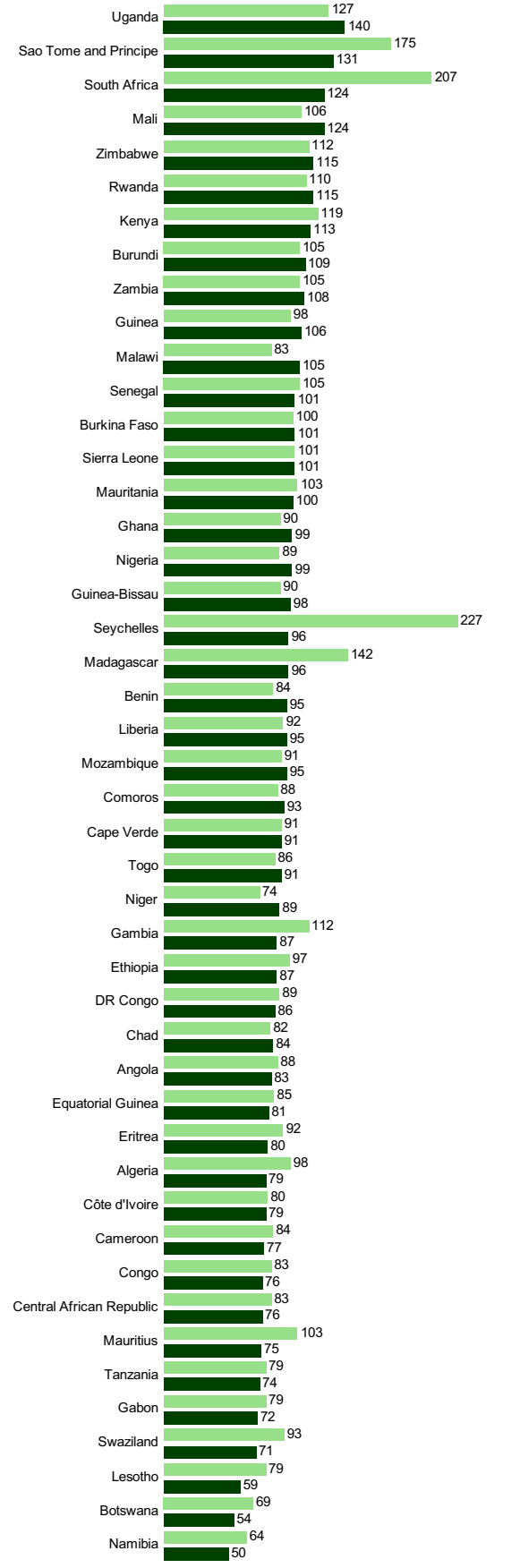
Source: WHO, November 2013

Figure 4.11.4: Age-standardized deaths rate per 100 000 due to noncommunicable diseases in the African Region, by sex, 2008



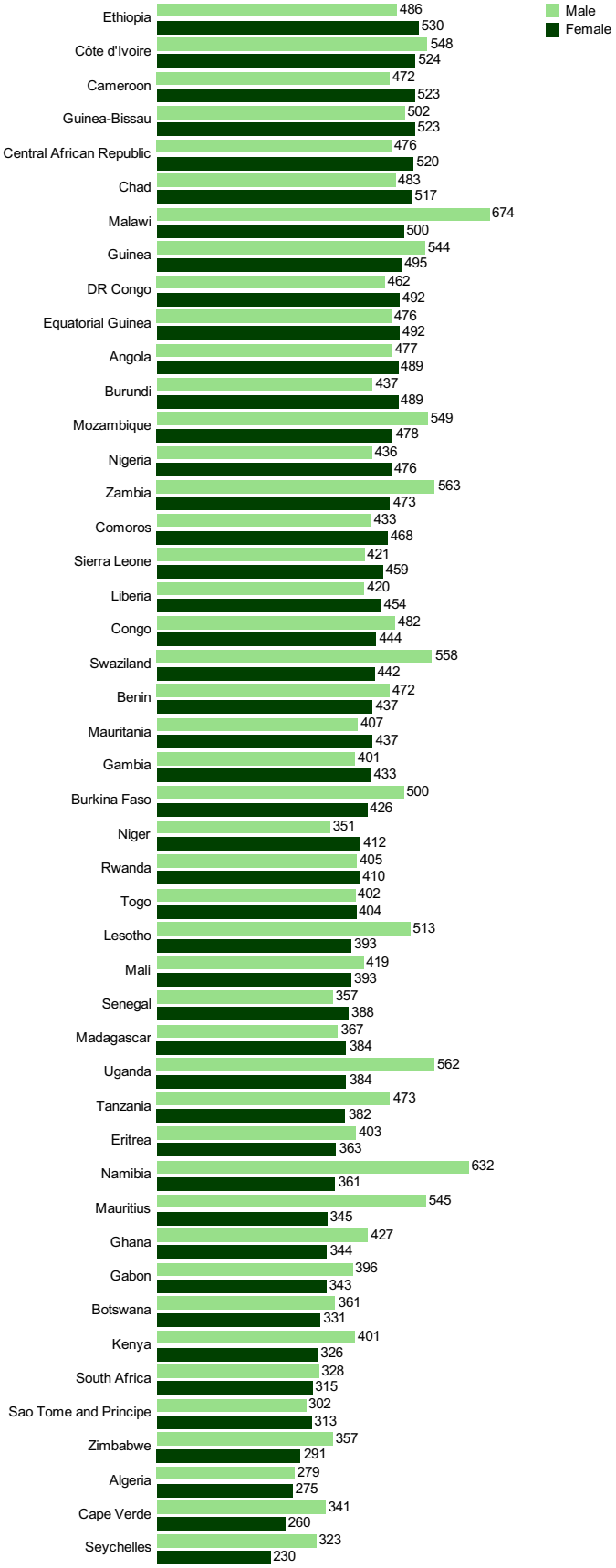
Source: WHO, November 2013.

Figure 4.11.5: Age-standardized deaths rate per 100 000 due to cancers in the African Region, by sex, 2008



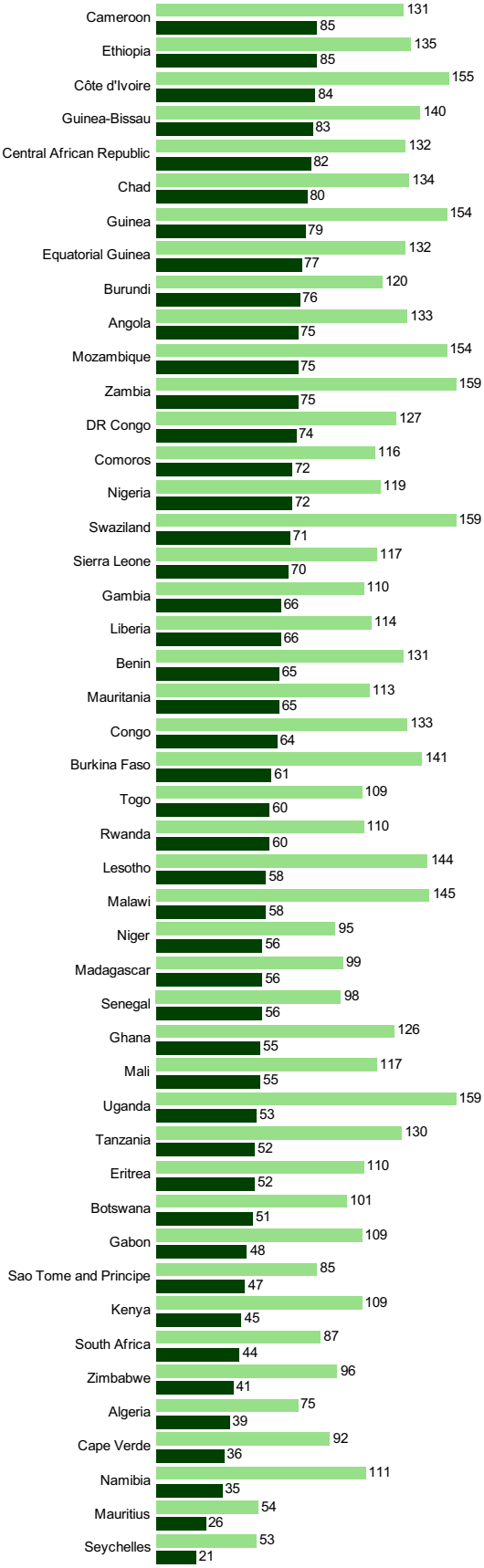
Source: WHO, November 2013.

Figure 4.11.6: Age-standardized deaths rate per 100 000 due to cardiovascular diseases and diabetes in the African Region, by sex, 2008



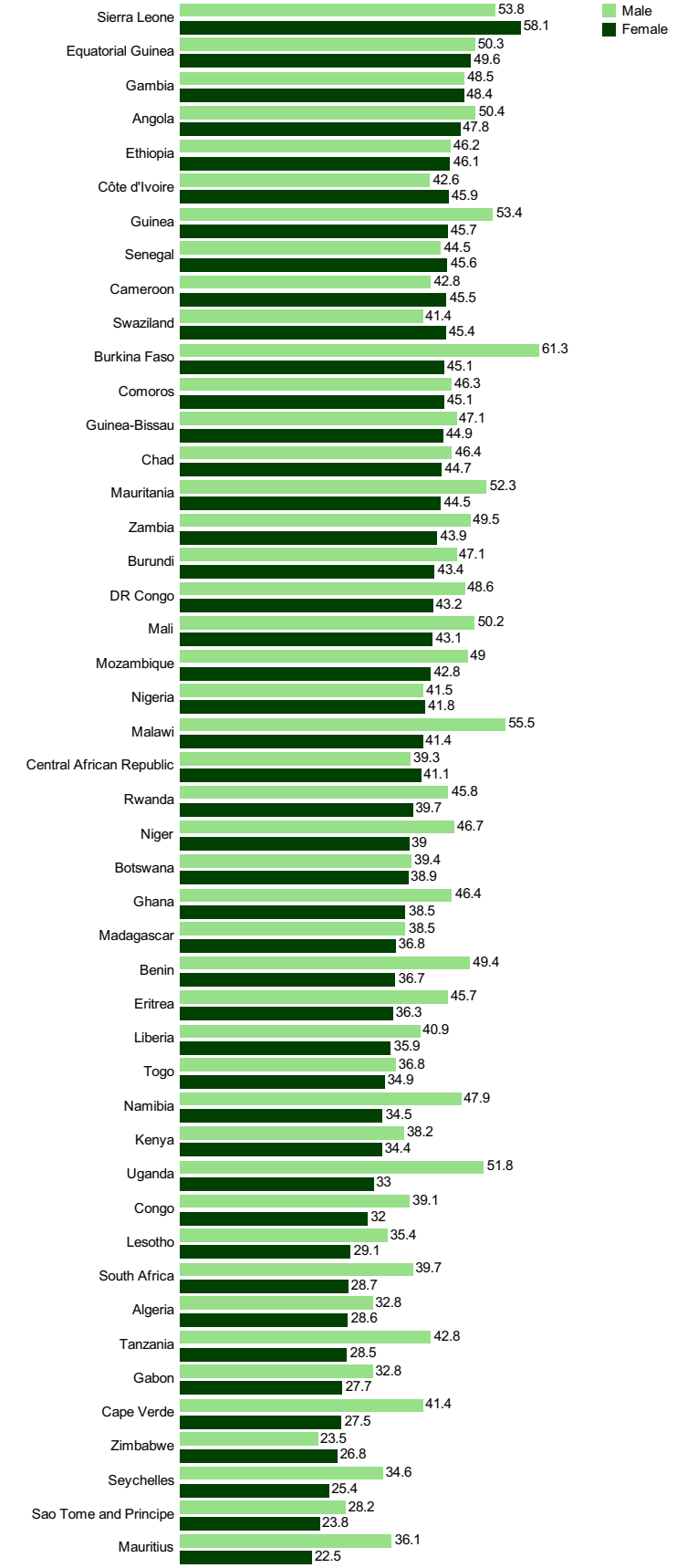
Source: WHO, November 2013.

Figure 4.11.7: Age-standardized deaths rate per 100 000 due to chronic respiratory diseases in the African Region, by sex, 2008



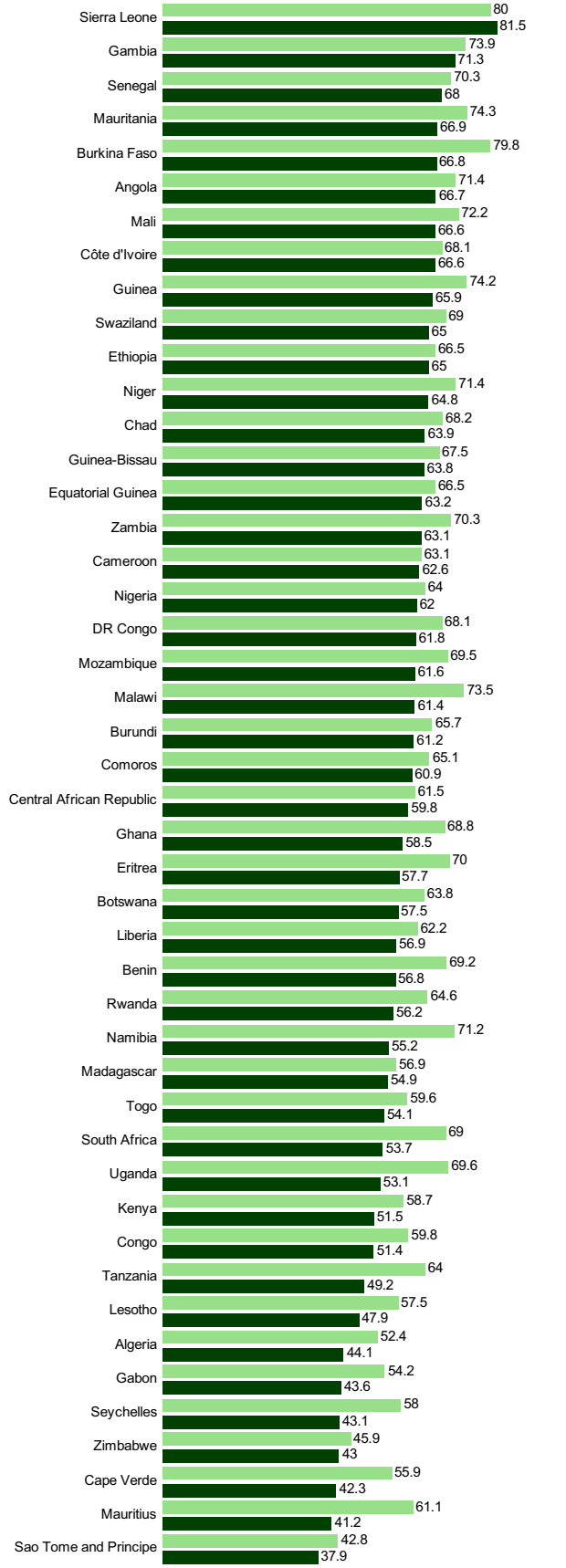
Source: WHO, November 2013.

Figure 4.11.8: Noncommunicable diseases deaths under age 60 as percentage of all noncommunicable diseases deaths in the African Region, by sex, 2008



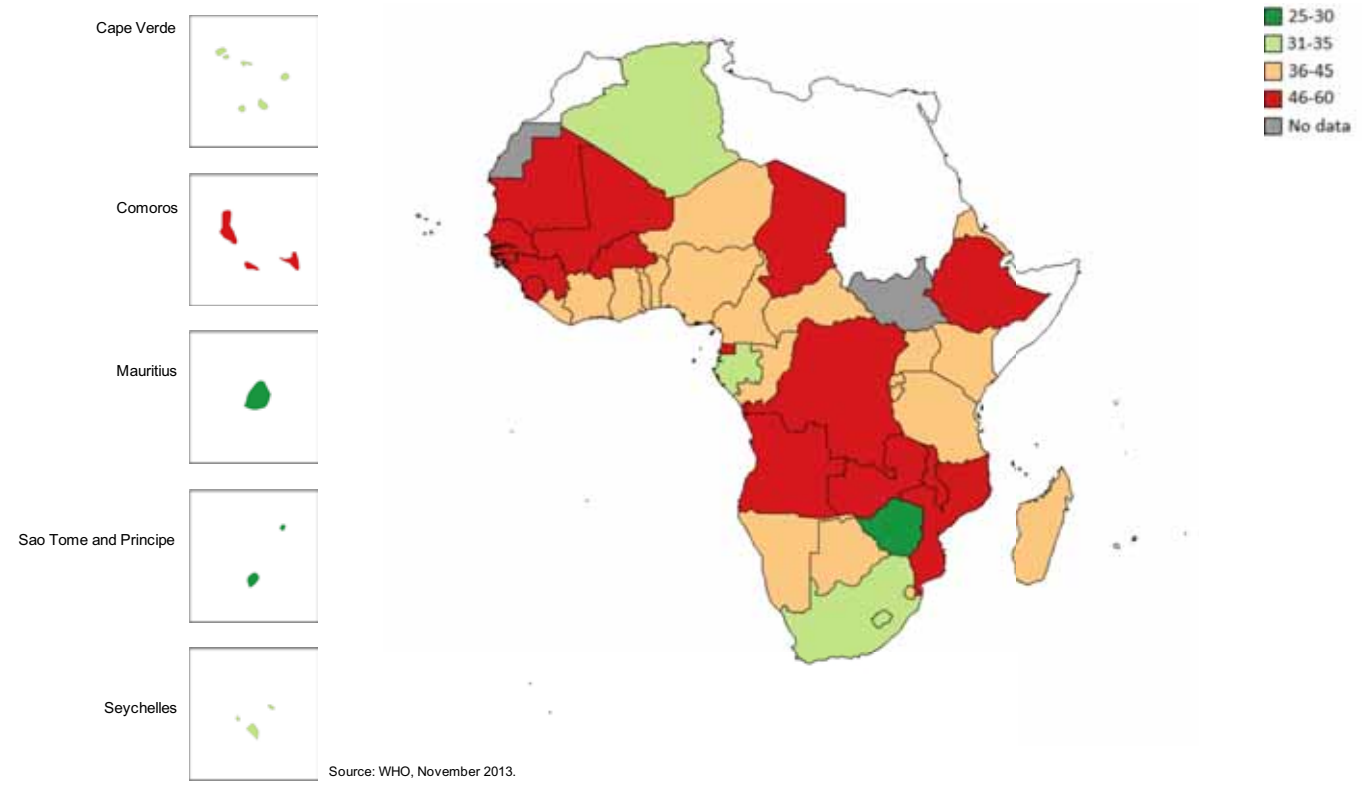
Source: WHO, November 2013.

Figure 4.11.9: Noncommunicable diseases deaths under age 70 as percentage of all noncommunicable diseases deaths in the African Region, by sex, 2008



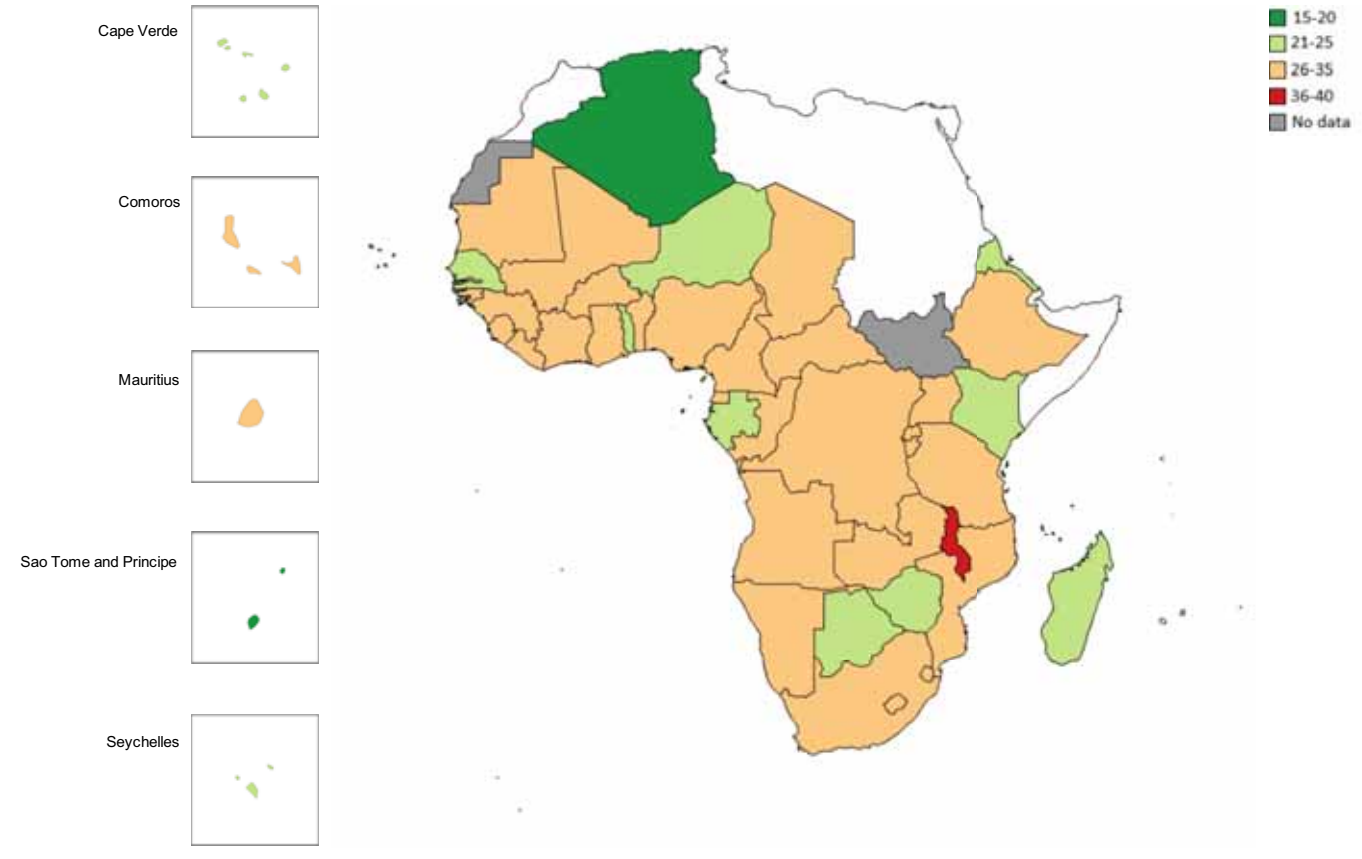
Source: WHO, November 2013.

Figure 4.11.10: Noncommunicable diseases deaths under age 60 as percentage of all noncommunicable deaths in the African Region, 2008



Source: WHO, November 2013.

Figure 4.11.11: Distribution of the probability (%) of dying between exact ages 30 and 70 from any of cardiovascular diseases, cancers, diabetes or chronic respiratory diseases in the African Region, 2008



Source: WHO, November 2013.

5. Key determinants

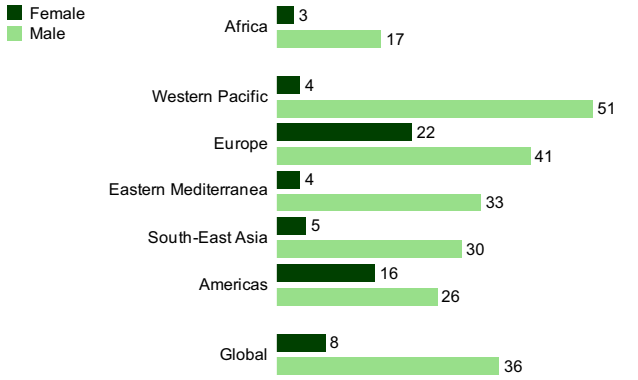
5.1.Risk factors for health

Figure 5.1.1 : Prevalence of smoking any tobacco product among adults aged 15 years of age or older (%) in 2009 in the African Region

Source : WHO, 2013.

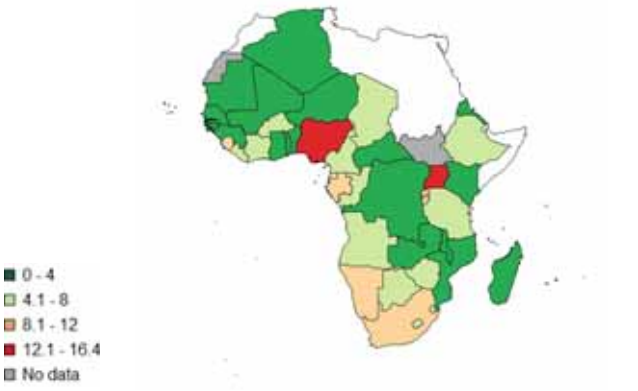
Cape Verde | Comoros | Mauritius | Sao Tome & Principe | Seychelles

Figure 5.1.2 : Prevalence of smoking any tobacco product among adults aged 15 years of age or older (%) in 2009 by WHO Region and sex



Source : WHO, 2013.

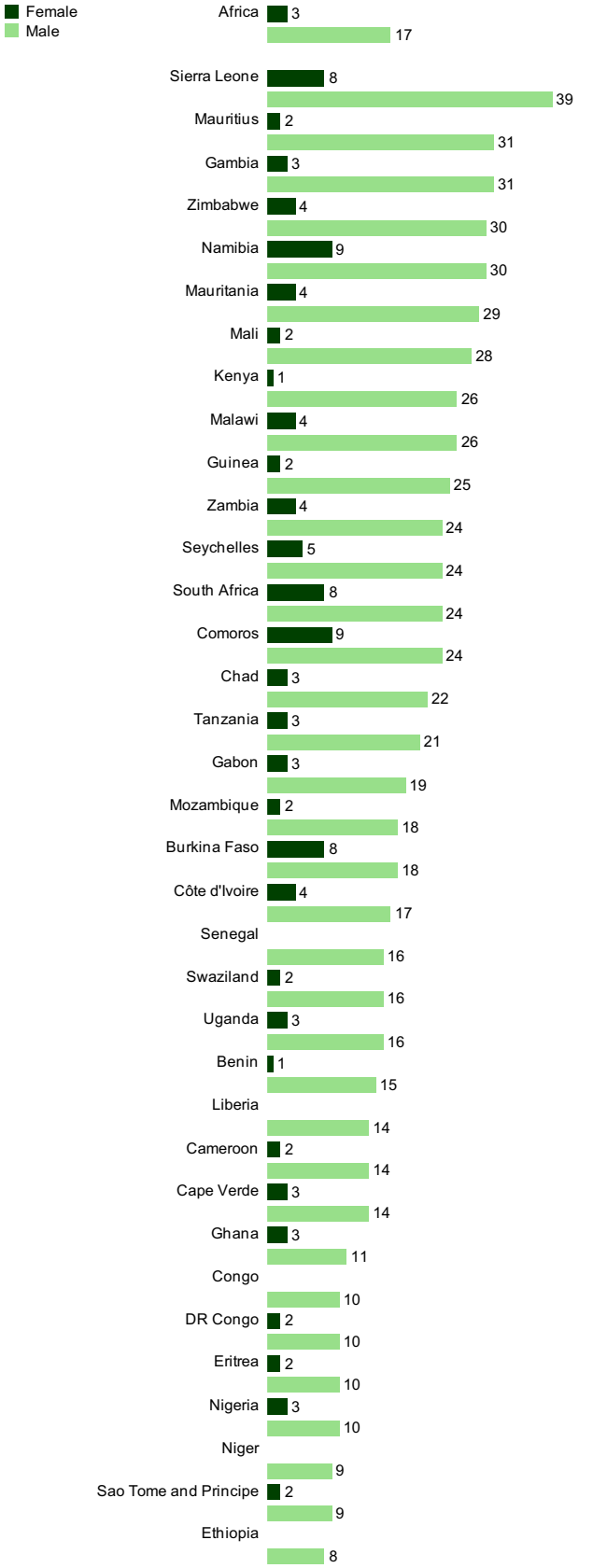
Figure 5.1.4 : Alcohol per capita consumption (litres per person) among adults aged 15 years of age or older in 2008 in the African Region



Source : WHO, 2013.

Cape Verde | Comoros | Mauritius | Sao Tome & Principe | Seychelles

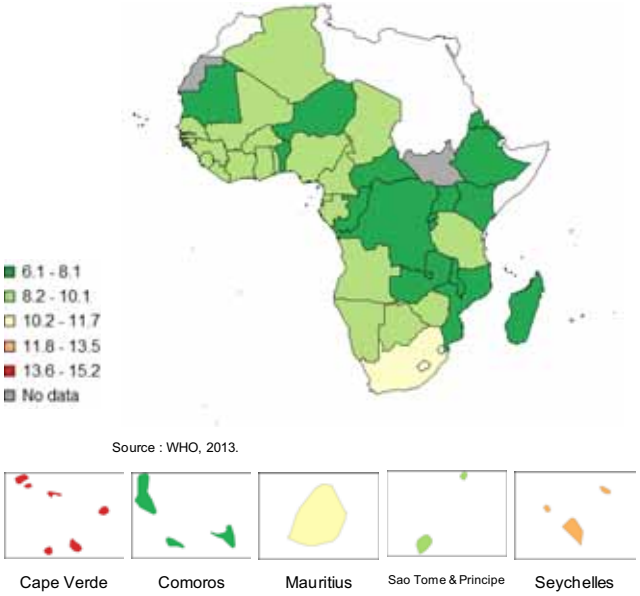
Figure 5.1.3 : Prevalence of smoking any tobacco product among adults aged 15 years of age or older (%) in 2009 in the African Region, by sex



Countries of the African Region without data are not included in the chart.

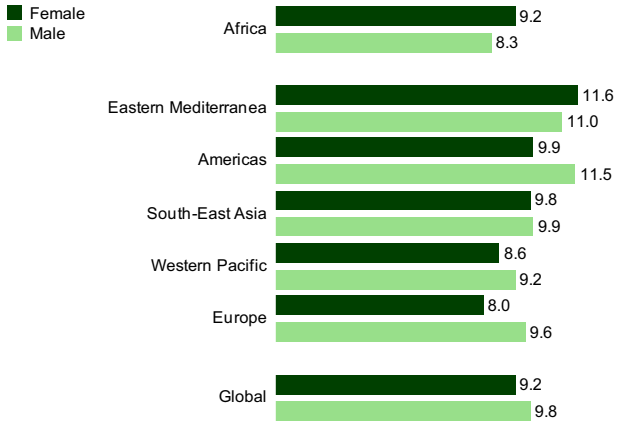
Source : WHO, 2013.

Figure 5.1.5 : Prevalence of raised fasting blood glucose* among adults aged 25 years or older (%) in 2008 in the African Region



Source : WHO, 2013.

Figure 5.1.6 : Prevalence of raised fasting blood glucose among adults aged 25 years or older (%) in 2008 by WHO Region and sex

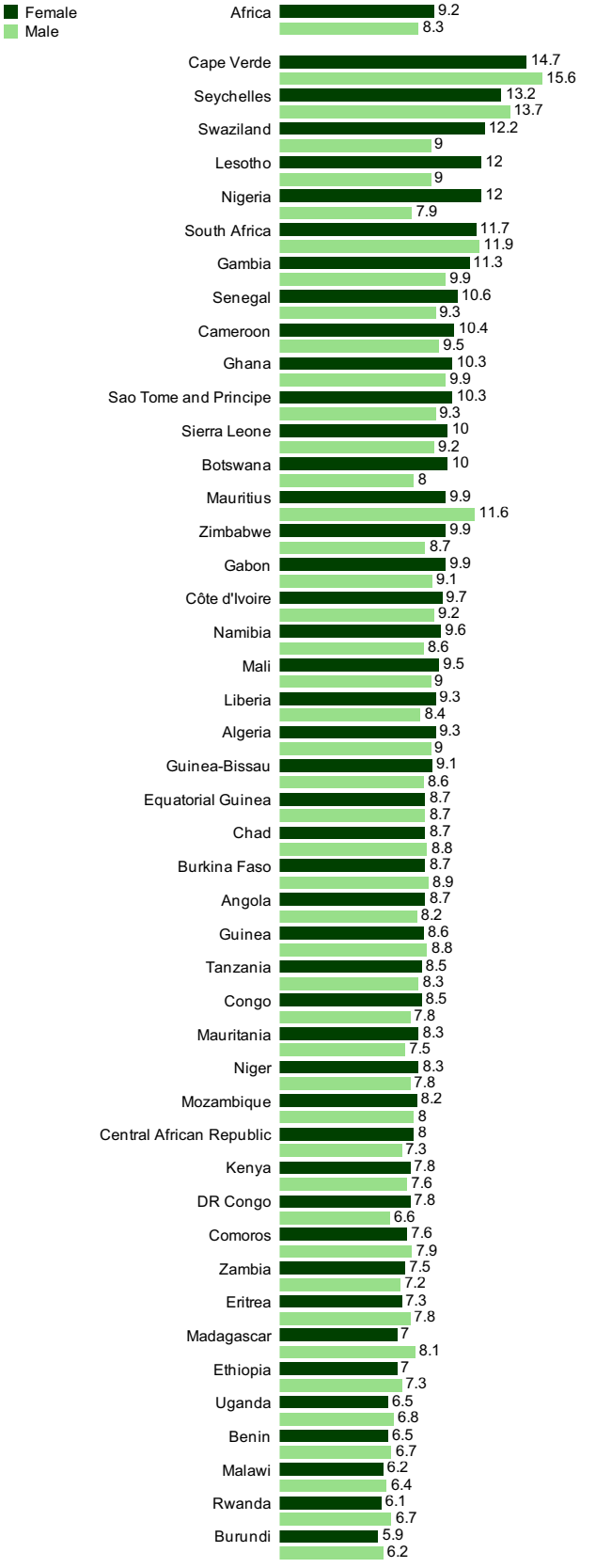


Source : WHO, 2013.

Figure 5.1.8 : Prevalence of raised blood pressure among adults aged 25 years or older (%) in 2008 in the African Region

Source : WHO, 2013.

Figure 5.1.7 : Prevalence of raised fasting blood glucose among adults aged 25 years or older (%) in 2008 in the African Region, by sex

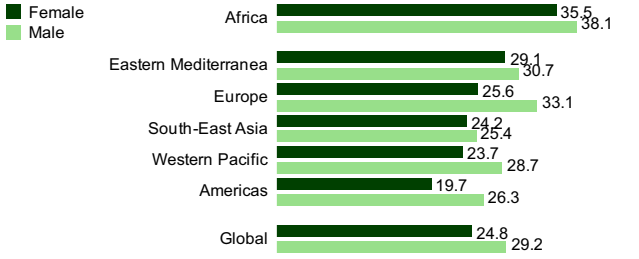


*Percent of defined population with fasting glucose ≥126 mg/dl (7.0 mmol/l) or on medication for raised blood glucose.

Countries of the African Region without data are not included in the chart.

Source : WHO, 2013.

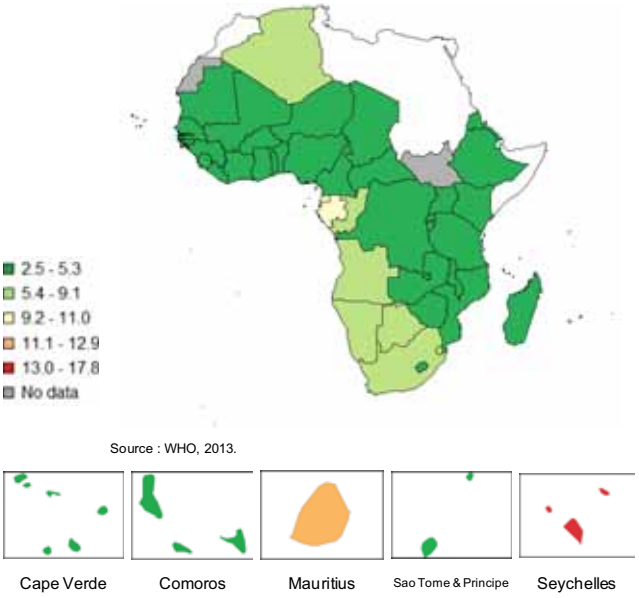
Figure 5.1.9 : Prevalence of raised blood pressure* among adults aged 25 years or older (%) in 2008 by WHO Region and sex



*Systolic Blood Pressure (SBP)≥140 or Diastolic Blood Pressure (DBP)≥90

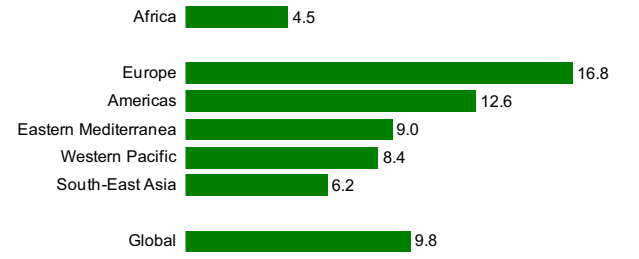
Source : WHO, 2013.

Figure 5.1.10 : Prevalence of raised total cholesterol** among adults aged 25 years or older (%) in 2008 in the African Region



Source : WHO, 2013.

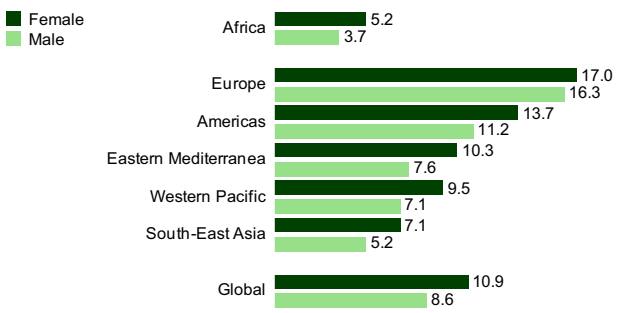
Figure 5.1.11 : Prevalence of raised total cholesterol among adults aged 25 years or older (%) in 2008 by WHO Region



**Percentage of defined population with total cholesterol ≥240 mg/dl (6.2 mmol/l).

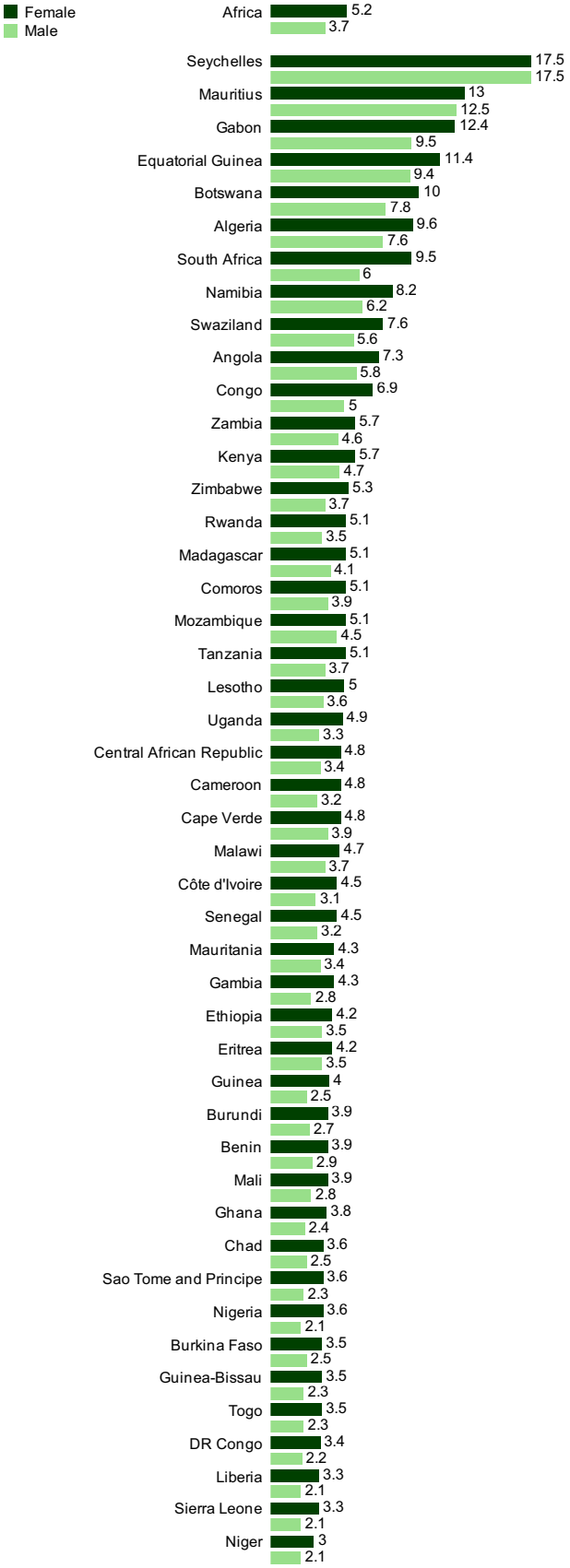
Source : WHO, 2013.

Figure 5.1.12 : Prevalence of raised total cholesterol among adults aged 25 years or older (%) in 2008 by WHO Region and sex



Source : WHO, 2013.

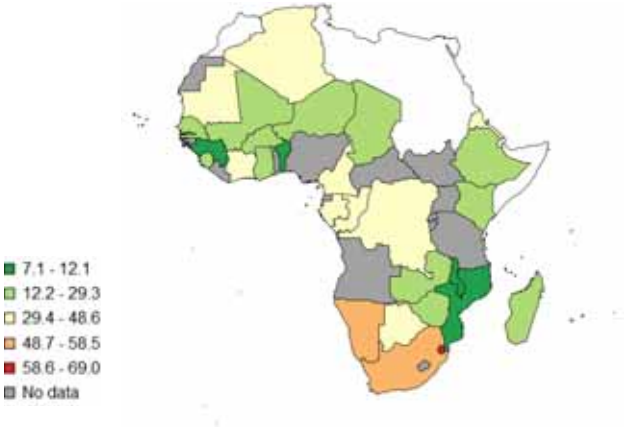
Figure 5.1.13 : Prevalence of raised total cholesterol among adults aged 25 years or older (%) in 2008 in the African Region, by sex



Countries of the African Region without data are not included in the chart.

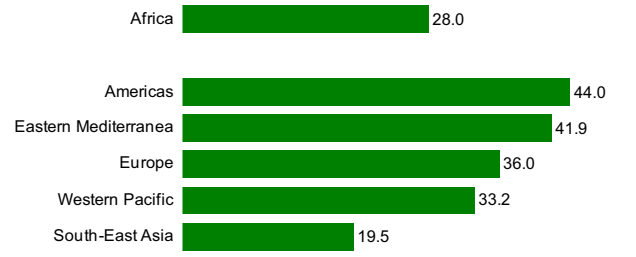
Source : WHO, 2013.

Figure 5.1.14 : Prevalence of physical inactivity among adults aged 15 years of age or older (%) in 2008 in the African Region



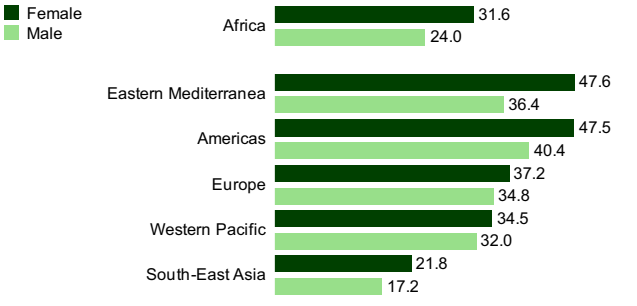
Source : WHO, 2013.

Figure 5.1.15 : Prevalence of physical inactivity among adults aged 15 years of age or older (%) in 2008 by WHO Region



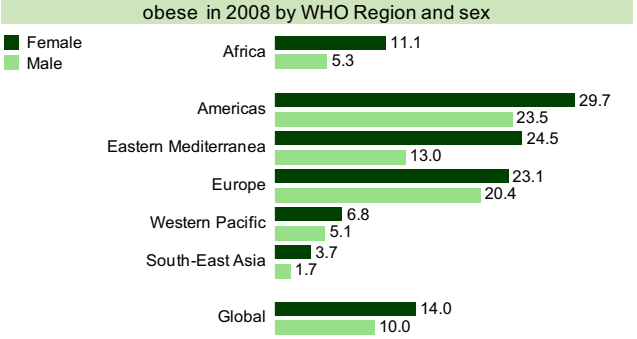
Source : WHO, 2013.

Figure 5.1.16 : Prevalence of physical inactivity among adults aged 15 years of age or older (%) in 2008 by WHO Region and sex



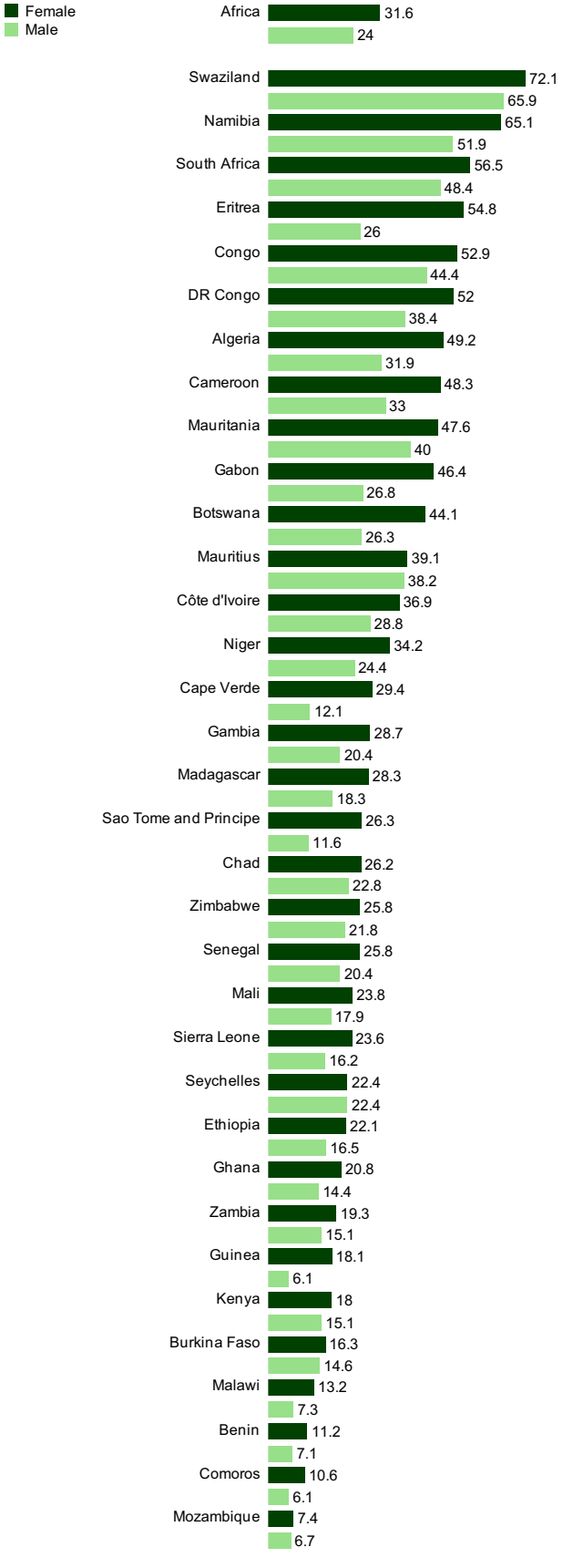
Source : WHO, 2013.

Figure 5.1.17 : Percentage of adults aged 20 years or older who are obese in 2008 by WHO Region and sex



Source : WHO, 2013.

Figure 5.1.18 : Prevalence of physical inactivity among adults aged 15 years of age or older (%) in 2008 in the African Region, by sex

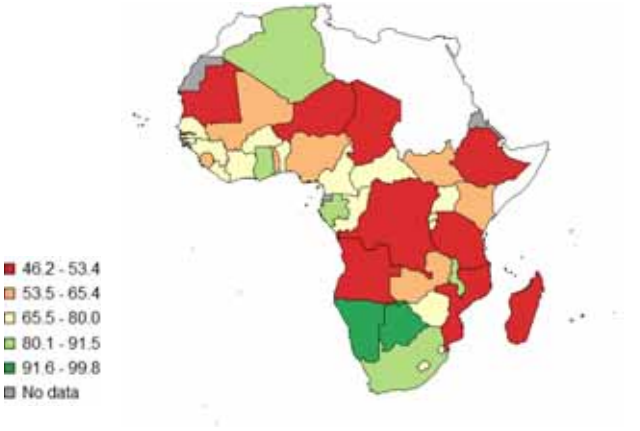


Countries of the African Region without data are not included in the chart.

Source : WHO, 2013.

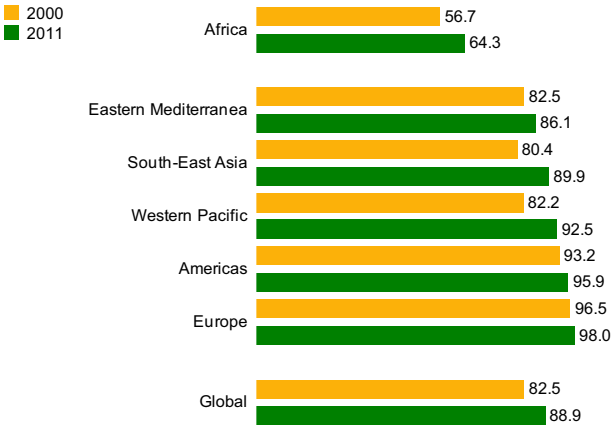
5.2. The physical environment

Figure 5.2.1 : Population using improved drinking-water sources (%) in 2011 in the African Region



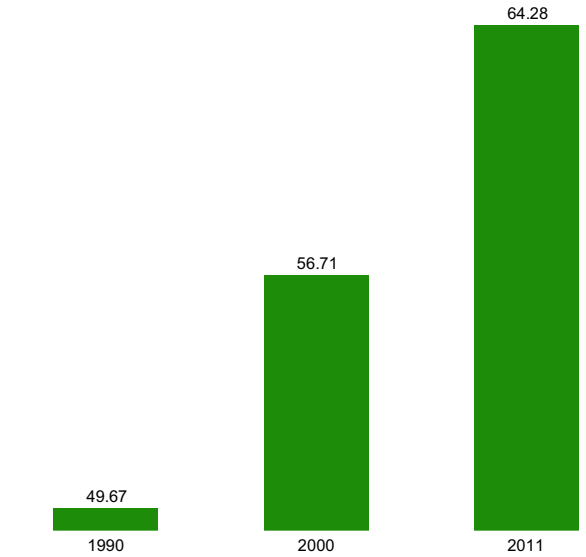
Source : WHO, 2013.

Figure 5.2.2 : Population using improved drinking-water sources (%) in 2000 and 2011 by WHO Region



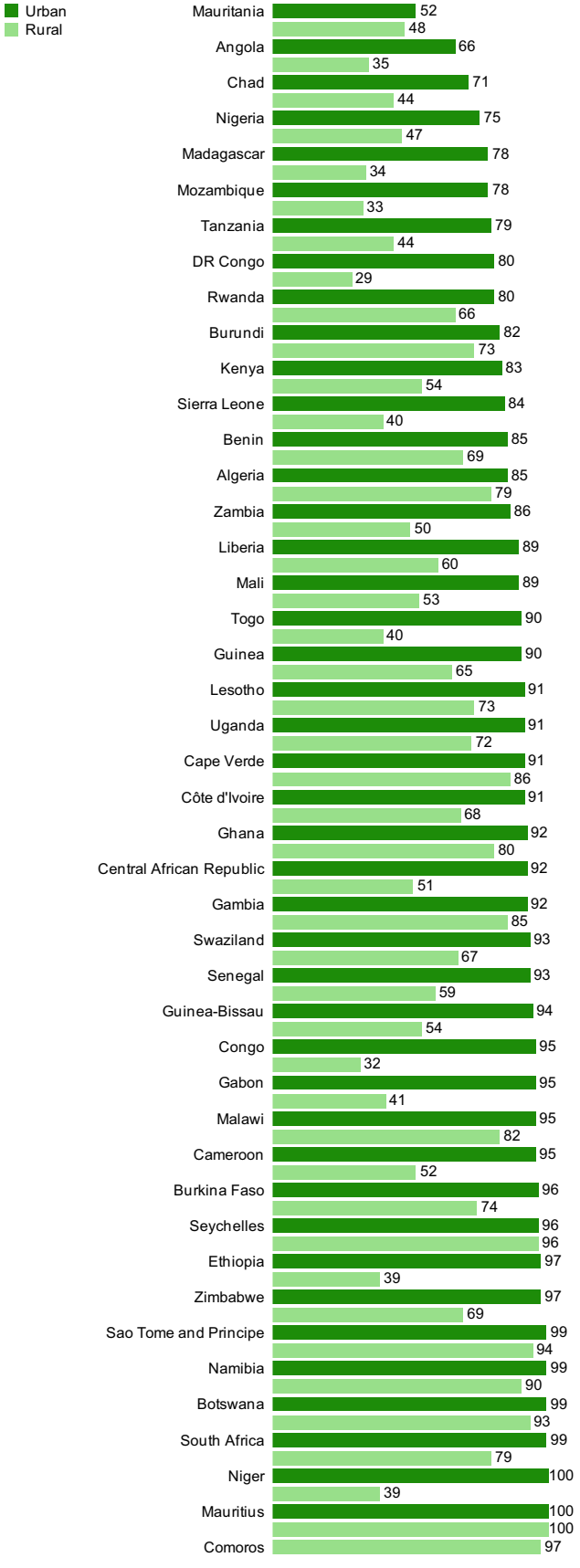
Source : WHO, 2013.

Figure 5.2.3 : Trend in population using improved drinking-water sources (%), 1990 to 2011, in the African Region



Source : WHO, 2013.

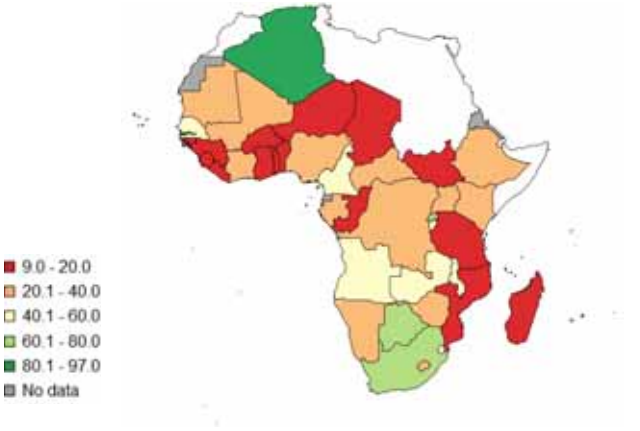
Figure 5.2.4 : Urban and rural population using improved drinking-water sources (%) in 2011 in the African Region



Countries of the African Region without data are not included in the chart.

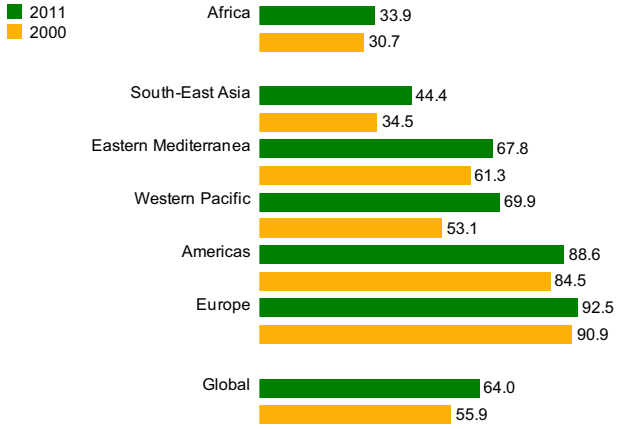
Source : WHO, 2013.

Figure 5.2.5 : Population using improved sanitation (%) in 2011 in the African Region



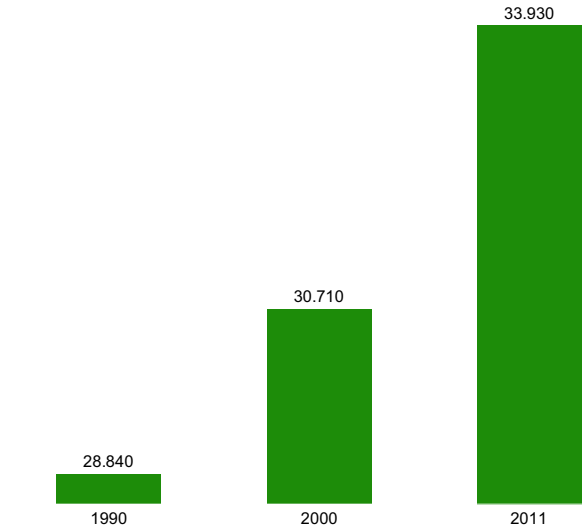
Source : WHO, 2013.

Figure 5.2.6 : Population using improved sanitation (%) in 2000 and 2011 by WHO Region



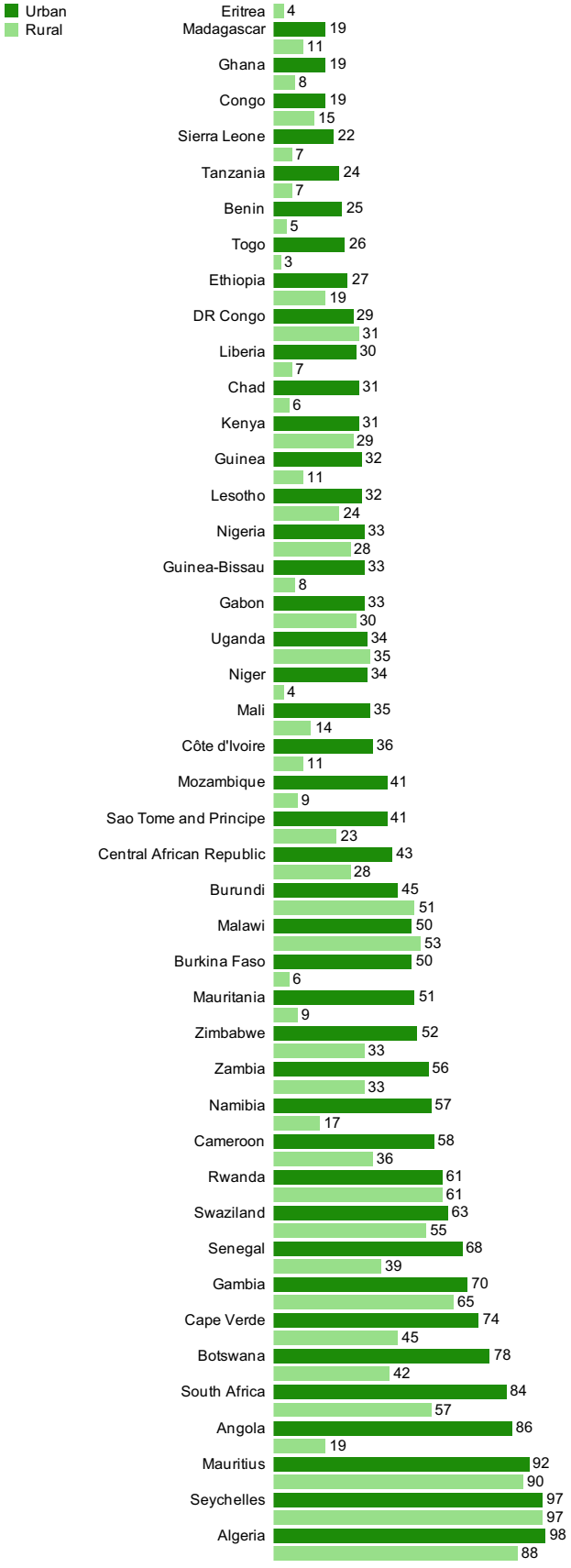
Source : WHO, 2013.

Figure 5.2.7 : Trend in population using improved sanitation (%), 1990 to 2011, in the African Region



Source : WHO, 2013.

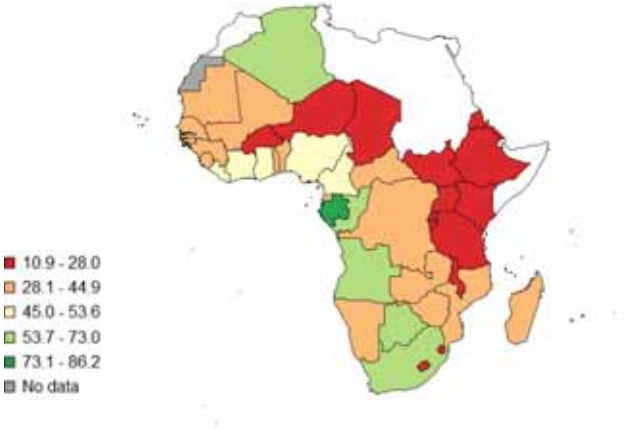
Figure 5.2.8 : Urban and rural population using improved sanitation (%) in 2011 in the African Region



Countries of the African Region without data are not included in the chart.

Source : WHO, 2013.

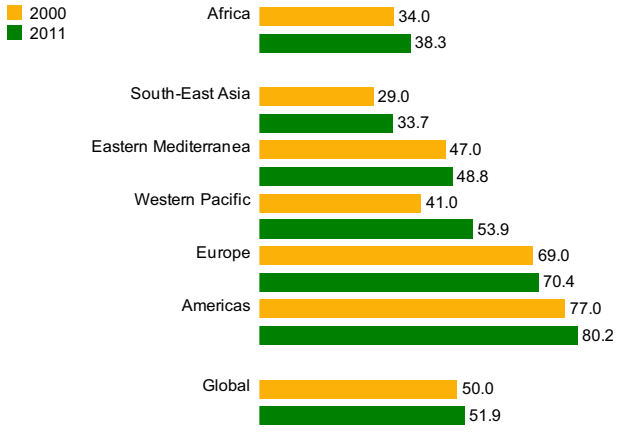
Figure 5.2.9 : Population living in urban areas (%) in 2011 in the African Region



Source : WHO, 2013.

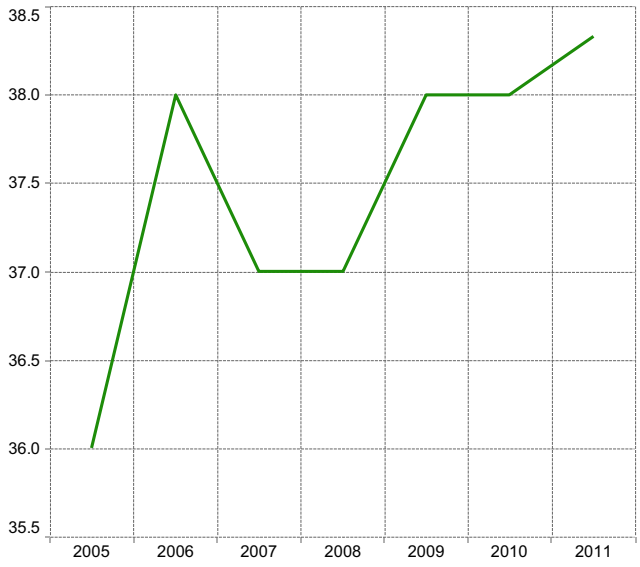
Cape Verde | Comoros | Mauritius | Sao Tome & Principe | Seychelles

Figure 5.2.10 : Population living in urban areas (%) in 2000 and 2011 by WHO Region



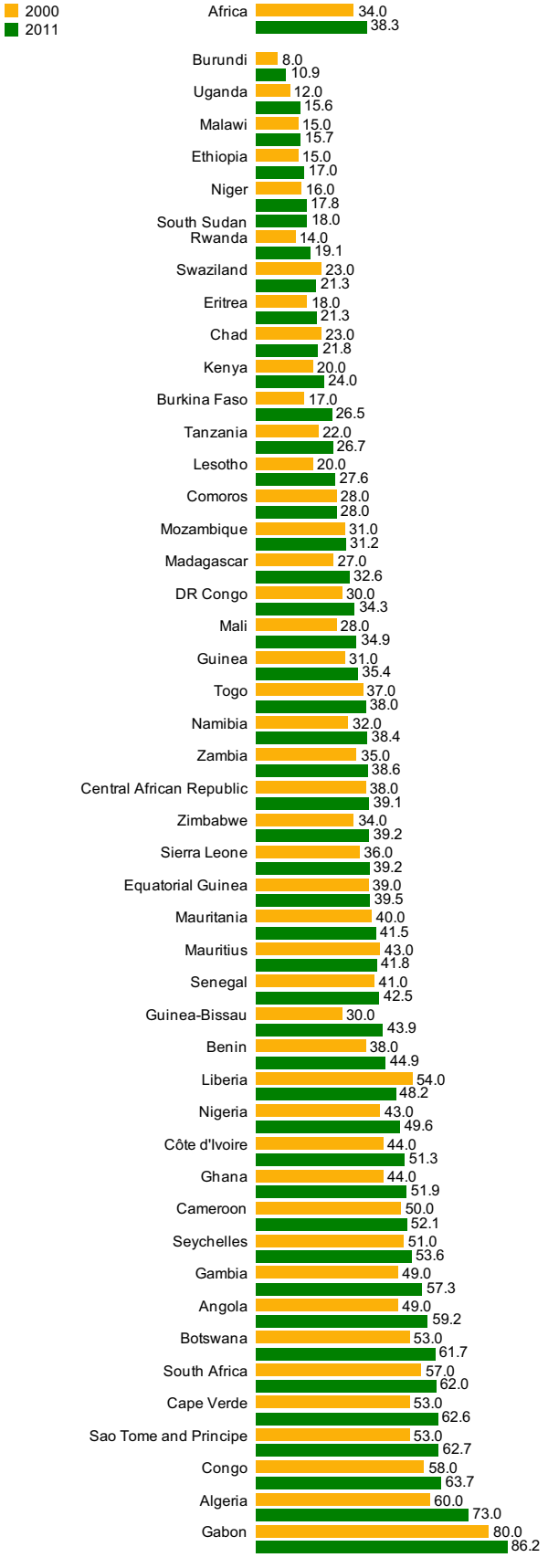
Source : WHO, 2013.

Figure 5.2.11 : Trend in population living in urban areas (%) in the African Region, 2005 to 2011



Source : WHO, 2013.

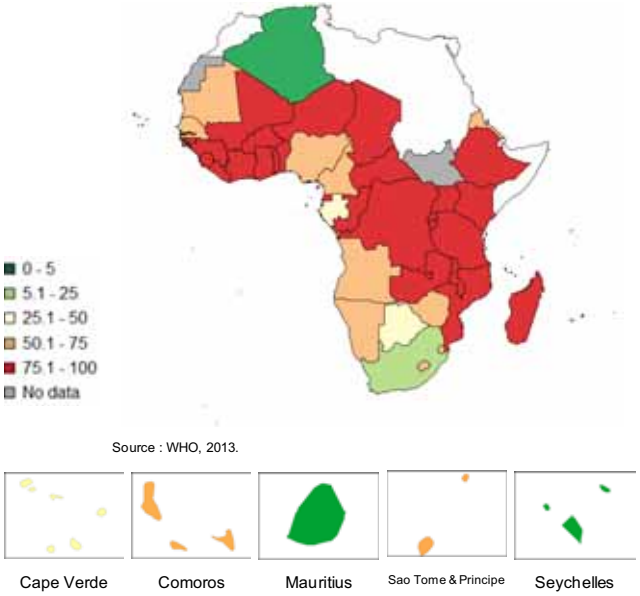
Figure 5.2.12 : Population living in urban areas (%) in 2011 and 2000 in the African Region



Countries of the African Region without data are not included in the chart.

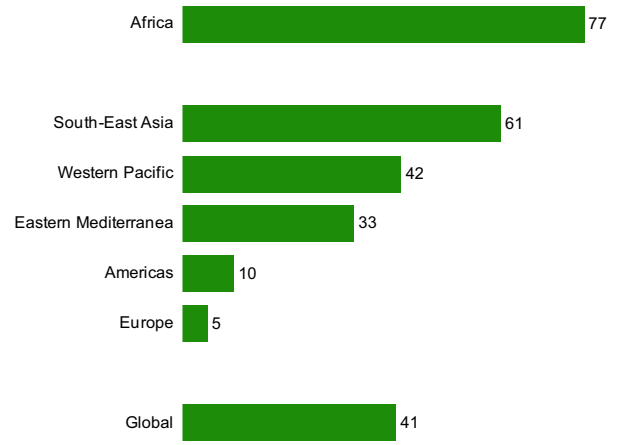
Source : WHO, 2013.

Figure 5.2.13 : Population using solid fuels (%) in 2010 in the African Region



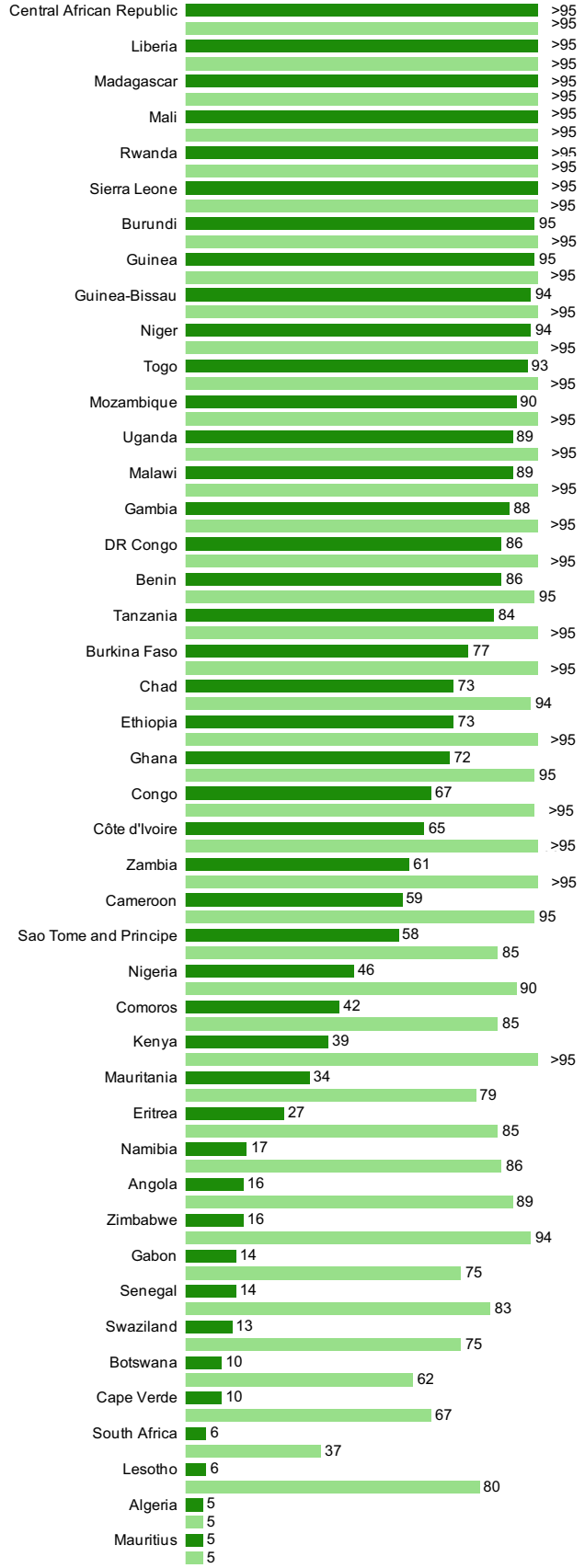
Source : WHO, 2013.

Figure 5.2.14 : Population using solid fuels (%) in 2010 by WHO Region



Source : WHO, 2013.

Figure 5.2.15 : Urban and rural population using solid fuels in 2010 in the African Region

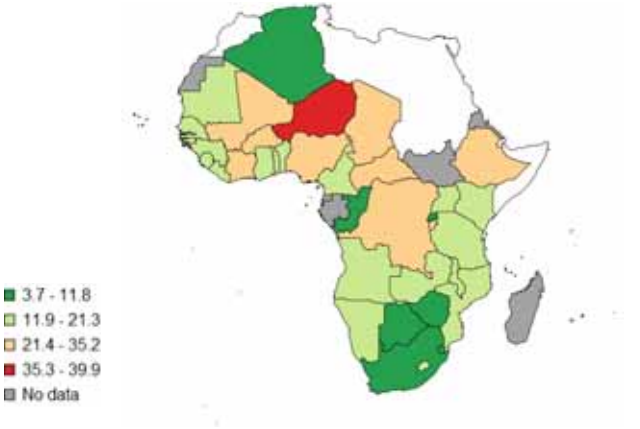


Countries of the African Region without data are not included in the chart.

Source : WHO, 2013.

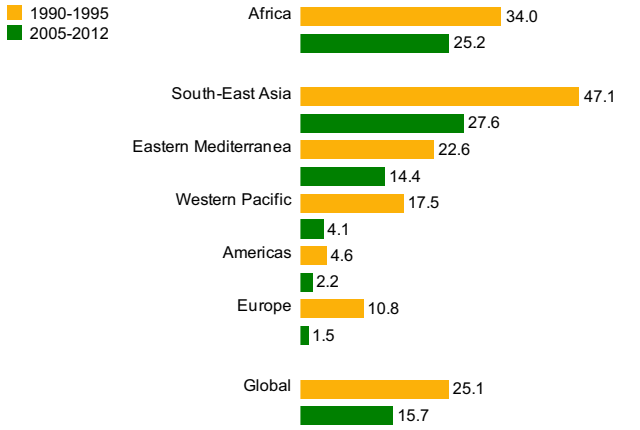
5.3.Food and nutrition

Figure 5.3.1 : Children aged under 5 years underweight* (%) in 2005-2012 in the African Region



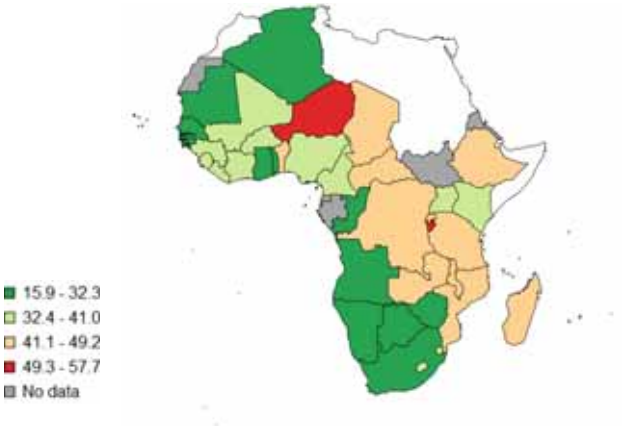
Source : WHO, 2013.

Figure 5.3.2 : Children aged under 5 years underweight (%) in 1990-1995 and 2005-2012 by WHO Region



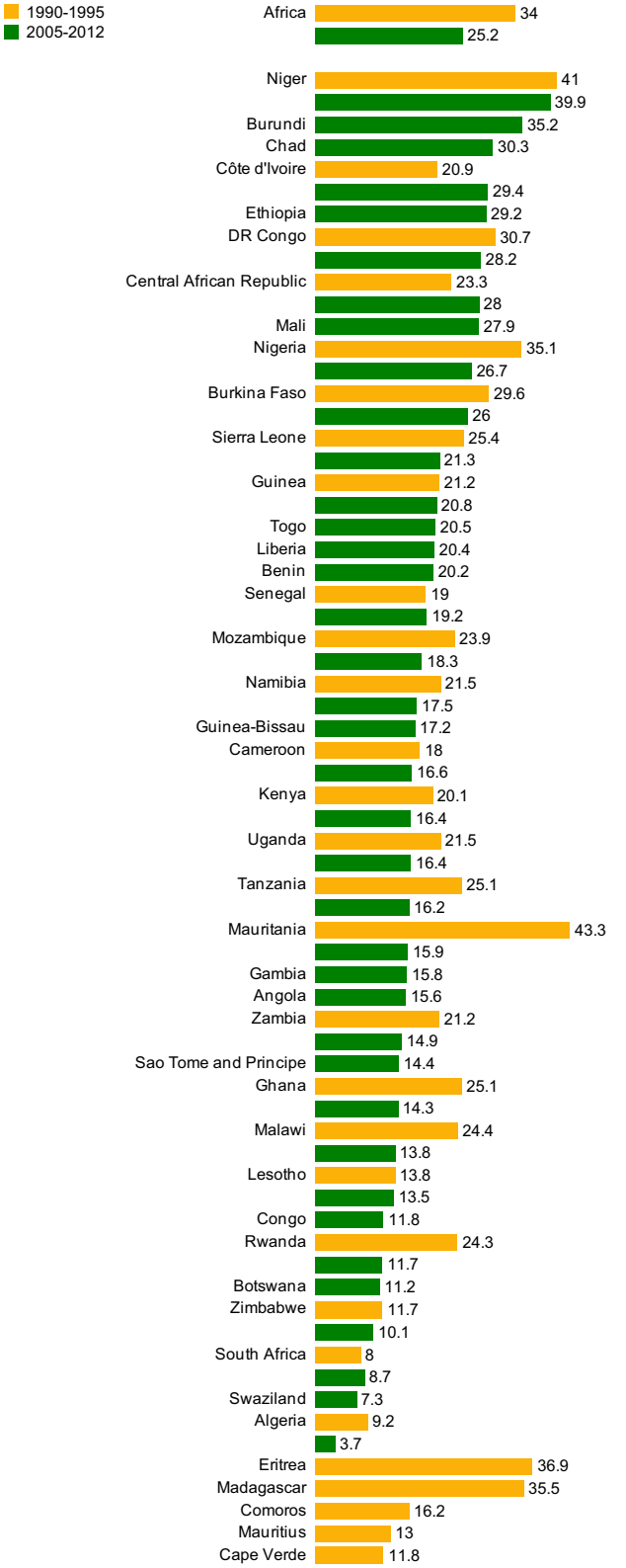
Source : WHO, 2013.

Figure 5.3.4 : Children aged under 5 years stunted** (%) in 2005-2012 in the African Region



Source : WHO, 2013.

Figure 5.3.3 : Children aged under 5 years underweight (%) in 1990-1995 and 2005-2012 in the African Region

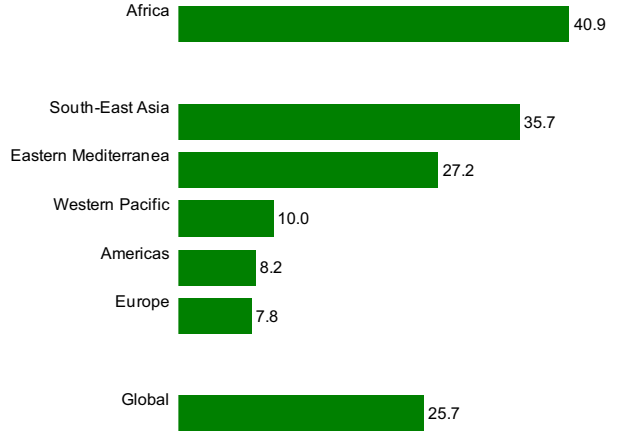


Countries of the African Region without data are not included in the chart.

*Percentage of children underweight describes how many children under 5 years of age have a weight-for-age below minus two standard deviations of the National Center for Health Statistics (NCHS)/WHO reference median.
**Percentage of children stunted describes how many children under 5 years of age have a height-for-age below minus two standard deviations of the NCHS/WHO reference median.

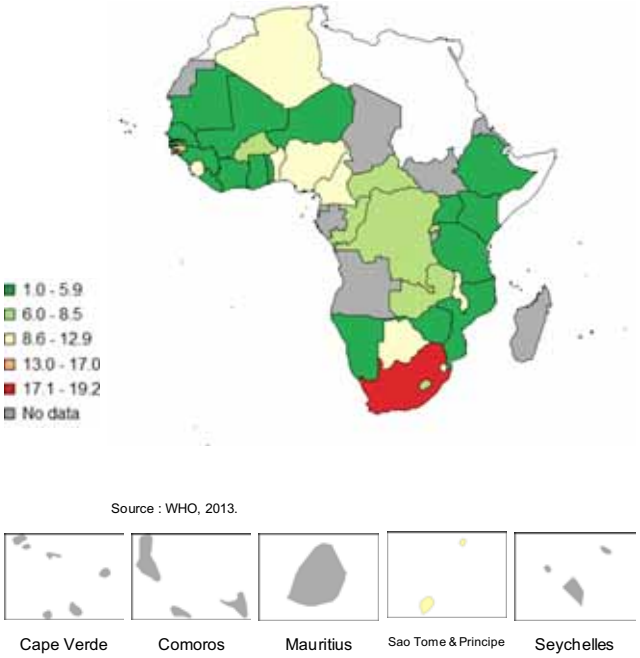
Source : WHO, 2013.

Figure 5.3.5 : Children aged under 5 years stunted (%) in 2005-2012 by WHO Region



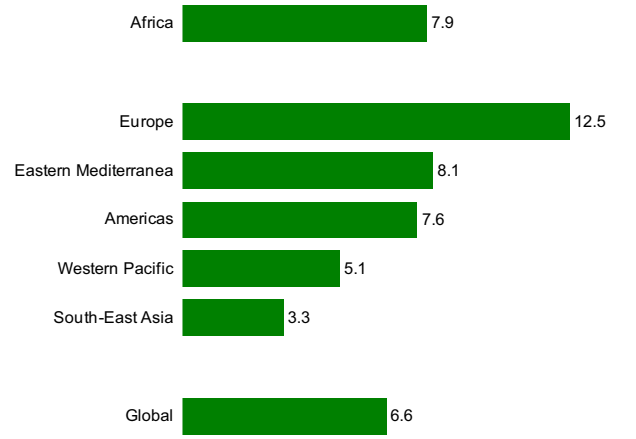
Source : WHO, 2013.

Figure 5.3.7 : Children aged under 5 years overweight (%) in 2005-2012 in the African Region



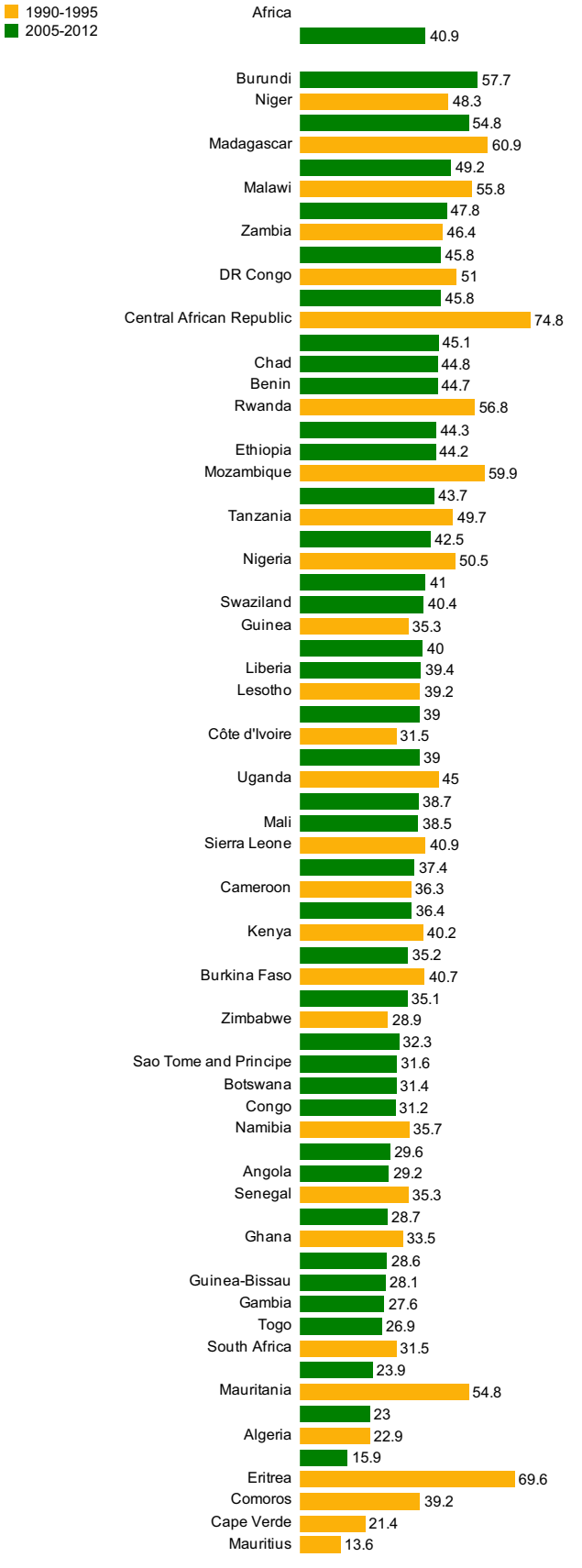
Source : WHO, 2013.

Figure 5.3.8 : Children aged under 5 years overweight (%) in 2005-2012 by WHO Region



Source : WHO, 2013.

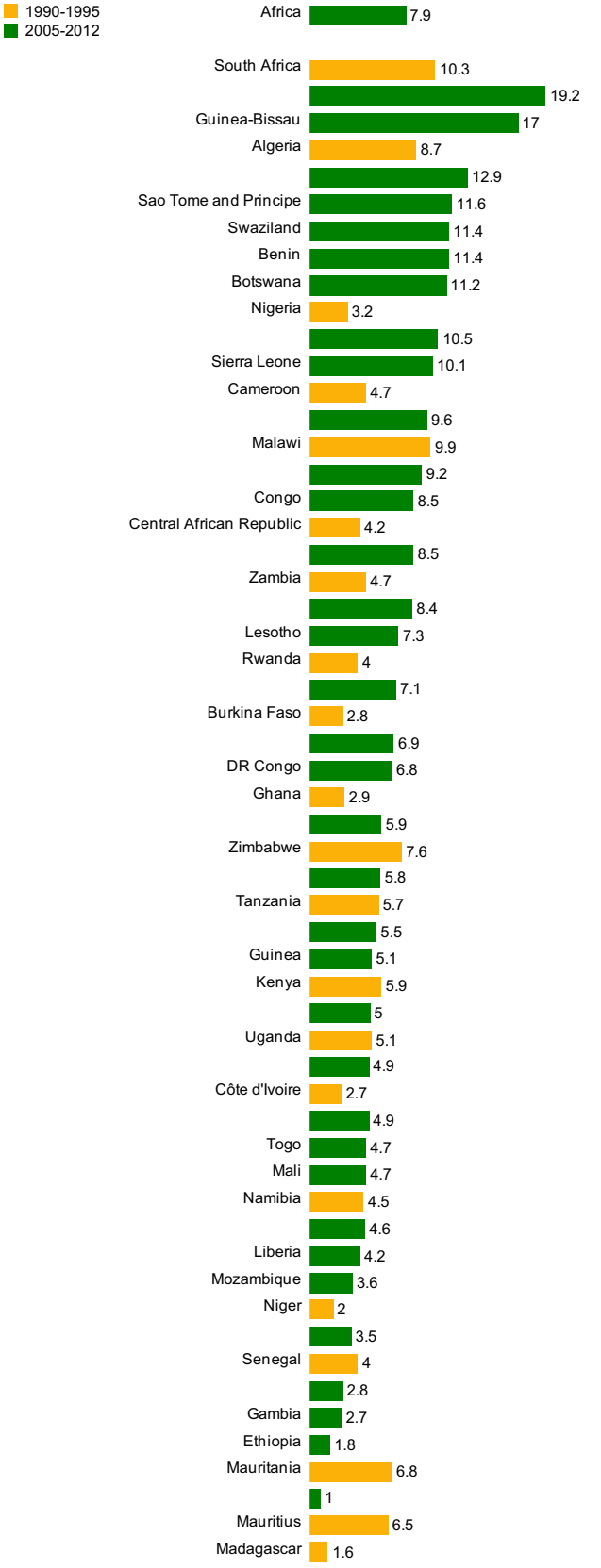
Figure 5.3.6 : Children aged under 5 years stunted (%) in 1990-1995 and 2005-2012 in the African Region



Countries of the African Region without data are not included in the chart.

Source : WHO, 2013.

Figure 5.3.9 : Children aged under 5 years overweight* (%) in 1990-1995 and 2005-2012 in the African Region

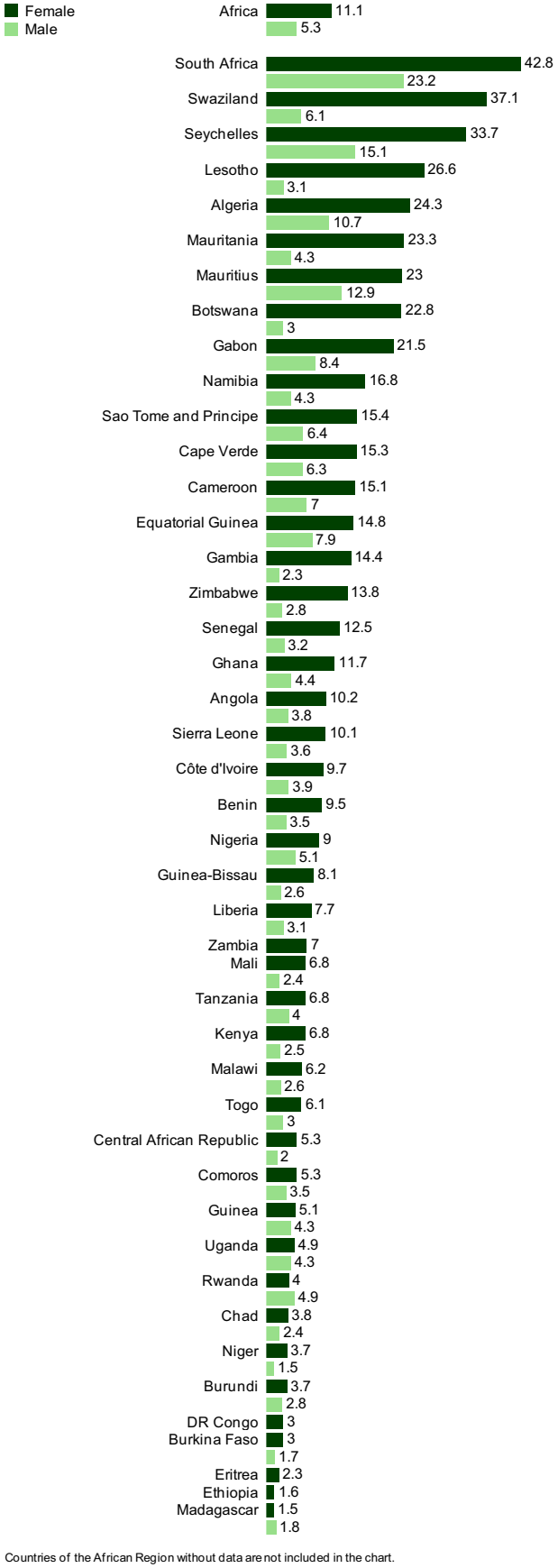


Countries of the African Region without data are not included in the chart.

*Percentage of children overweight describes how many children under 5 years of age have a weight-for-height above two standard deviations of the NCHS/WHO reference median.

Source : WHO, 2013.

Figure 5.3.10 : Percentage of adults aged 20 years or older who are obese in 2008 in the African Region



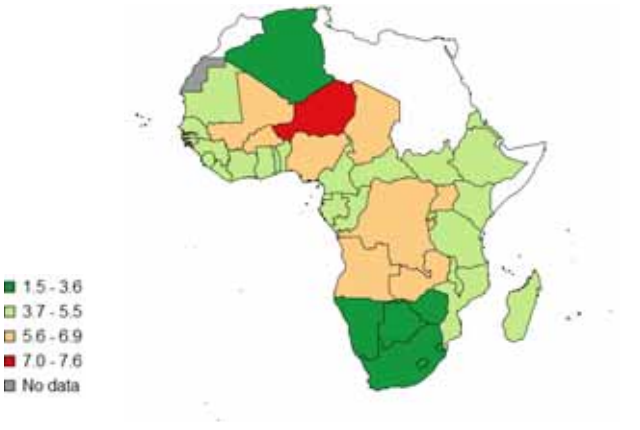
Countries of the African Region without data are not included in the chart.

Source : WHO, 2013.

5.4.Social determinants

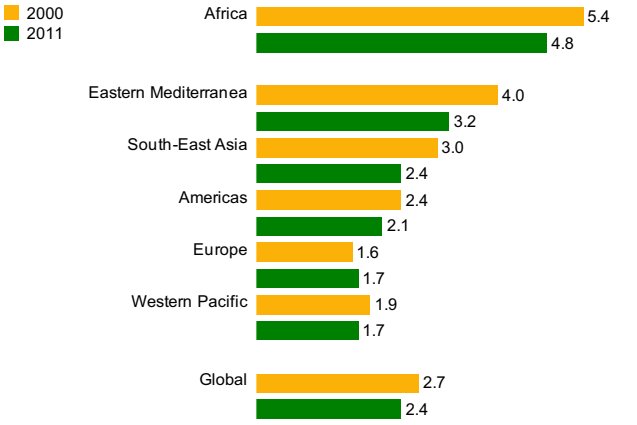
5.4.1.Demography

Figure 5.4.1.1 : Total fertility rate (average number of children) per woman in 2012 in the African Region



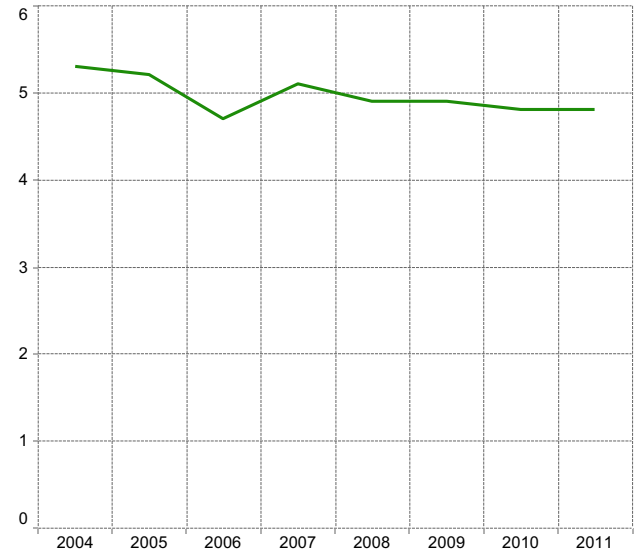
Source : WHO, 2013.

Figure 5.4.1.2 : Total fertility rate per woman in 2000 and 2011 by WHO Region



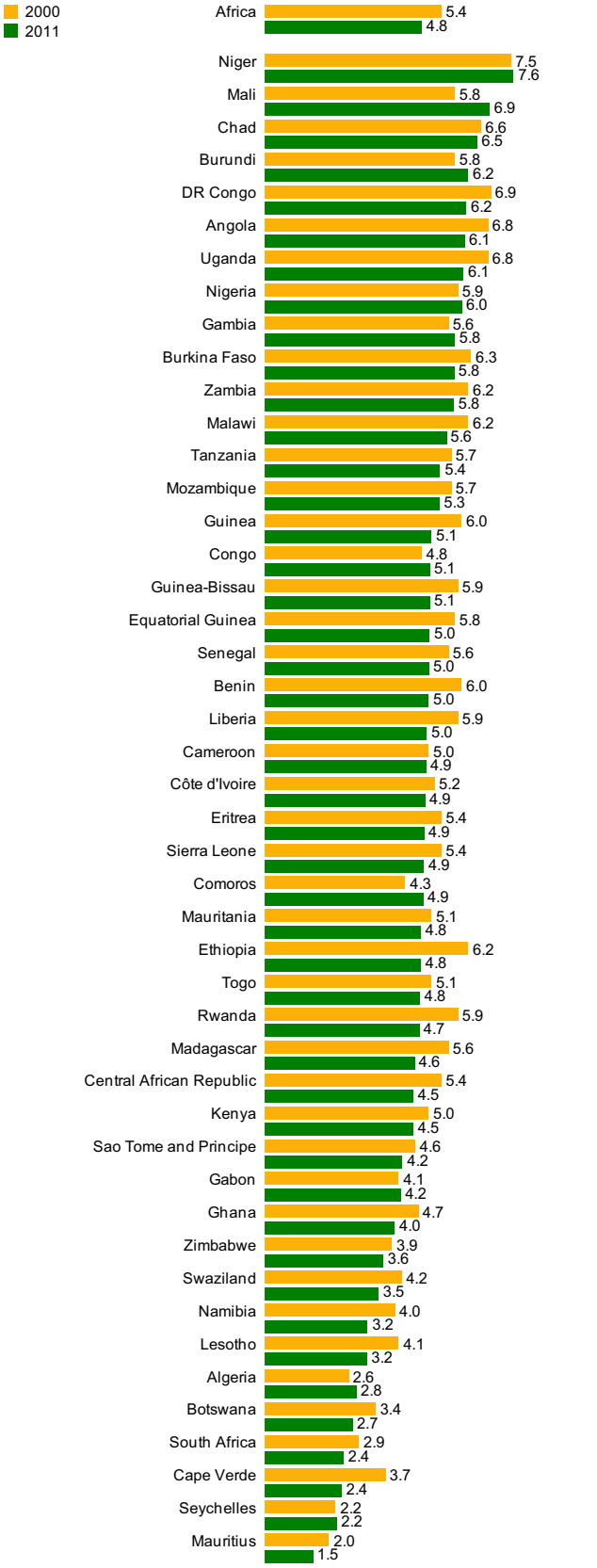
Source : WHO, 2013.

Figure 5.4.1.3 : Trend in total fertility rate per woman in the African Region, 2004 to 2011



Source : WHO, 2013.

Figure 5.4.1.4 : Total fertility rate per woman in 2000 and 2011 in the African Region



Countries of the African Region without data are not included in the chart.

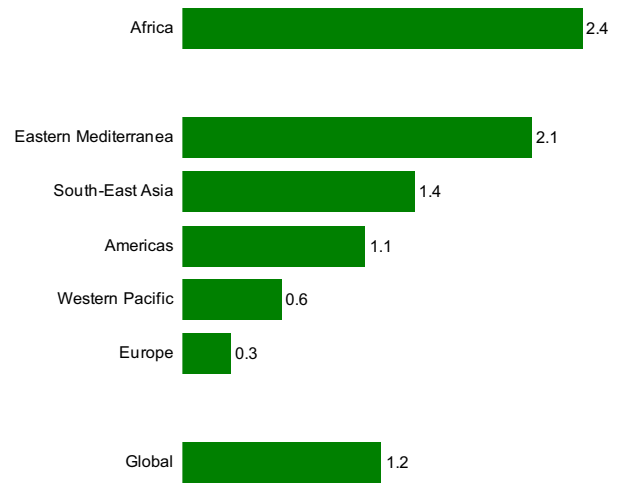
Source : WHO, 2013.

Figure 5.4.1.5 : Annual growth rate (in %) of population between 2001 and 2011 in the African Region

Source : WHO, 2013.

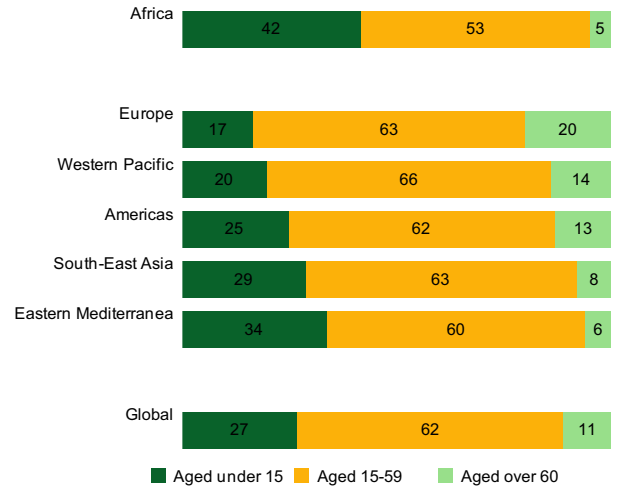
Cape Verde | Comoros | Mauritius | Sao Tome & Principe | Seychelles

Figure 5.4.1.6 : Annual growth rate (in %) of population between 2001 and 2011 by WHO Region



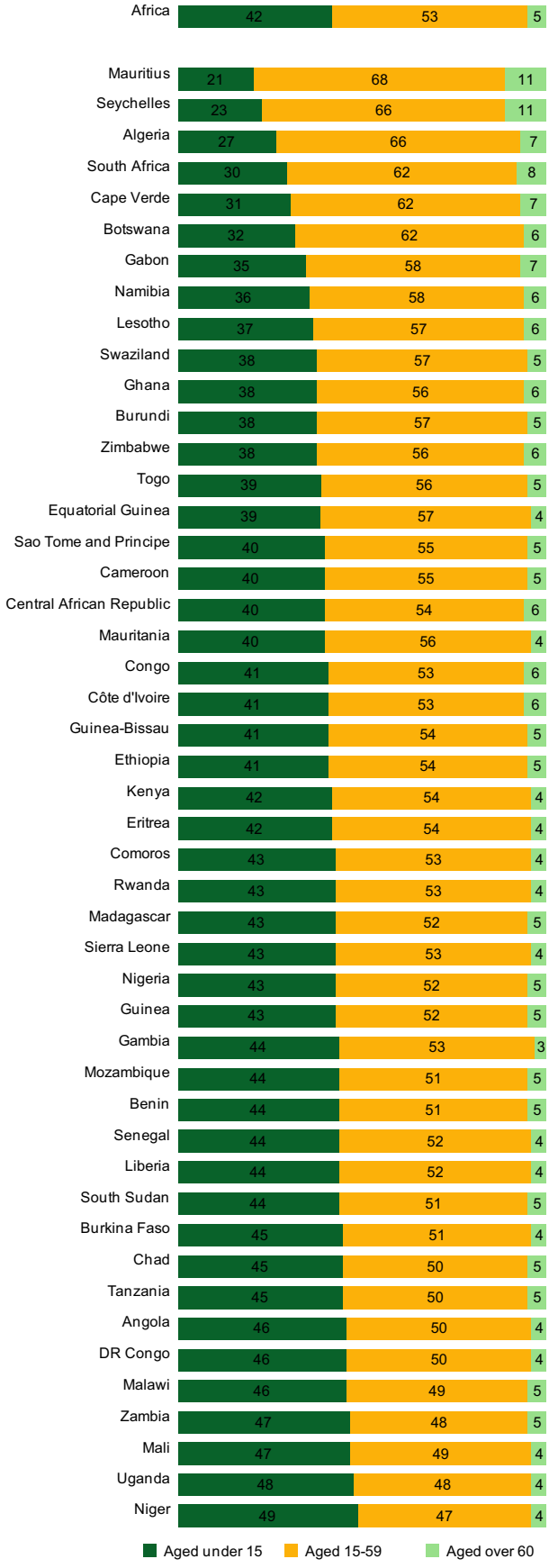
Source : WHO, 2013.

Figure 5.4.1.7 : Age distribution of the population (%) in 2011 by WHO Region



Source : WHO, 2013.

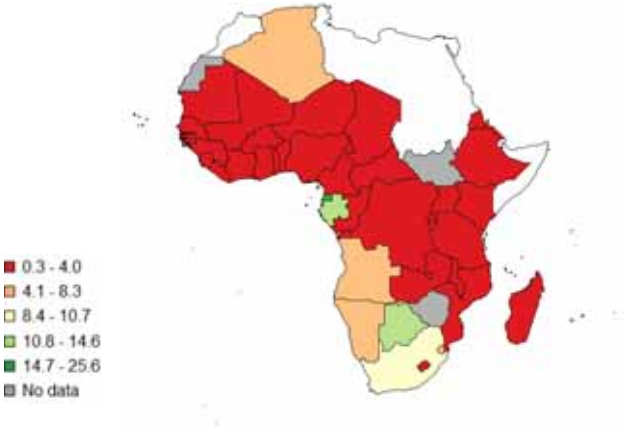
Figure 5.4.1.8 : Age distribution of the population (%) in 2011 in the African Region



Source : WHO, 2013.

5.4.2. Resources and infrastructure

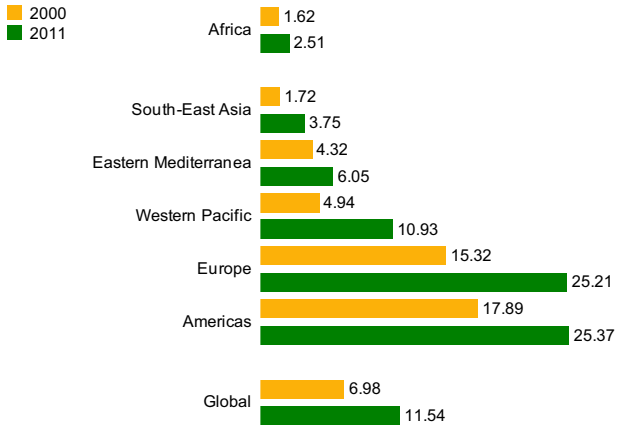
Figure 5.4.2.1 : Gross national income* per capita (PPP** int. $) (in thousands) in 2011 in the African Region



Source : WHO, 2013.

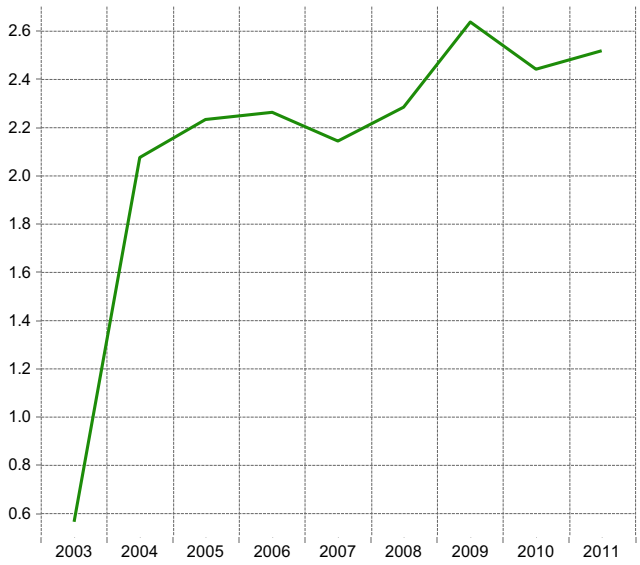
Cape Verde | Comoros | Mauritius | Sao Tome & Principe | Seychelles

Figure 5.4.2.2 : Gross national income per capita (PPP int. $) (in thousands) in 2000 and 2011 by WHO Region



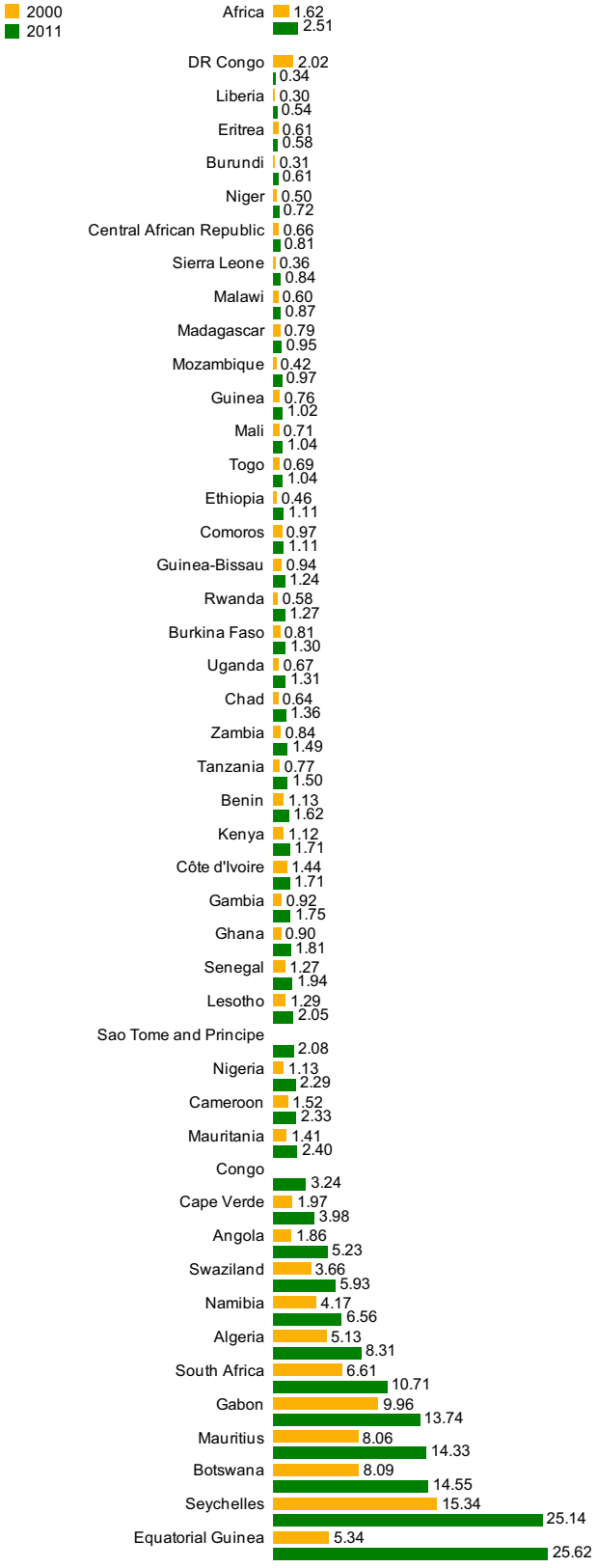
Source : WHO, 2013.

Figure 5.4.2.3 : Trend in gross national income per capita (PPP int. $) (in thousands) in the African Region, 2003 to 2011



Source : WHO, 2013.

Figure 5.4.2.4 : Gross national income per capita (PPP int. $) (in thousands) in 2000 and 2011 in the African Region

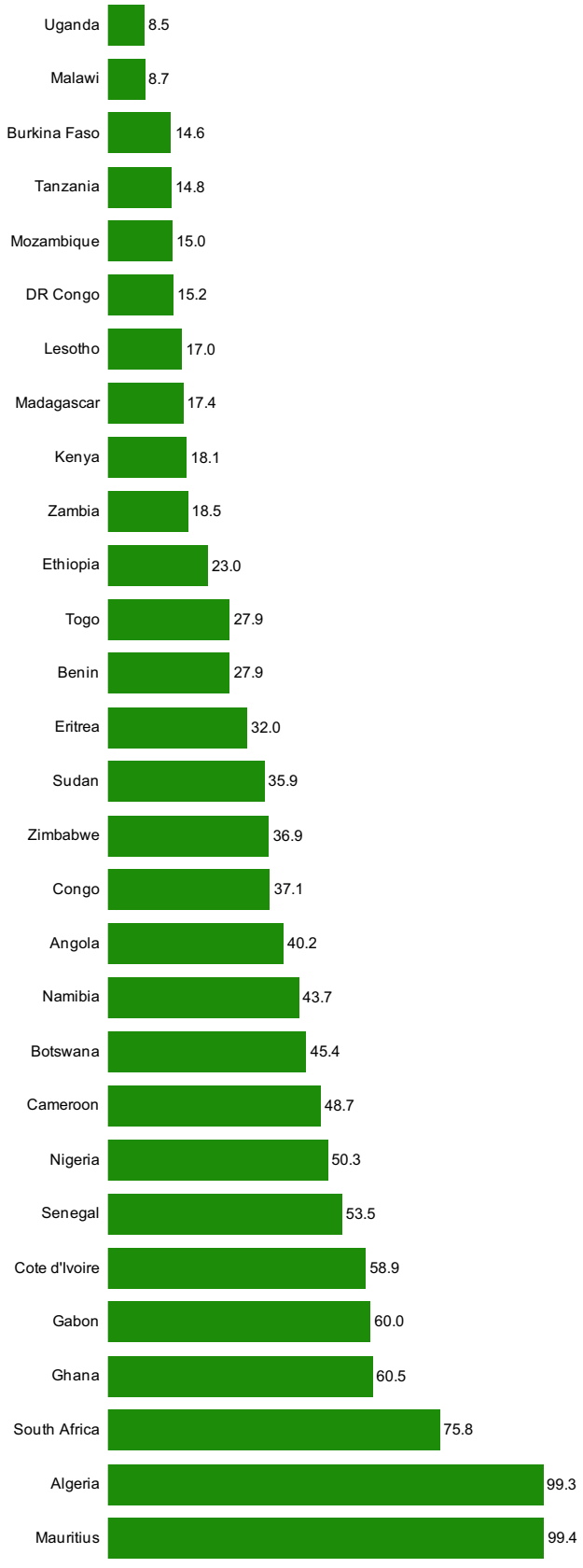


Countries of the African Region without data are not included in the chart.

*Gross national income (GNI) is the sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad. GNI per capita is GNI divided by mid-year population.
** Purchasing Power Parity

Source : WHO, 2013.

Figure 5.4.2.5 : Electrification rate* in 2010 in the African Region

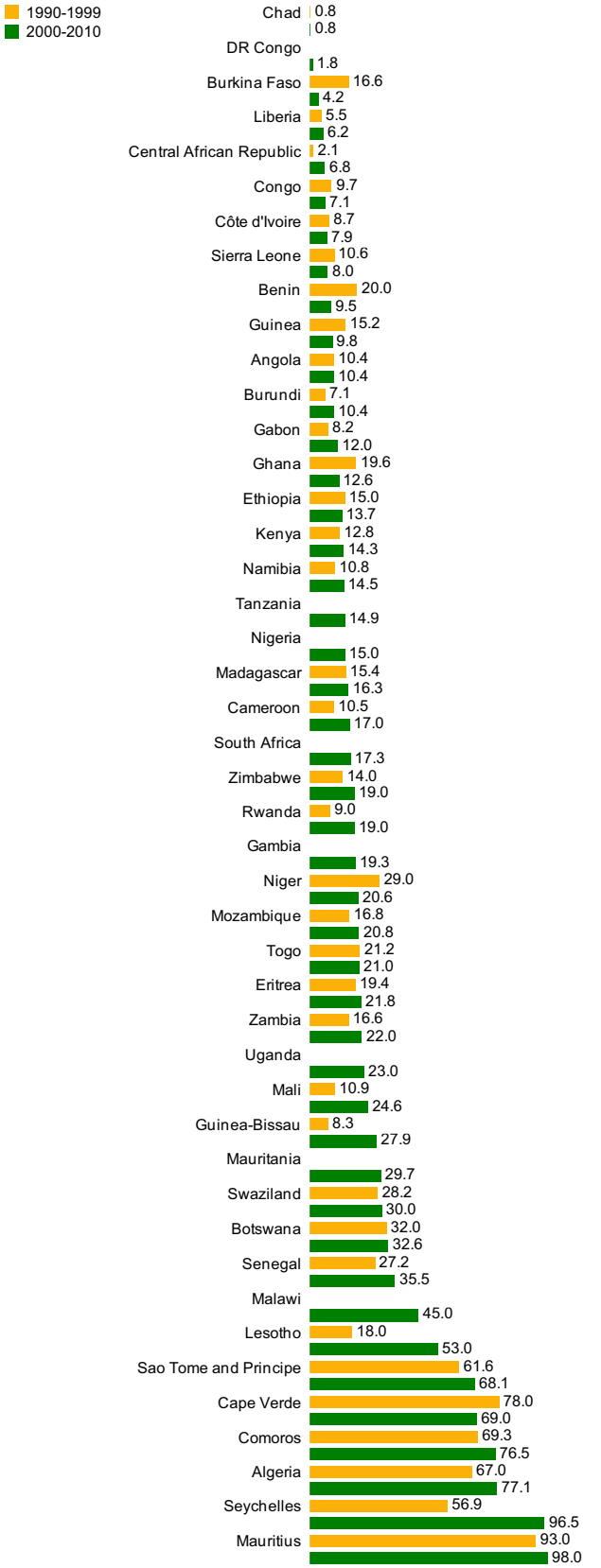


Countries of the African Region without data are not included in the chart.

Source: IEA, 2012

*Access to electricity (electrification rate) is defined as the percentage of households with an electricity connection.

Figure 5.4.2.6 : Paved roads* as percentage of all roads in 1990-1999 and 2000-2010 in the African Region

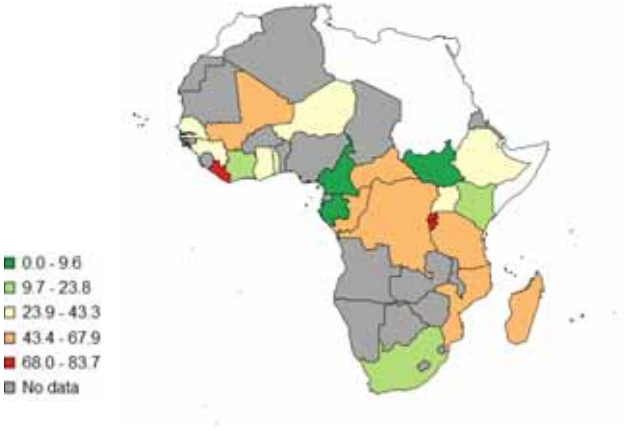


Countries of the African Region without data are not included in the chart.

*Paved roads are those surfaced with crushed stone (macadam) and hydrocarbon binder or bituminized agents, with concrete, or with cobblestones, as a percentage of all the country's roads, measured in length.
Source : World Bank, 2013

5.4.3. Poverty and income inequality

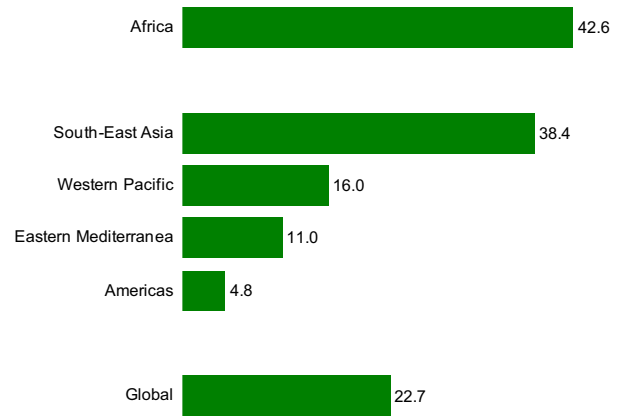
Figure 5.4.3.1 : Percentage of the population living under $1 (PPP* int. $) a day (i.e in absolute poverty) in 2005-2008 in the African Region



Source : WHO, 2013.

Cape Verde | Comoros | Mauritius | Sao Tome & Principe | Seychelles

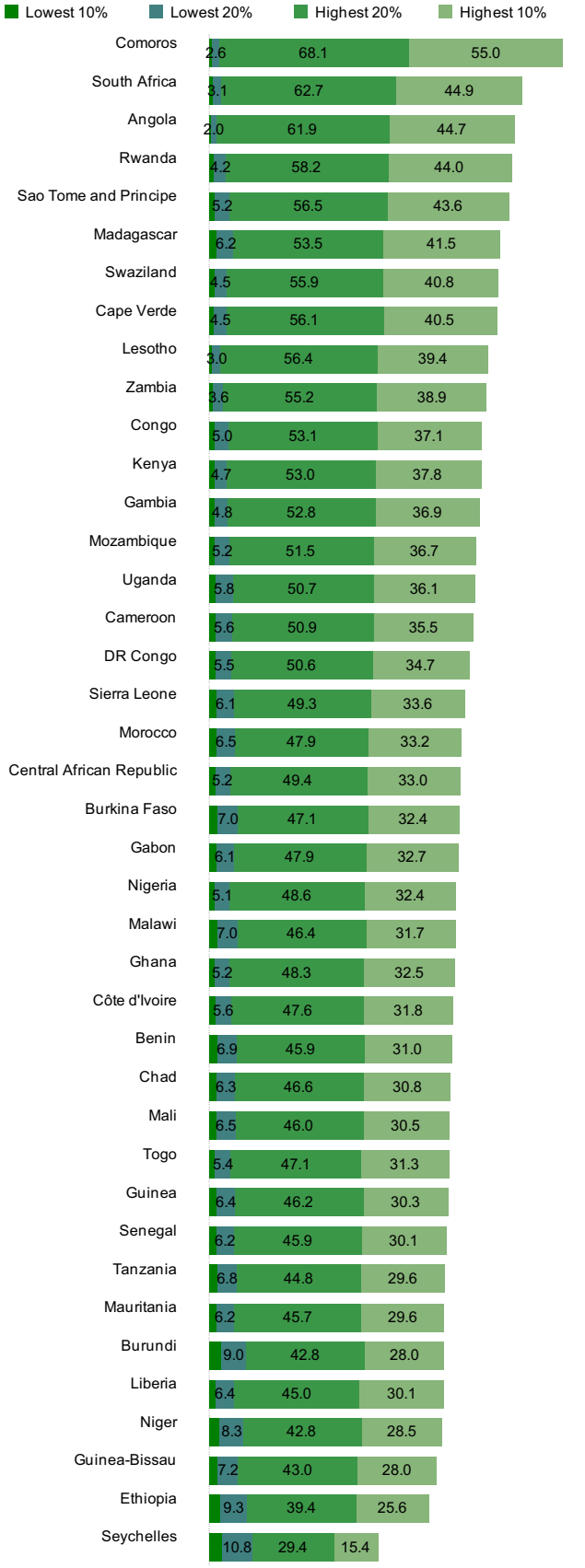
Figure 5.4.3.2 : Percentage of the population living under $1 (PPP int. $) a day (i.e in absolute poverty) in 2005-2008 by WHO Region



Source : WHO, 2013.

* Purchasing Power Parity

Figure 5.4.3.3 : Share of incomes by lowest and highest section of the population in 2000-2009 in the African Region

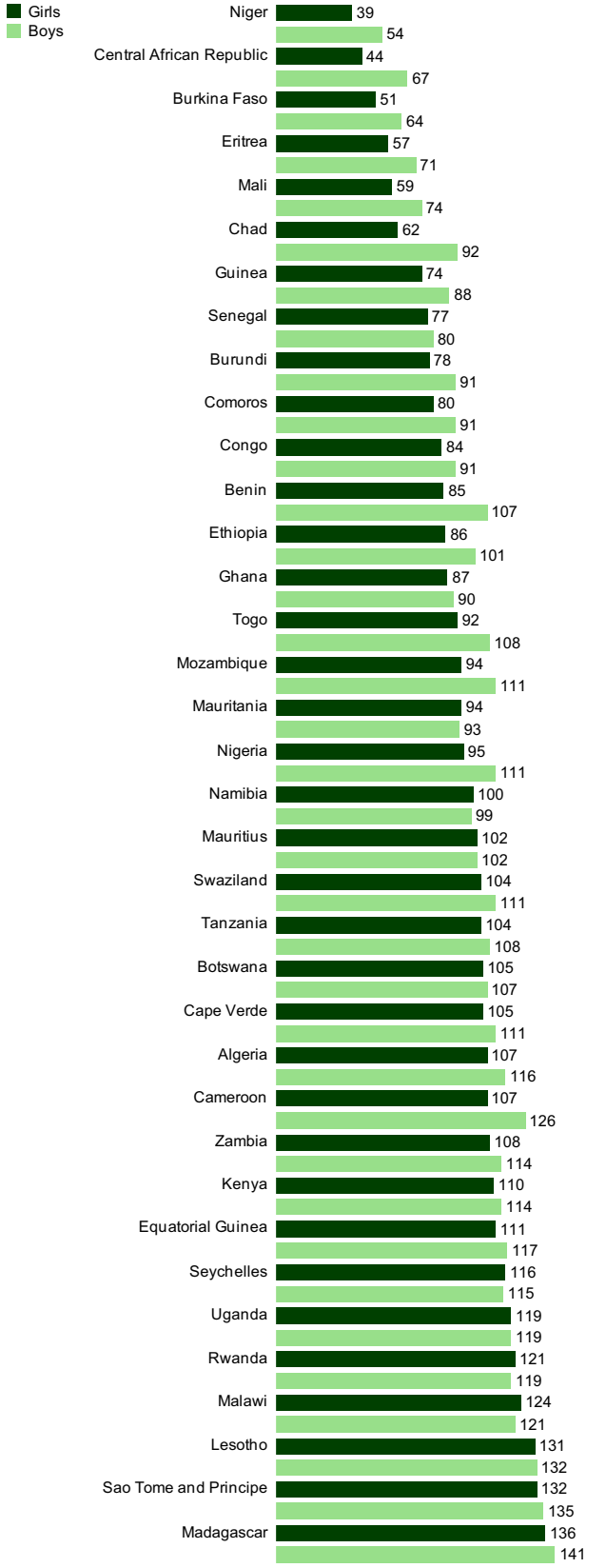


Countries of the African Region without data are not included in the chart.

Source : World Bank, 2012

5.4.4. Gender equity

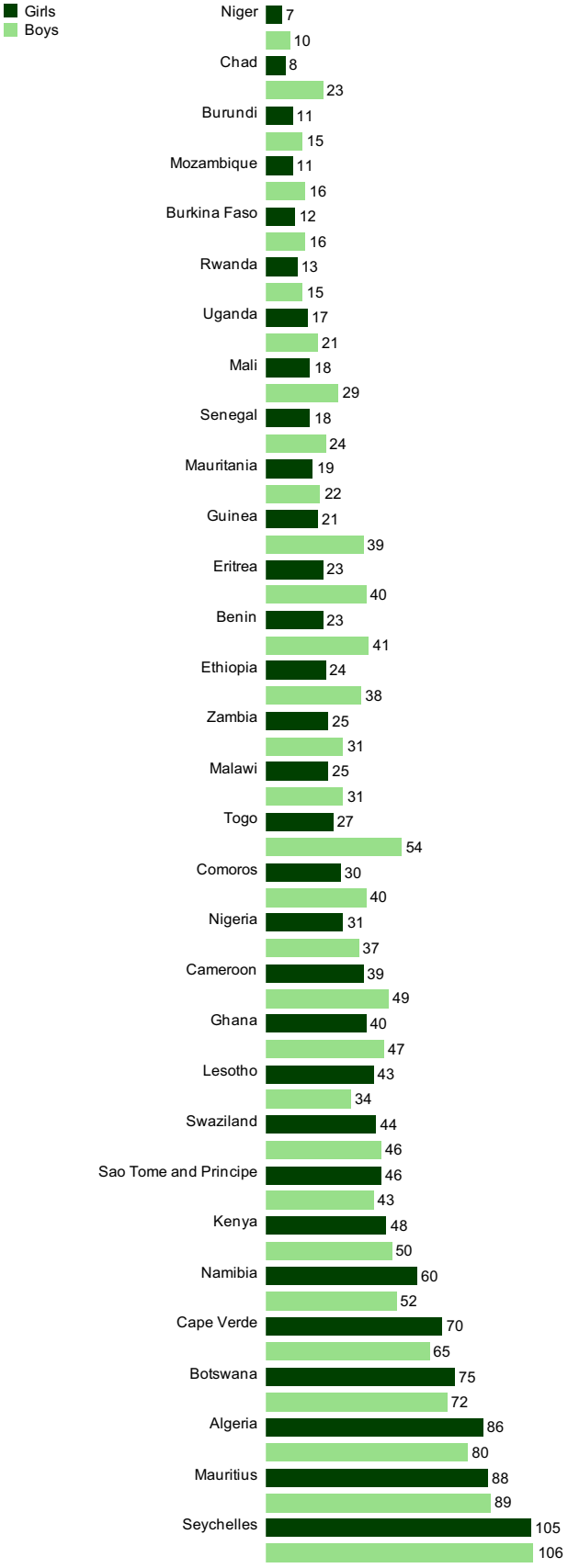
Figure 5.4.4.1 : Female and male gross enrolment ratio* in primary education in 2005 in the African Region



Countries of the African Region without data are not included in the chart.

*Number of students enrolled in primary, secondary and tertiary levels of education, regardless of age, as percentage of the population of official school age for the three levels. The gross enrolment ratio can be greater than 100% as a result of grade repetition and entry at ages younger or older than the typical age at that grade level (UNDP definition).
Source: UNSD, August 2013.

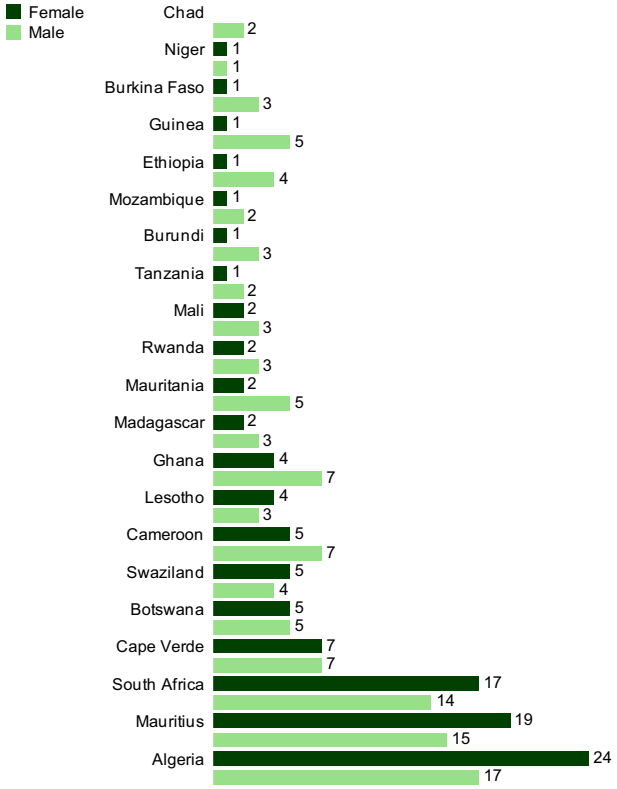
Figure 5.4.4.2 : Female and male gross enrolment ratio in secondary education in 2005 in the African Region



Countries of the African Region without data are not included in the chart.

Source: UNSD, August 2013.

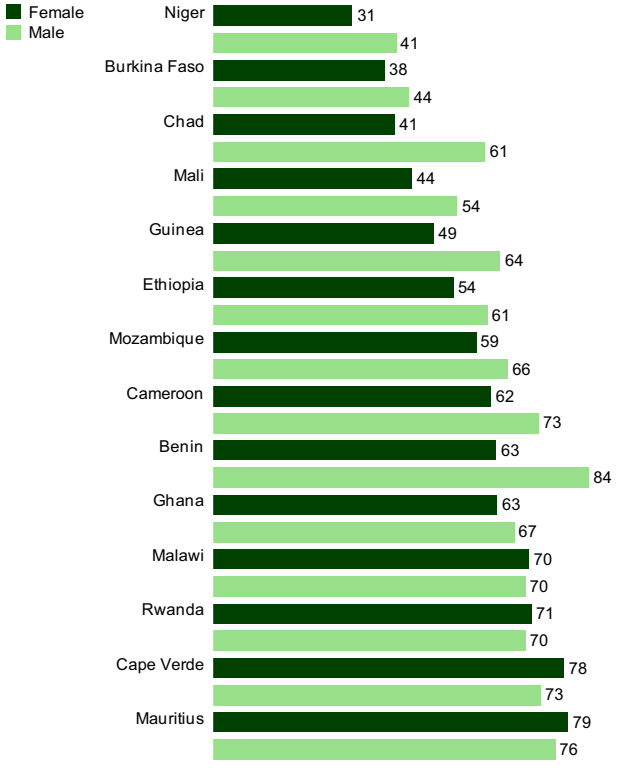
Figure 5.4.4.3 : Female and male gross enrolment ratio in tertiary education in 2005 in the African Region



Countries of the African Region without data are not included in the chart.

Source: UNSD, August 2013.

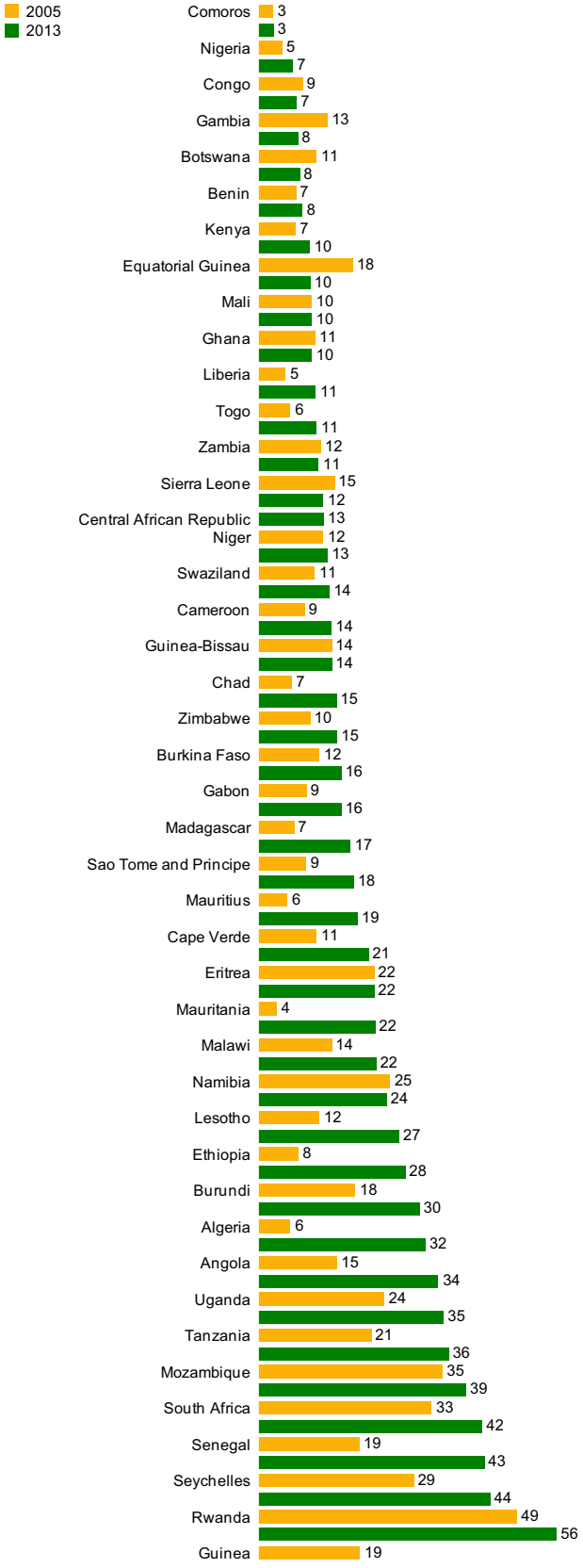
Figure 5.4.4.4 : Percentage of female and male combined gross enrolment ratio for primary-secondary-tertiary education in 2005 in the African Region



Countries of the African Region without data are not included in the chart.

Source: UNSD, August 2013.

Figure 5.4.4.5 : Percentage of seats* held by women in national parliaments in 2005 and 2013 in the African Region

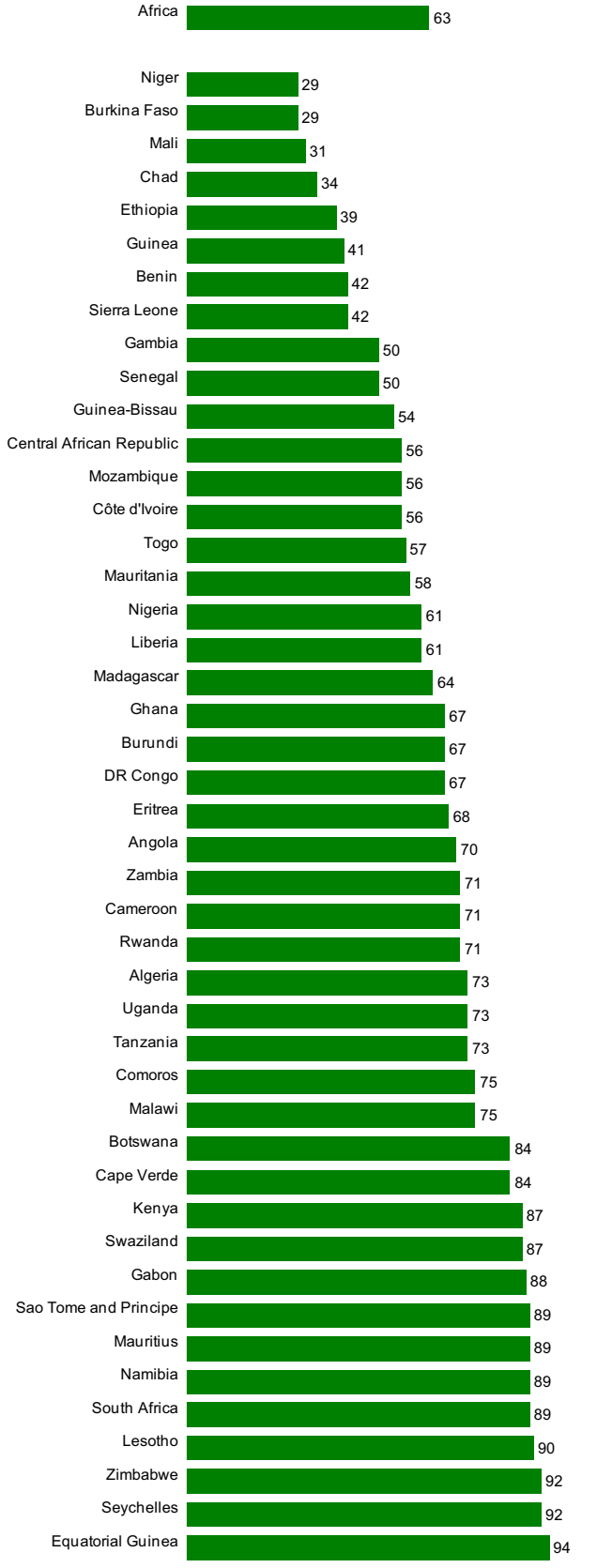


Countries of the African Region without data are not included in the chart.

*Number of seats held by women expressed as a percentage of all occupied seats. Women's representation in parliaments is one aspect of women's opportunities in political and public life, and it is therefore linked to women's empowerment.
Source: UNSD, August 2013.

5.4.5. Education

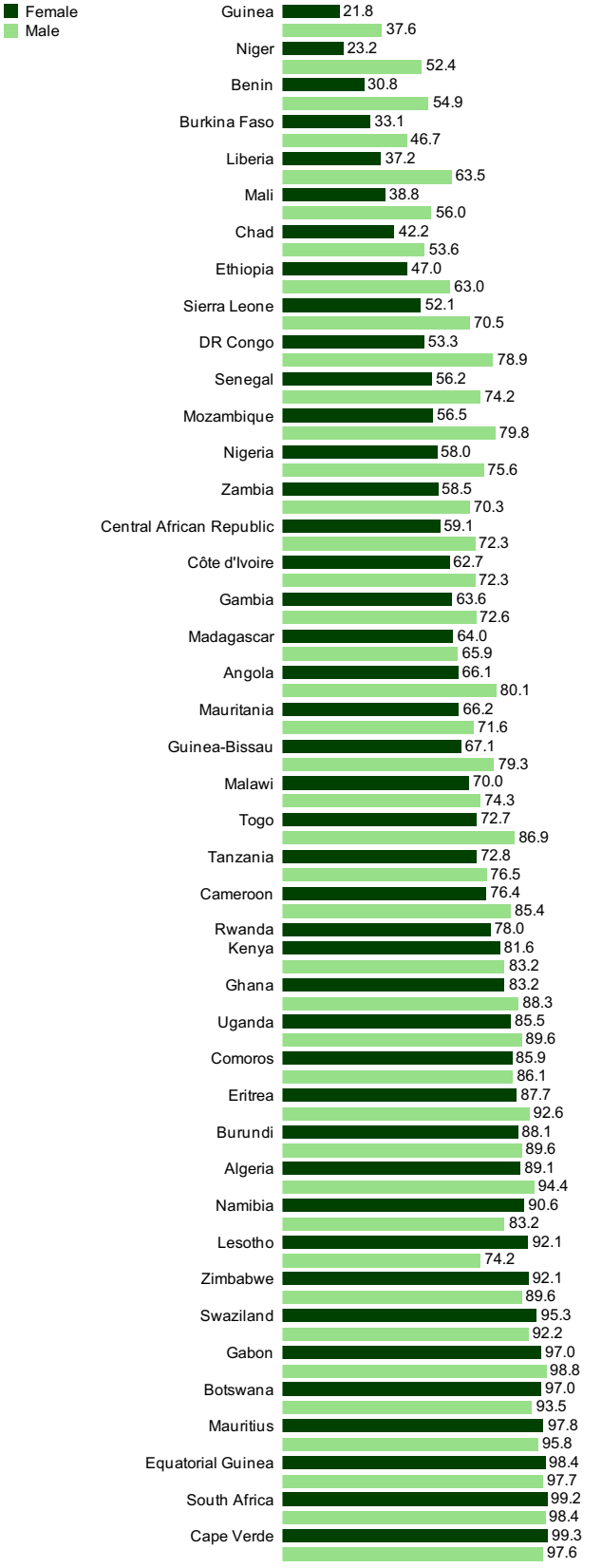
Figure 5.4.5.1 : Adult literacy rate (percentage aged 15 and older) in the African Region in 2005-2011 in the African Region



Countries of the African Region without data are not included in the chart.

Source : WHS 2013. Geneva : WHO, 2013.

Figure 5.4.5.2 : Population aged 15-24 years who can both read and write (i.e. youth literacy rate*) (%) in 2005-2011 in the African Region

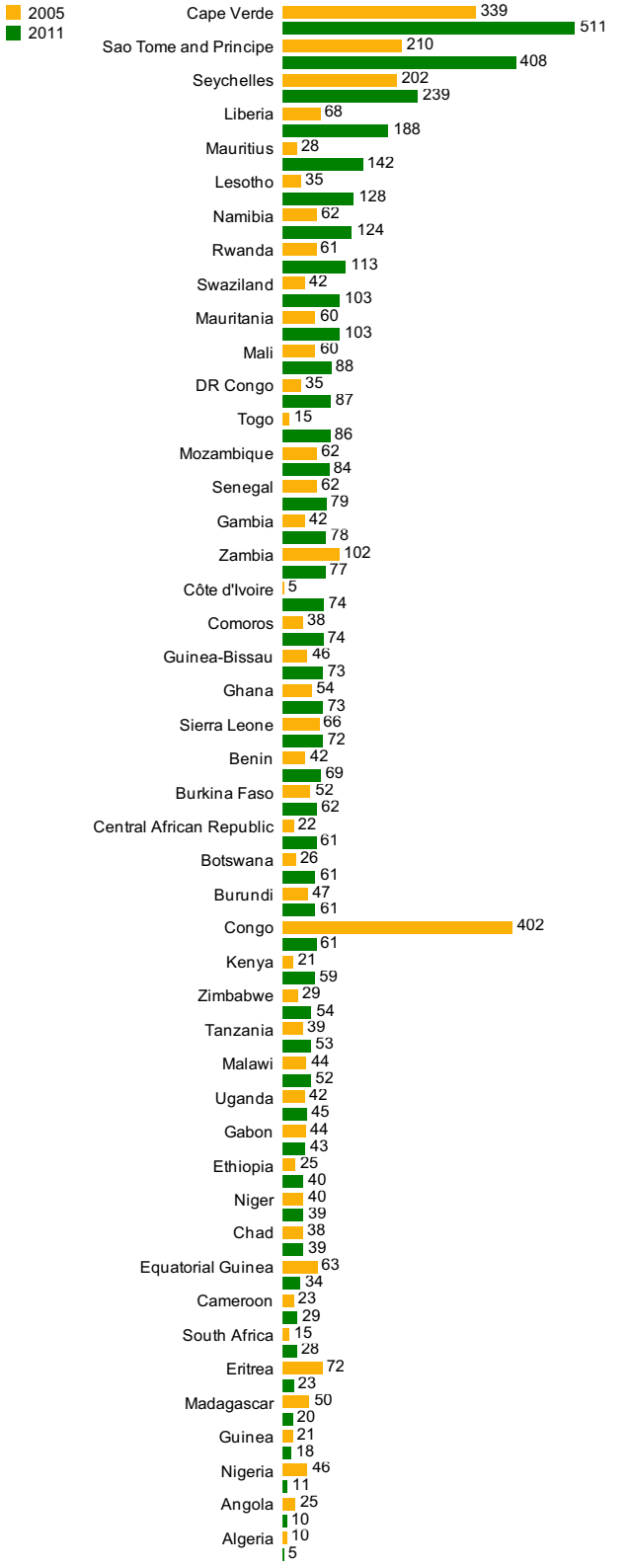


Countries of the African Region without data are not included in the chart.

*The youth literacy rate reflects the outcomes of primary education over the previous 10 years or so. As a measure of the effectiveness of the primary education system, it is often seen as a proxy measure of social progress and economic achievement. The literacy rate for this analysis is simply the complement of the illiteracy rate.
Source: UNSD, August 2013.

5.4.6. Global partnerships and financial flows

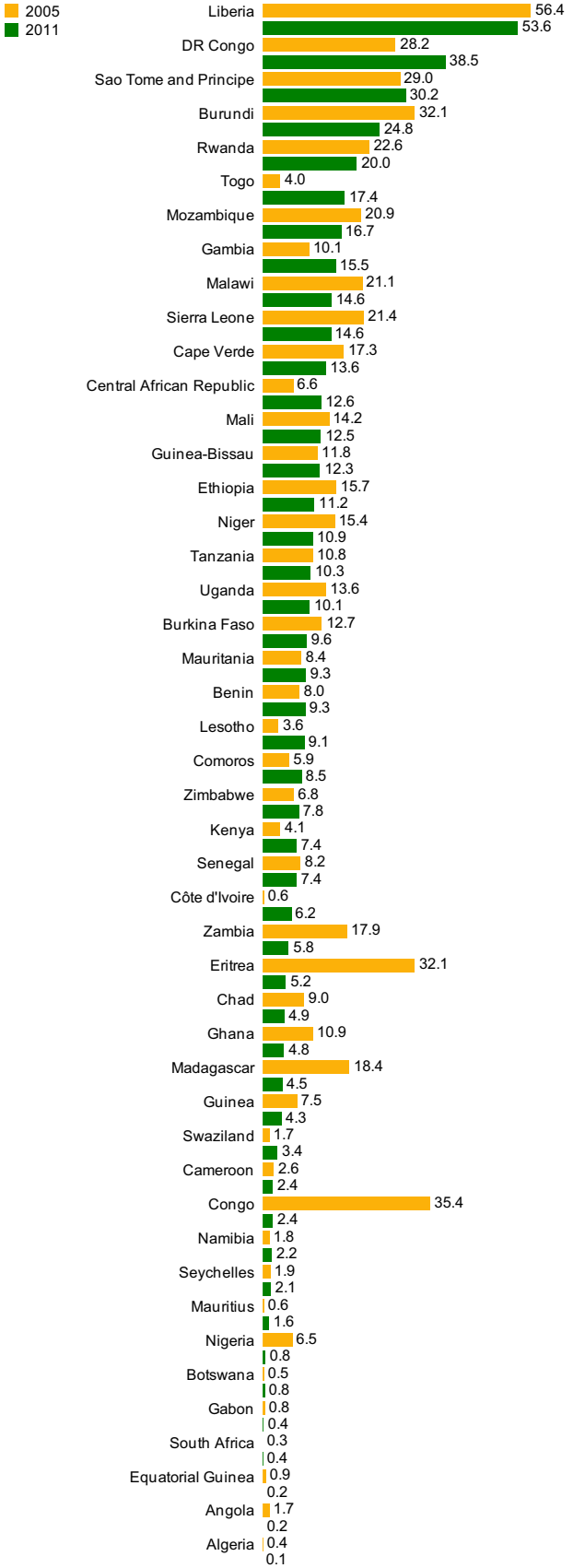
Figure 5.4.6.1 : Per capita official development assistance* received (US$) in 2005 and 2011 in the African Region



Countries of the African Region without data are not included in the chart.

* *Official Development Assistance (ODA)* is defined as those flows to countries and territories on the DAC List of ODA Recipients (available at www.oecd.org/dac/stats/daclist) and to multilateral development institutions (1) that are provided by official agencies, including state and local governments, or by their executive agencies; and (2) each transaction of which is (a) administered with the promotion of the economic development and welfare of developing countries as its main objective and (b) concessional in character and conveys a grant element of at least 25% (calculated at a rate of discount of 10%).
Source: World Bank, 2013.

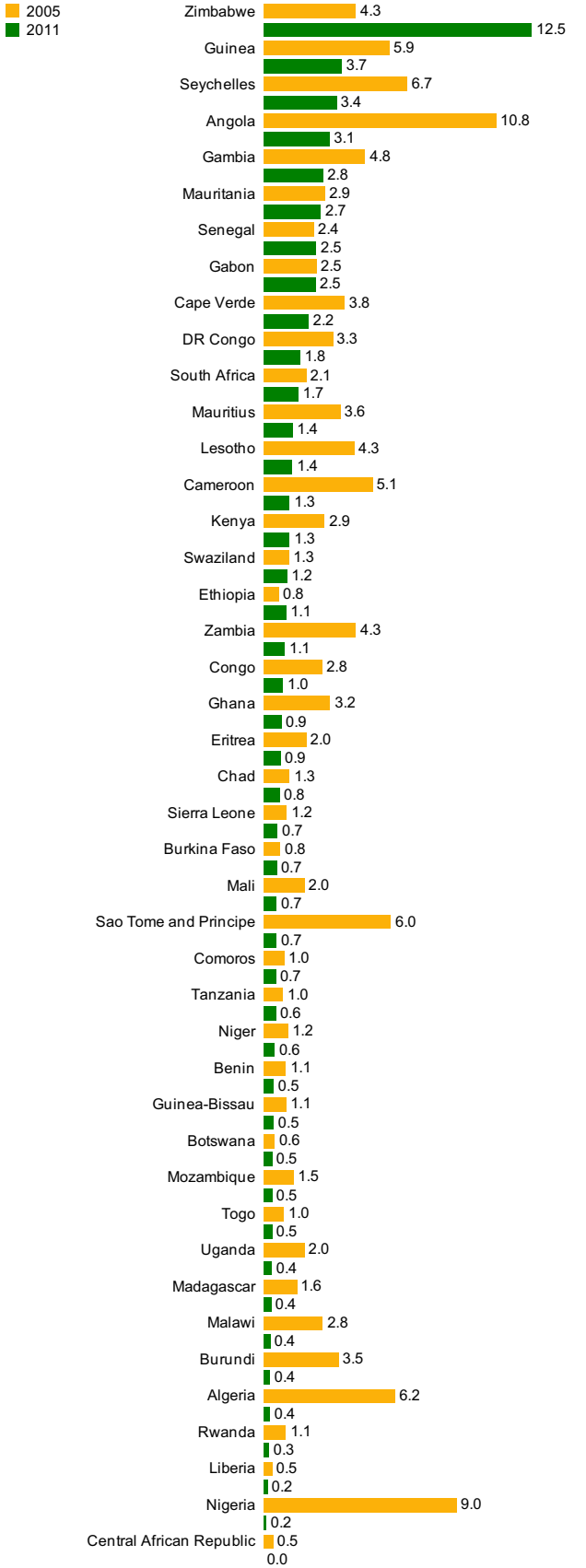
Figure 5.4.6.2 : Official development assistance received as persentage of GNI in 2005 and 2011 in the African Region



Countries of the African Region without data are not included in the chart.

Source: World Bank, 2013.

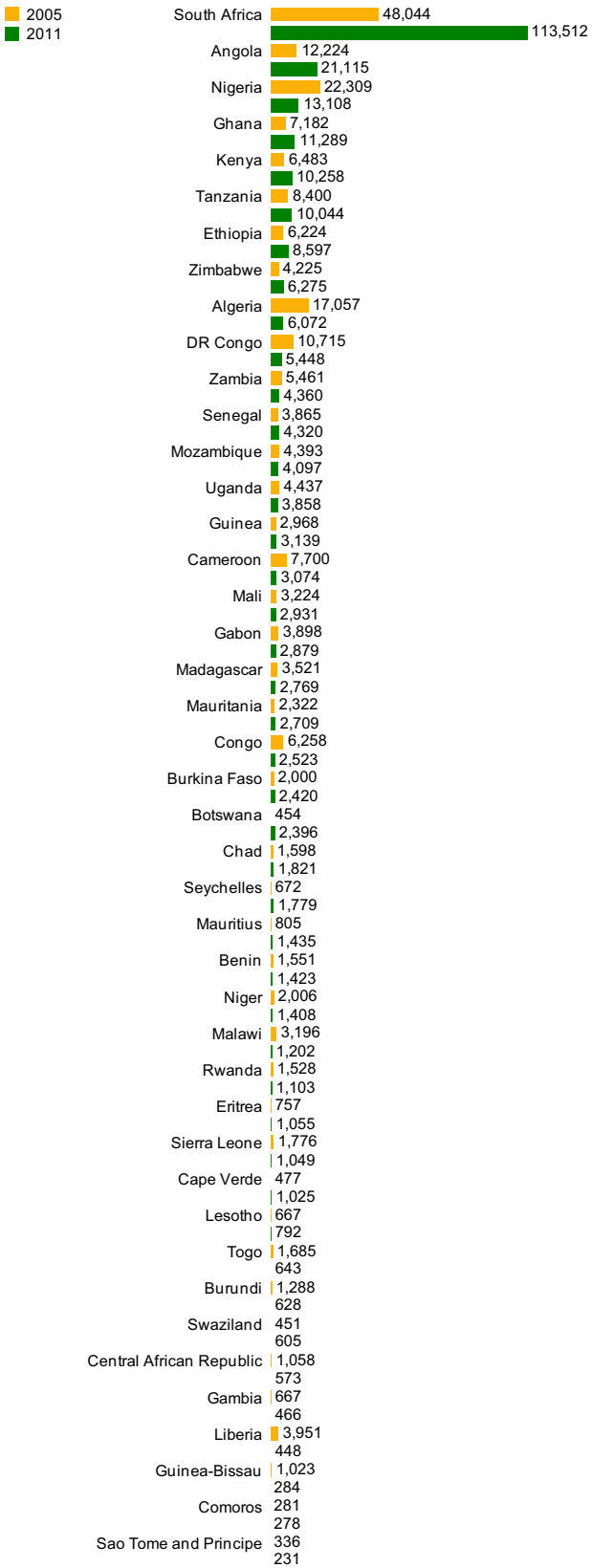
Figure 5.4.6.3 : Total debt service as percentage of GNI in 2005 and 2011 in the African Region



Countries of the African Region without data are not included in the chart.

Source : World Bank, 2013

Figure 5.4.6.4 : Total external debt stocks* (in millions of current US$) 2005 and 2011 in the African Region

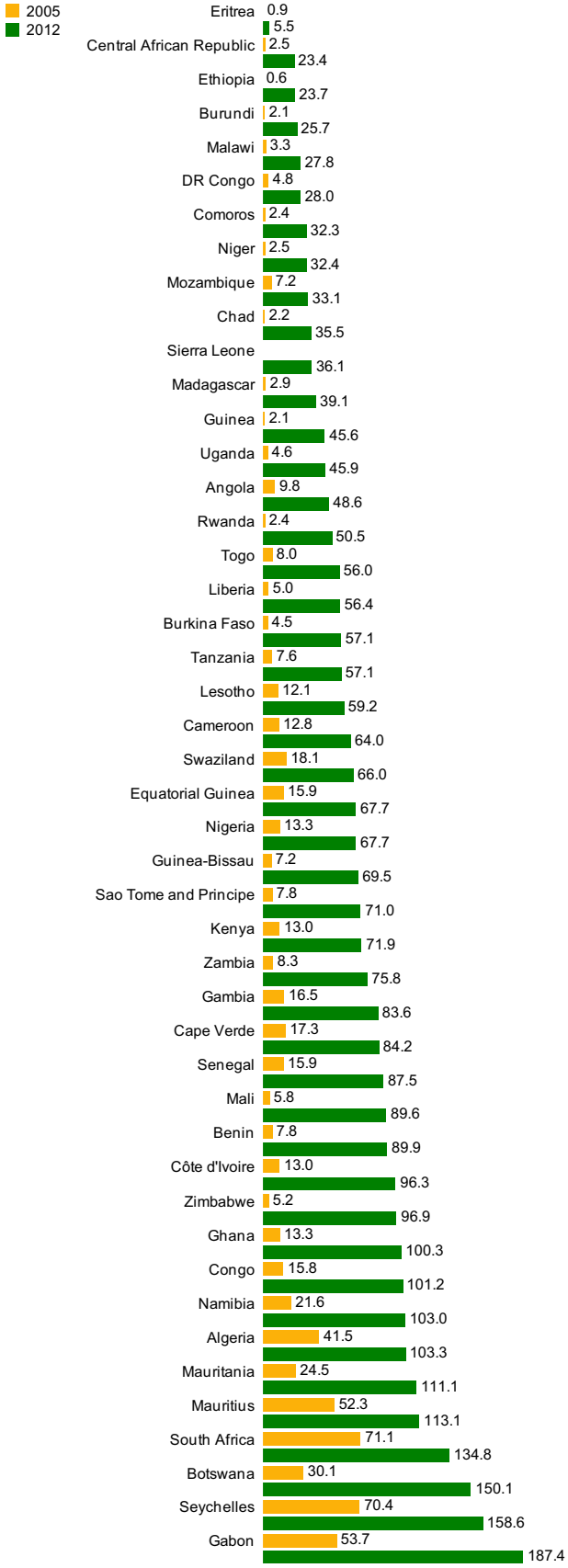


Countries of the African Region without data are not included in the chart.

*Total external debt is debt owed to non-residents repayable in foreign currency, goods or services. Total external debt is the sum of public, publicly guaranteed and private non-guaranteed long-term debt, use of IMF credit and short-term debt. Short-term debt includes all debt having an original maturity of 1 year or less and interest in arrears on long-term debt.
Source: World Bank, 2013

5.4.7. Science and technology

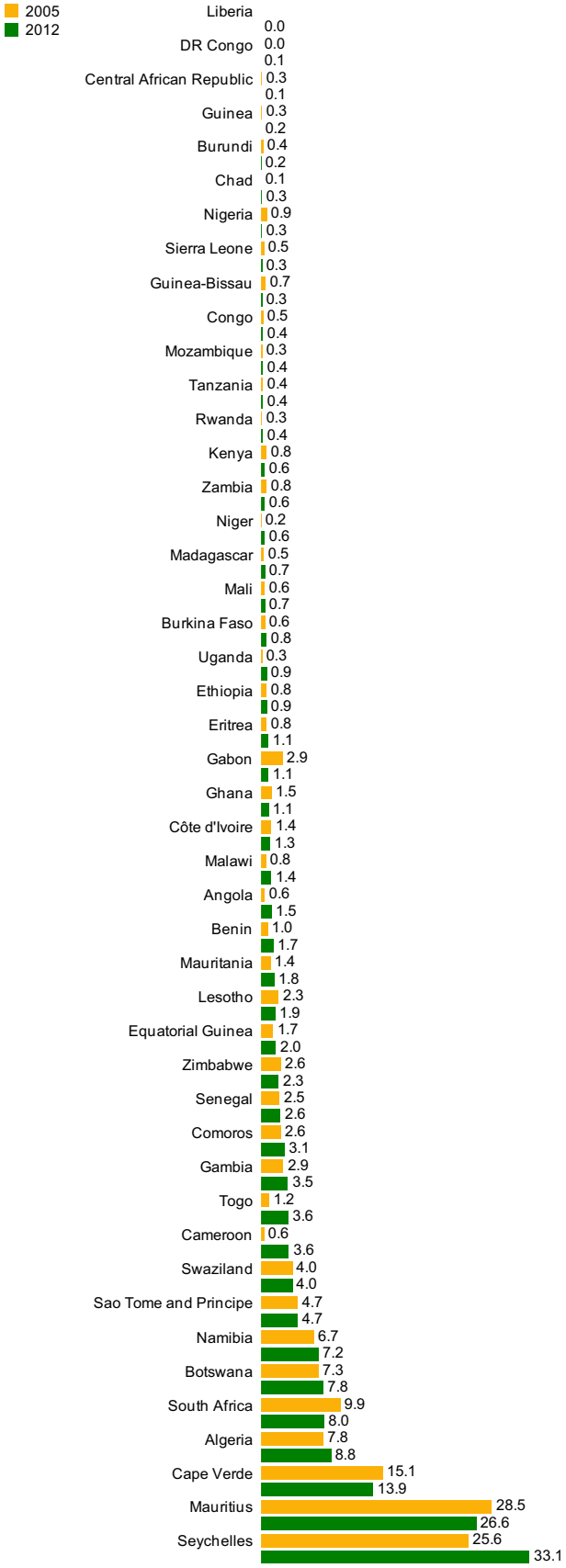
Figure 5.4.7.1 : Percentage of population who are cellular or mobile subscribers in 2005 and 2012 the African Region



Countries of the African Region without data are not included in the chart.

Source: ITU, August 2013

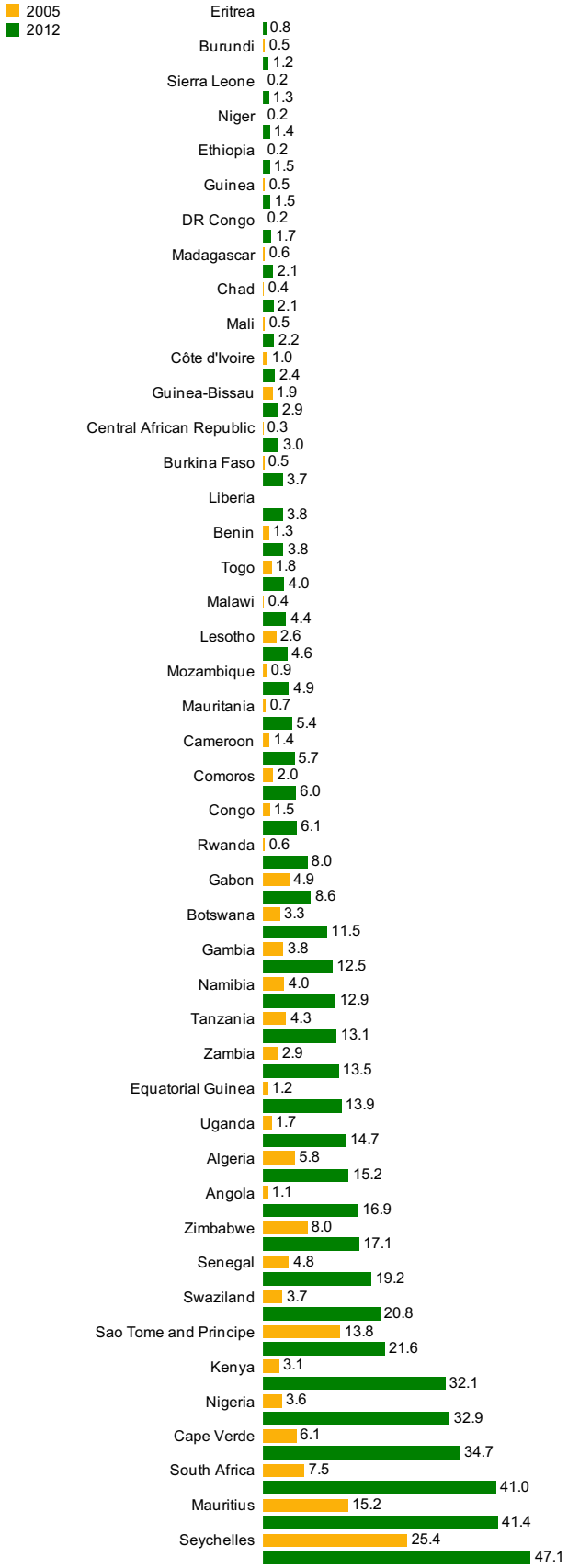
Figure 5.4.7.2 : Percentage of population who are telephone (fixed and mobile) subscribers in 2005 and 2012 the African Region



Countries of the African Region without data are not included in the chart.

Source: ITU, August 2013

Figure 5.4.7.3 : Percentage of the population who are Internet users in 2005 and 2012 in the African Region

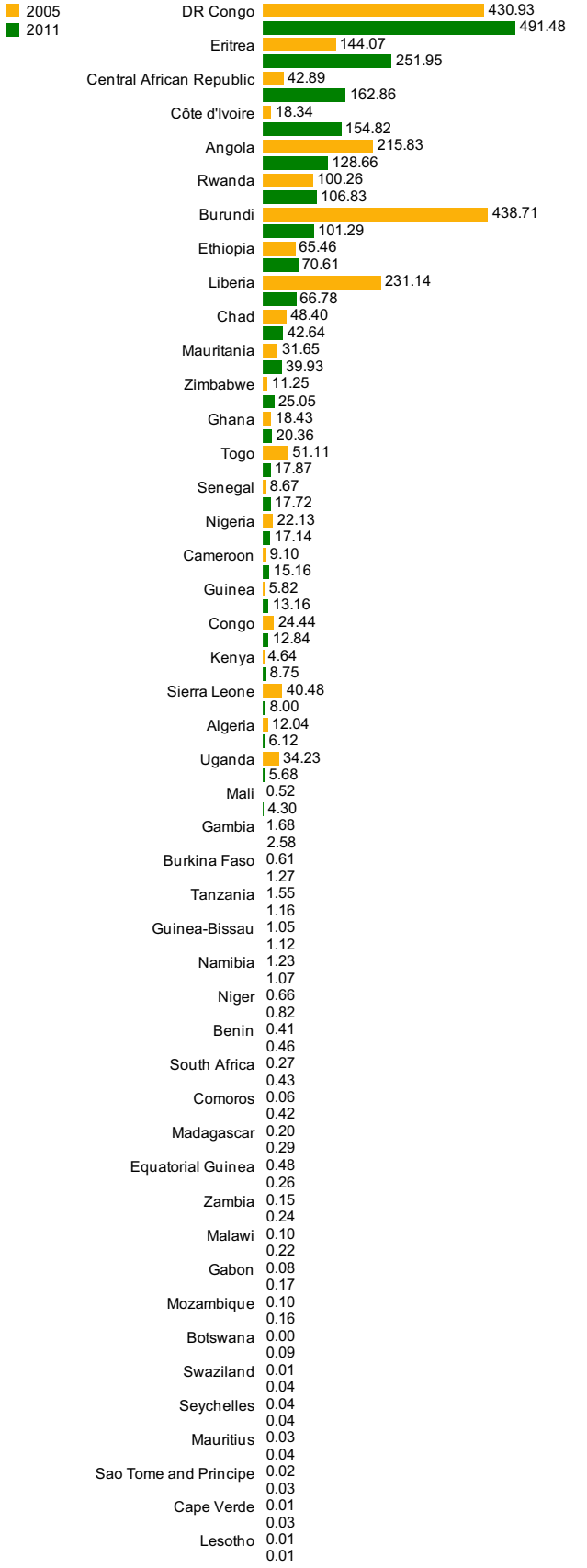


Countries of the African Region without data are not included in the chart.

Source: ITU, August 2013

5.4.8. Emergencies and disasters

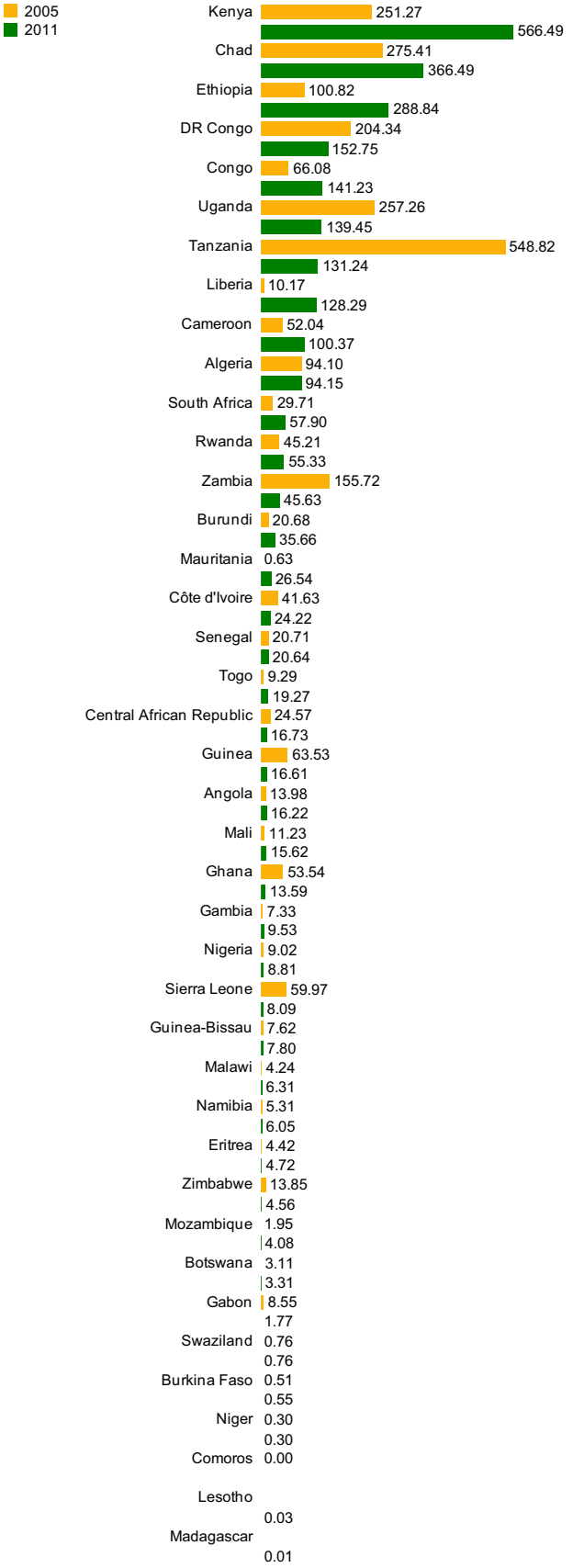
Figure 5.4.8.1 : Total number of refugees (in thousands) by country of origin in 2005 and 2011 in the African Region



Countries of the African Region without data are not included in the chart.

Source: UNHCR, August 2013

Figure 5.4.8.2 : Total number of refugees (in thousands) by country of asylum in 2005 and 2011 in the African Region



Countries of the African Region without data are not included in the chart.

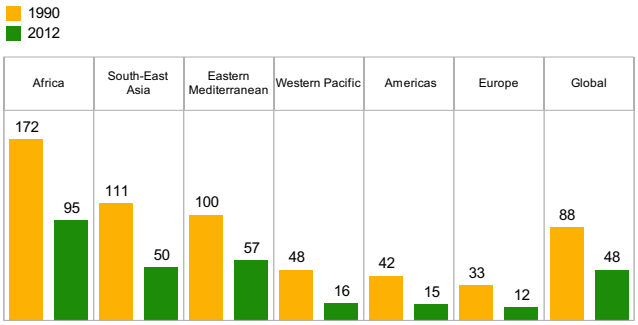
Source: UNHCR, August 2013

6. Progress on the MDGs

6.1 MDG-4 : Reduce child mortality

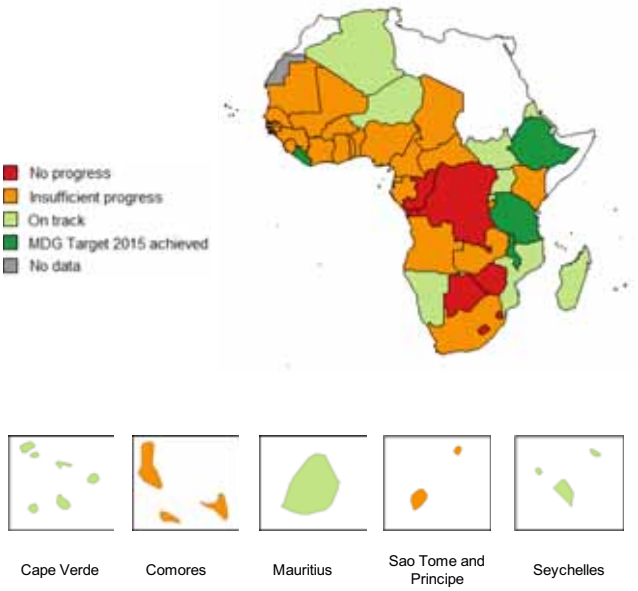
6.1.1 Target 4.A : Reduce by two thirds, between 1990 and 2015, the under-five mortality rate

Figure 6.1.1.1: Under-5 mortality rate (per 1000 live births) in WHO Regions, both sexes, 1990 and 2012



Source : World Health Statistics 2013. Geneva: WHO, 2013

Figure 6.1.1.3: Classification of countries according to the achievement of the MDG Target on under-5 mortality in the African Region, 1990 and 2012



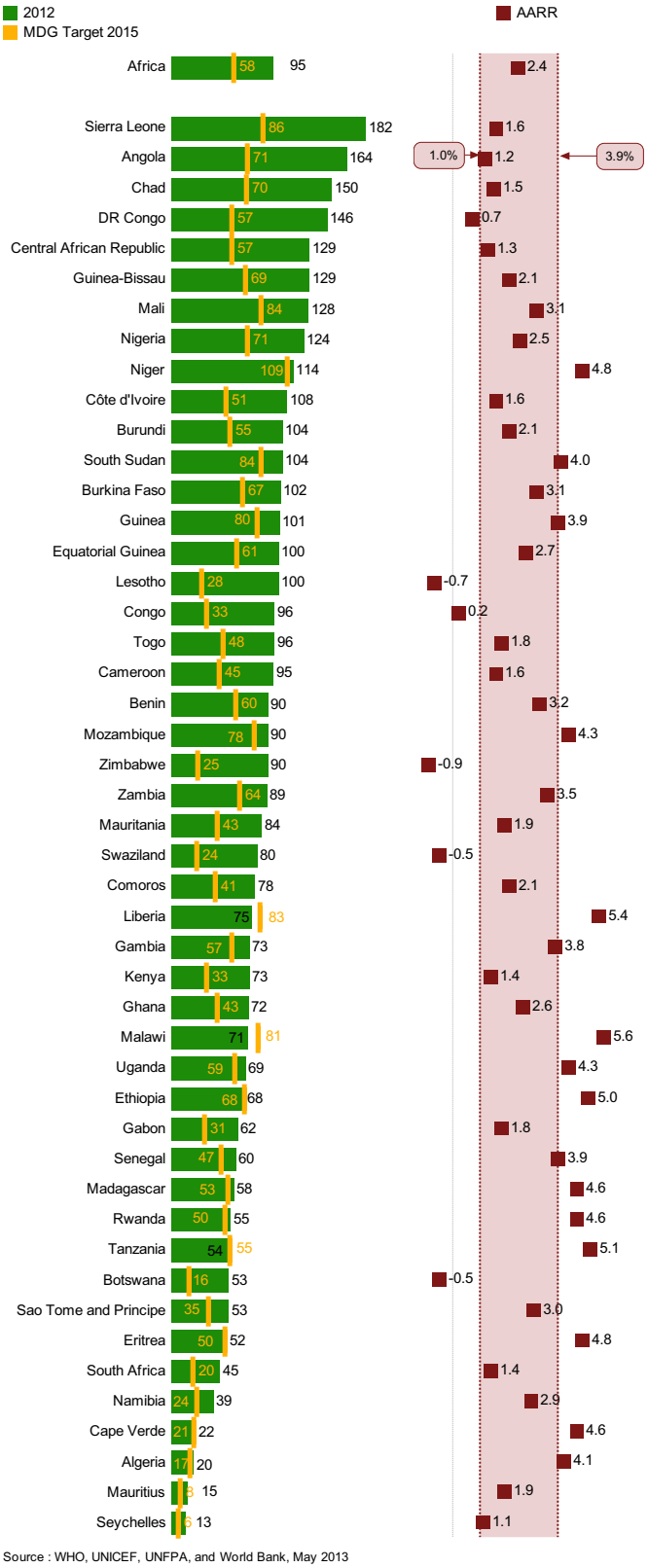
Source : WHO, UNICEF, UNFPA, and World Bank, May 2013

Four countries have achieved the MDG Target 2015 of Reducing by two thirds, between 1990 and 2015, the under-five mortality rate: **Ethiopia, Liberia, Malawi and Tanzania**

Notes:

WHO, World Health Statistics 2013, Geneva World Health Organization, 2013.
Country and regional assessments of progress towards MDG 4 are based on average annual rates of reduction (AARR) in U5MR observed for 1990-2012 and required during 2013-2015 in order to reach the MDG target of reducing U5MR by two thirds by 2015, according to the following thresholds: *On track*: U5MR is less than 40, or U5MR is 40 or more and AARR observed for 1990-2012 is 4.0 per cent or more. *Insufficient progress :* U5MR is 40 or more and AARR observed for 1990-2012 is between 1.0 per cent and 3.9 per cent. *No progress*: U5MR is 40 or more and AARR observed for 1990-2012 is less than 1.0 per cent.

Figure 6.1.1.2: Under-5 mortality rate (per 1000 live births) in the African Region, by country, 2012, the MDG target 2015 and the Annual average rate of reduction (AARR %), between 1990 and 2012

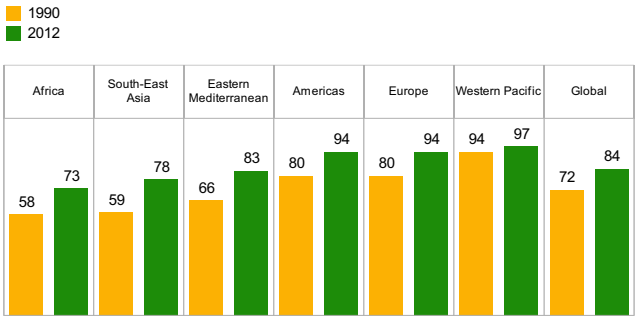


Source : WHO, UNICEF, UNFPA, and World Bank, May 2013

6.1 MDG-4 : Reduce child mortality

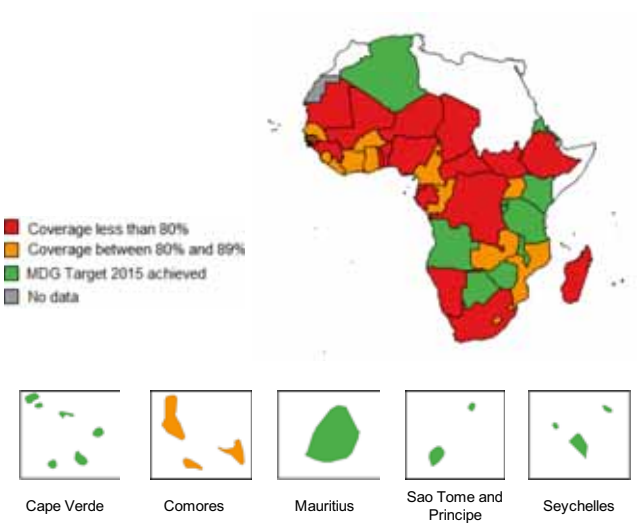
6.1.1 Target 4.A : Reduce by two thirds, between 1990 and 2015, the under-five mortality rate

Figure 6.1.1.4: Percentage of Measles-containing vaccine (MCV) immunization coverage among 1-year- olds in WHO Regions, both sexes, 1990 and 2012



Source : WHO/UNICEF coverage estimates for 1982-2012

Figure 6.1.1.6: Classification of countries according to the achievement of the MDG Target on Measles-containing vaccine coverage (MCV) in the African Region, 2012



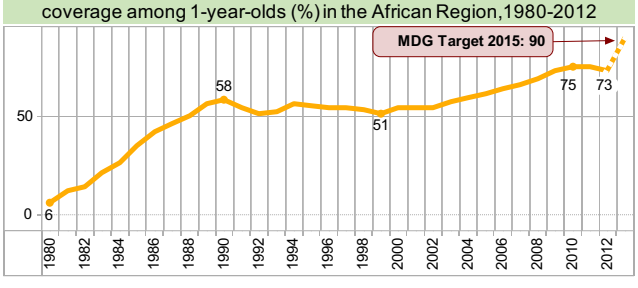
Source : WHO/UNICEF coverage estimates for 1982-2012

Fifteen countries have achieved the MDG target of 90% coverage by 2015: **Algeria, Angola, Botswana, Burundi, Cape Verde, Eritrea, Gambia, Kenya, Malawi, Mauritius, Rwanda, Sao Tome and Principe, Seychelles, Tanzania and Zimbabwe**

Notes:

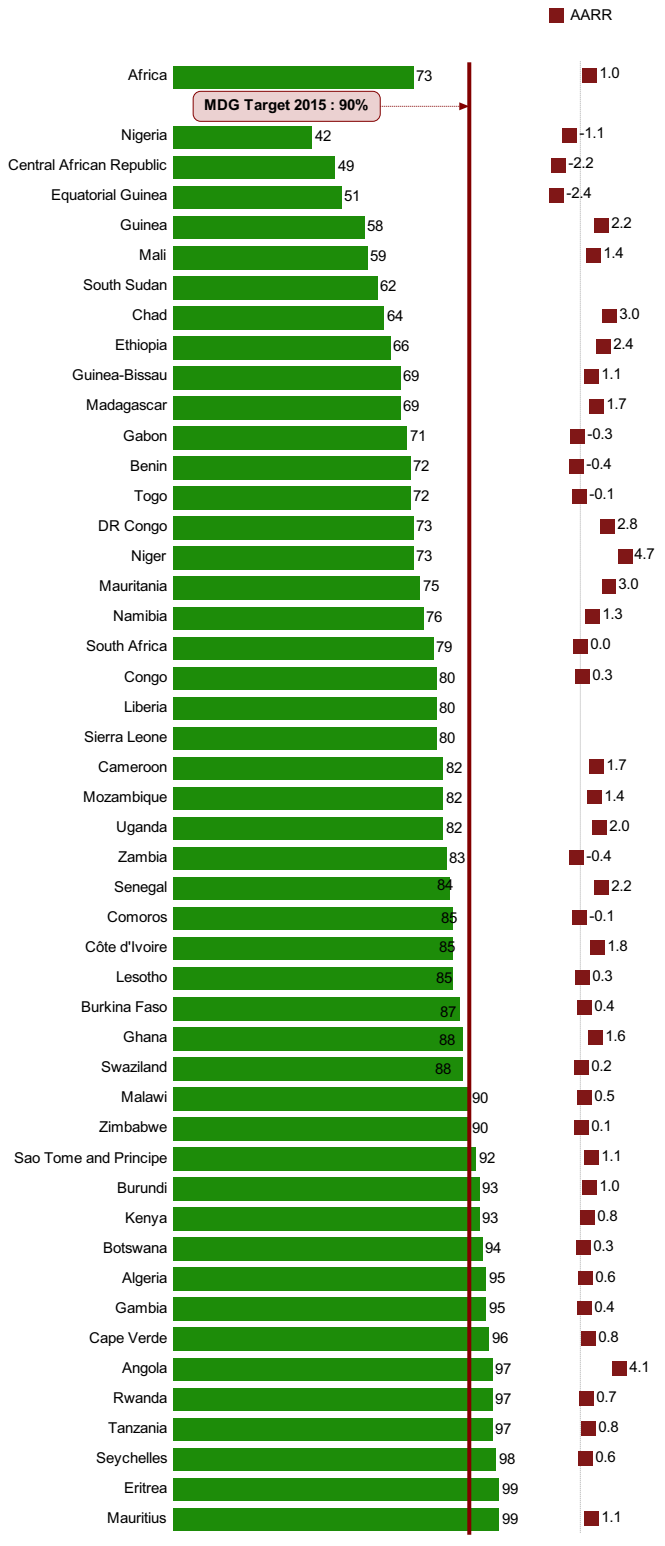
The global Target is 90% of coverage by 2015. That target was setting at the 2010 World Health Assembly.

Figure 6.1.1.7: Trend in Measles-containing vaccine (MCV) immunization coverage among 1-year-olds (%) in the African Region,1980-2012



Source : WHO/UNICEF coverage estimates for 1982-2012

Figure 6.1.1.5: Percentage of Measles-containing vaccine (MCV) immunization coverage among 1-year-olds in the African Region, by country, 2012, the MDG target 2015 and the Annual average rate of reduction (AARR %), between 1990 and 2012

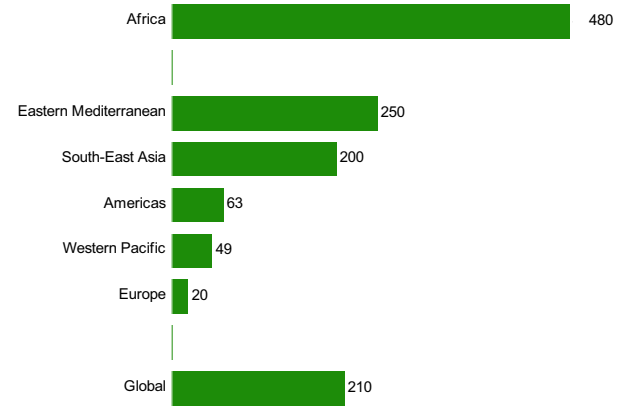


Source : WHO/UNICEF coverage estimates for 1982-2012

6.2 MDG-5 : Improve maternal health

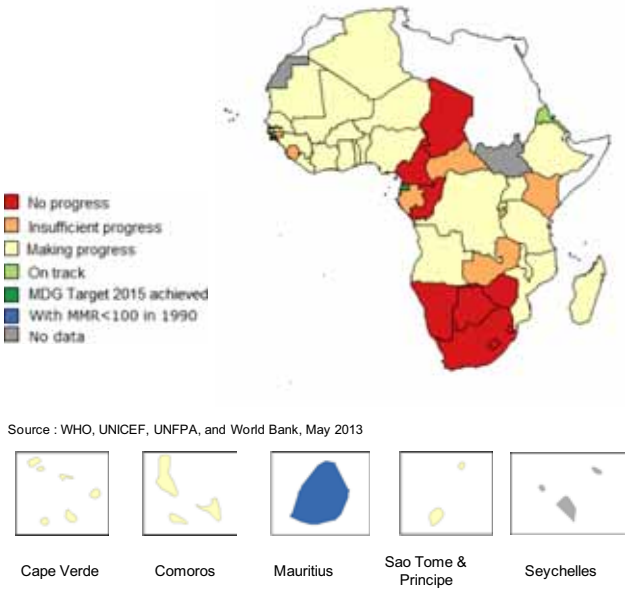
6.2.1 Target 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio

Figure 6.2.1.1: Maternal mortality ratio (per 100 000 live births) in WHO Region in 2010



Source : World Health Statistics 2013. Geneva: WHO, 2013

Figure 6.2.1.3: Classification of countries according to the achievement of the MDG Target on maternal mortality ratio in the African Region, 1990 and 2010



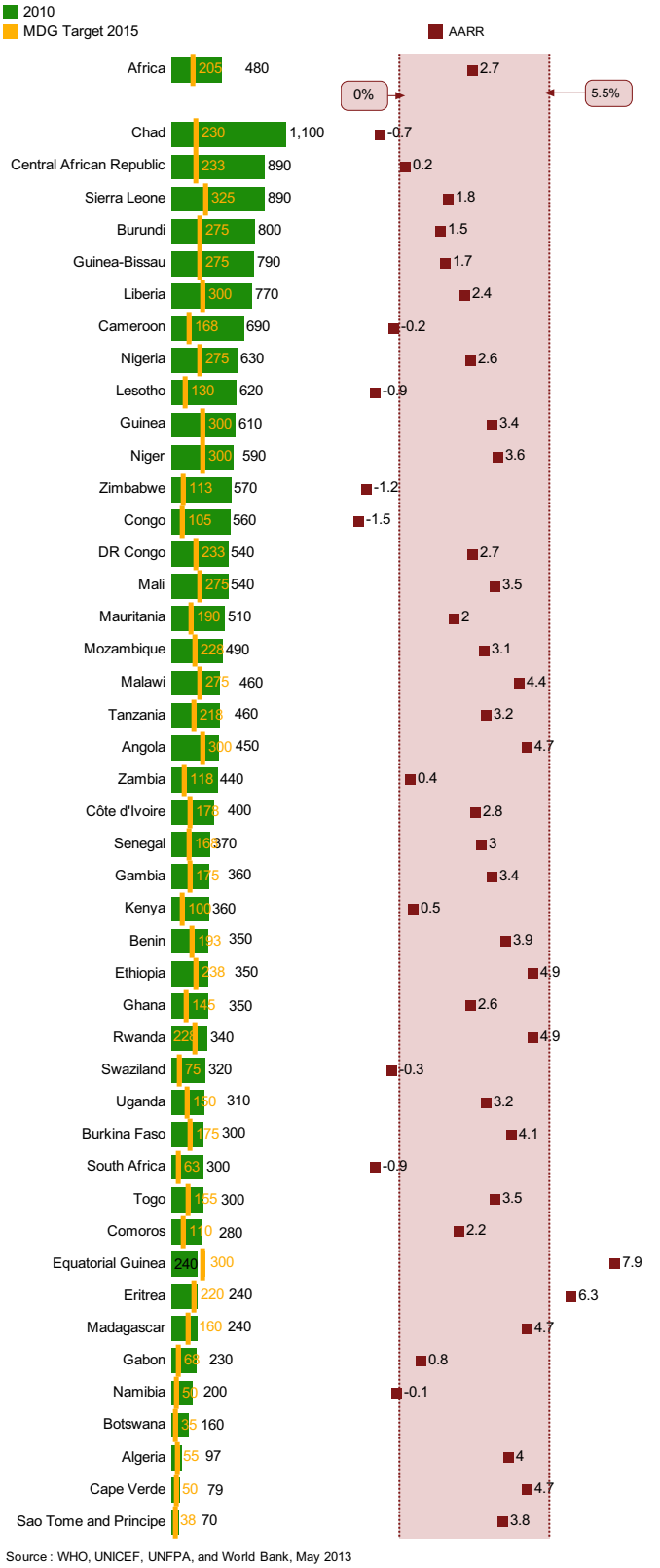
Source : WHO, UNICEF, UNFPA, and World Bank, May 2013

One country has achieved the MDG target of Reducing by three quarters, between 1990 and 2015, the maternal mortality ratio: **Equatorial Guinea**

Notes:

Trends in Maternal mortality:1990 to 2010: Estimates developed by WHO, UNICEF, UNFPA and the World Bank, WHO, 2010 and WHO, World Health Statistics 2013, Geneva, World Health Organization 2013.
Countries with MMR≥100 in 1990 are categorized as "**on track**" if there has been 5.5% decline or more annually, "**making progress**" if MMR has declined between 2% and 5.5%, making "**insufficient progress**" if MMR has declined by less than 2% annually, and having "**no progress**" if there has been no decline in MMR. No data available for Seychelles. Mauritius with MMR<100 in 1990 is not categorized.

Figure 6.2.1.2: Maternal mortality ratio (per 100 000 live births) in the African Region, 2010 the MDG target 2015 and the Annual average rate of reduction (AARR,1990 and 2010)

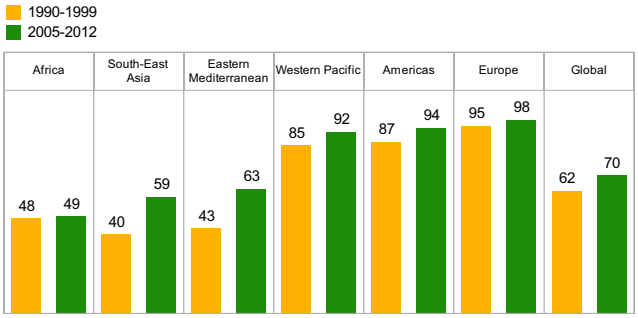


Source : WHO, UNICEF, UNFPA, and World Bank, May 2013

6.2 MDG-5 : Improve maternal health

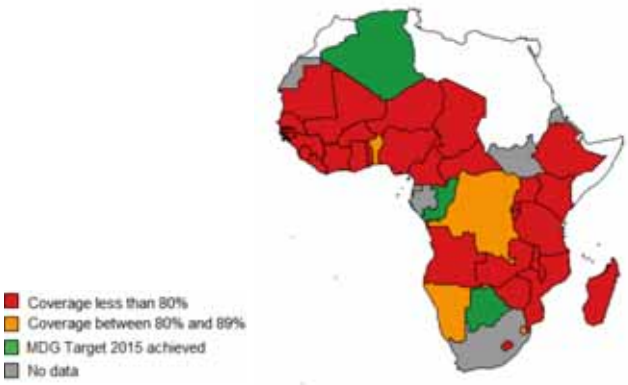
6.2.1 Target 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio

Figure 6.2.1.4: Percentage of births attended by skilled (SBA) health personnel, by WHO Region, 1990-1999, 2005-2012



Source : World Health Statistics 2013. Geneva: WHO, 2013

Figure 6.2.1.6: Classification of countries according to the achievement of the MDG Target on births attended by skilled health personnel (%) in the African Region, 2005-2012



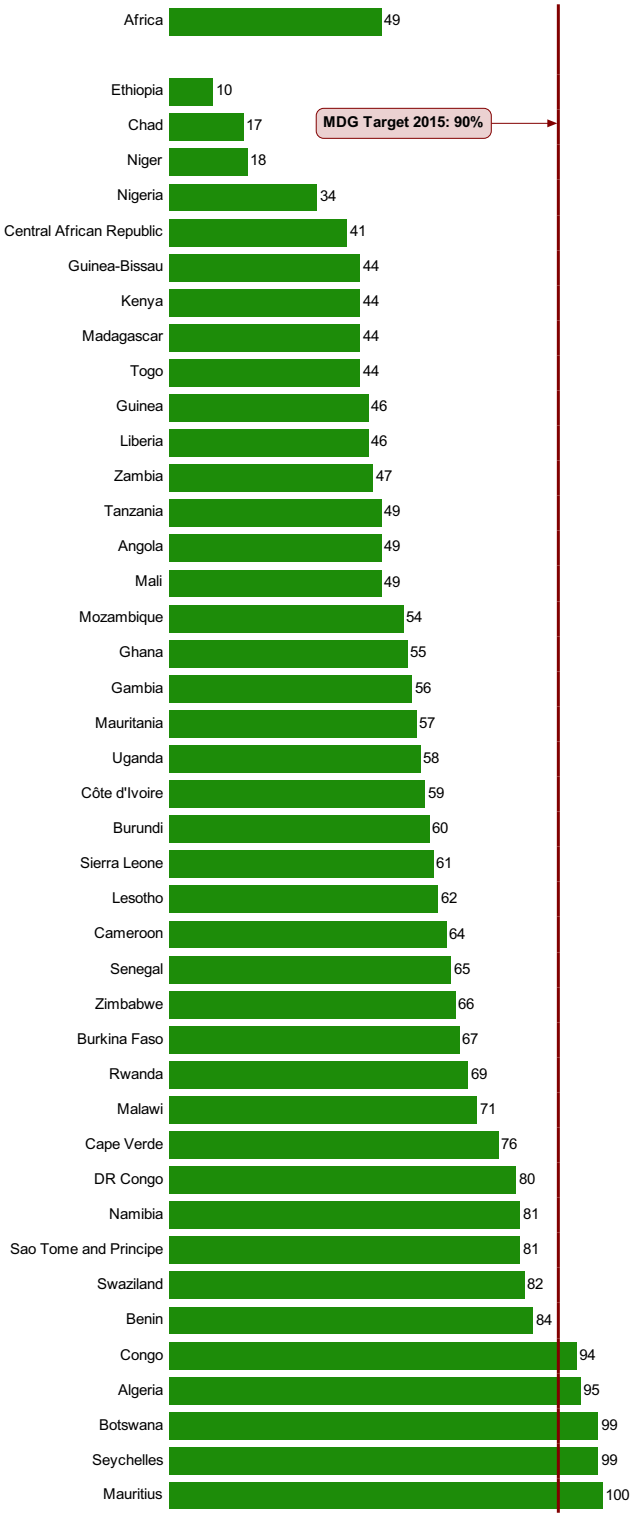
Source : World Health Statistics 2013. Geneva: WHO, 2013

Five countries have achieved the MDG target of 90% coverage by 2015: **Algeria, Botswana, Congo, Mauritius and Seychelles**

Notes:

The global Target is 90% of coverage by 2015. That target was setting by the International Conference on Population and Development (ICPD+5).

Figure 6.2.1.5: Percentage of births attended by skilled (SBA) health personnel in the African Region, 2005-2012 and the MDG target 2015



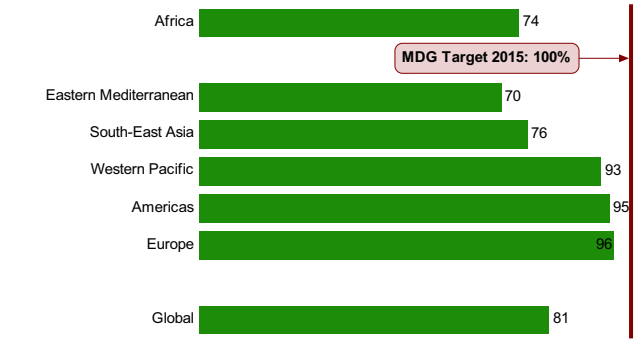
Countries of the African Region without data are not included in the chart.

Source : World Health Statistics 2013. Geneva: WHO, 2013

6.2 MDG-5 : Improve maternal health

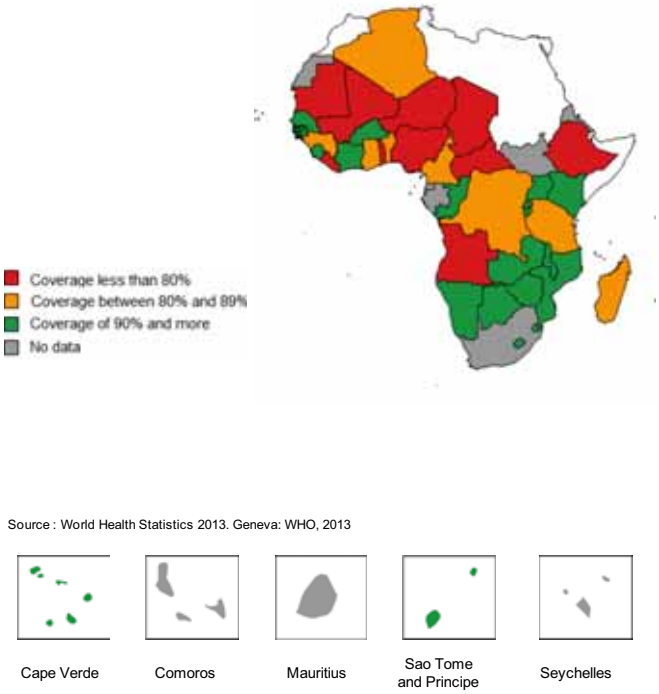
6.2.2 Target 5.B: Achieve, by 2015, universal access to reproductive health

Figure 6.2.2.1: Percentage of Antenatal care coverage-at least one visit (ANC1), by WHO Region, 2005-2012



Source : World Health Statistics 2013. Geneva: WHO, 2013

Figure 6.2.2.3: Classification of countries according to the achievement of the MDG Target on percentage of Antenatal care coverage-at least one visit (ANC1), in the African Region, 2005-2012



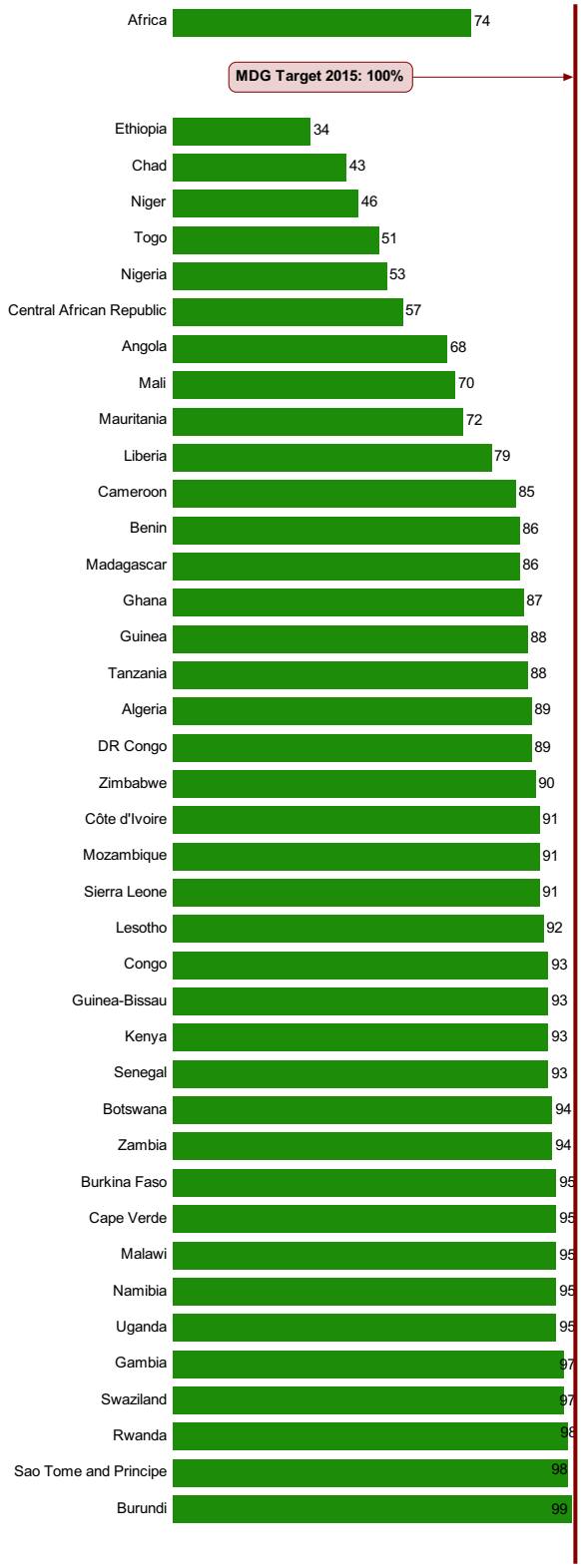
Source : World Health Statistics 2013. Geneva: WHO, 2013

There are currently no countries that have achieved the MDG Target 2015. However, some countries are on track to reach it, with covarage over 95%: **Burundi, Gambia, Rwanda, Sao Tome and Principe, Swaziland**

Notes:

The global Target is 100% of coverage by 2015. That target was setting by the International Conference on Population and Development (ICPD+5).

Figure 6.2.2.2: Percentage of Antenatal care coverage-at least one visit (ANC1), in the African Region, 2005-2012 and the MDG target 2015



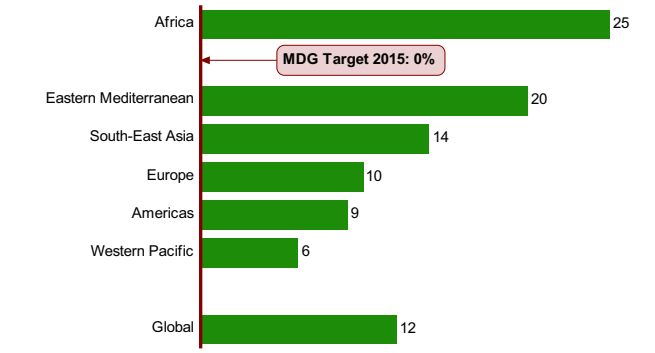
Countries of the African Region without data are not included in the chart.

Source : World Health Statistics 2013. Geneva: WHO, 2013

6.2 MDG-5 : Improve maternal health

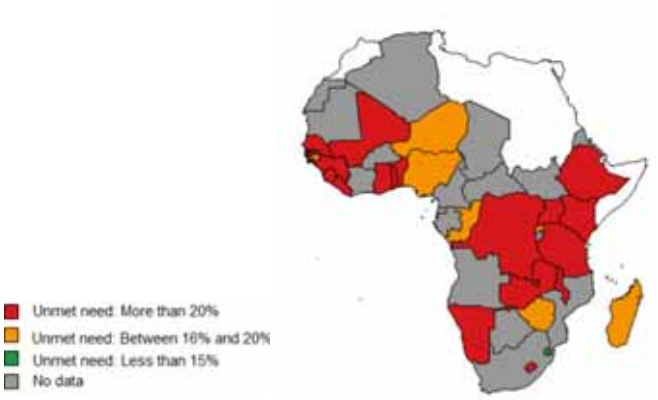
6.2.2 Target 5.B: Achieve, by 2015, universal access to reproductive health

Figure 6.2.2.4: Percentage of Unmet need for family planning, by WHO Region, 2005-2012



Source : World Health Statistics 2013. Geneva: WHO, 2013

Figure 6.2.2.6: Classification of countries according to the achievement of the MDG Target on percentage of Unmet need for family planning, in the African Region, 2005-2012



Source : World Health Statistics 2013. Geneva: WHO, 2013

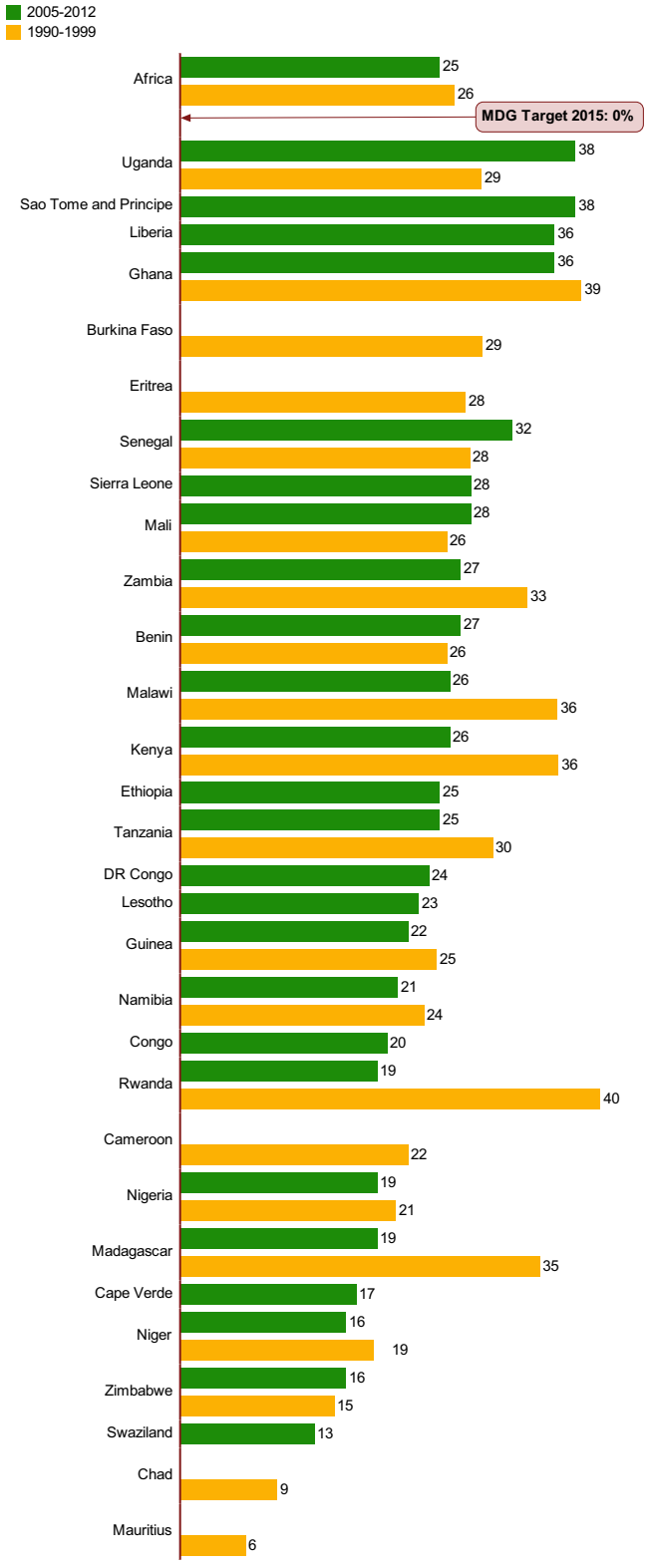
Cape Verde | Comoros | Mauritius | Sao Tome and Principe | Seychelles

There are currently no countries that have achieved the MDG Target 2015.

Notes:

Achieving the MDG target of universal access to reproductive health by 2015 can be interpreted as 0% unmet need.

Figure 6.2.2.5: Percentage of Unmet need for family planning, in the African Region, 1990-1990, 2005-2012 and the MDG target 2015



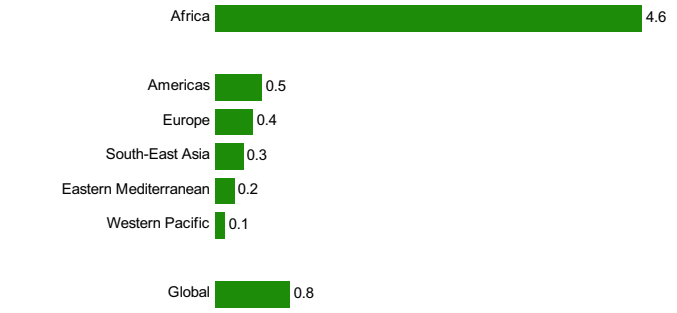
Countries of the African Region without data are not included in the chart.

Source : World Health Statistics 2013. Geneva: WHO, 2013

6.3 MDG-6 : Combat HIV/AIDS, malaria and other diseases

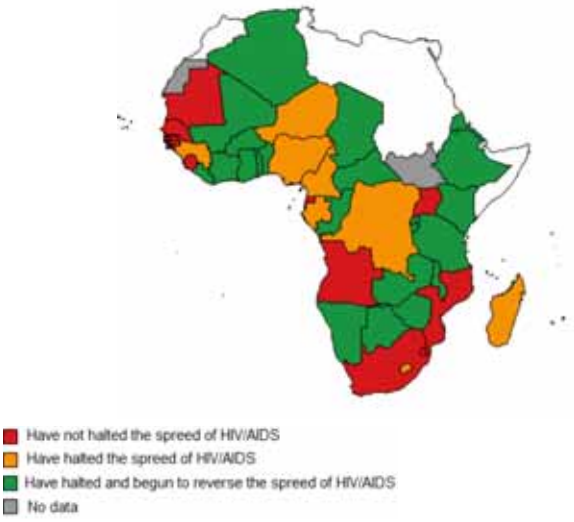
6.3.1 Target 6.A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS

Figure 6.3.1.1: Percentage of people 15-49 years of age living with HIV, by WHO Region, 2001 and 2011



Source : World Health Statistics 2013. Geneva: WHO, 2013

Figure 6.3.1.3: Classification of countries according to the achievement of the MDG Target on Percentage of people 15-49 years of age living with HIV, in the African Region, 2001-2011



Source : World Health Statistics 2013. Geneva: WHO, 2013

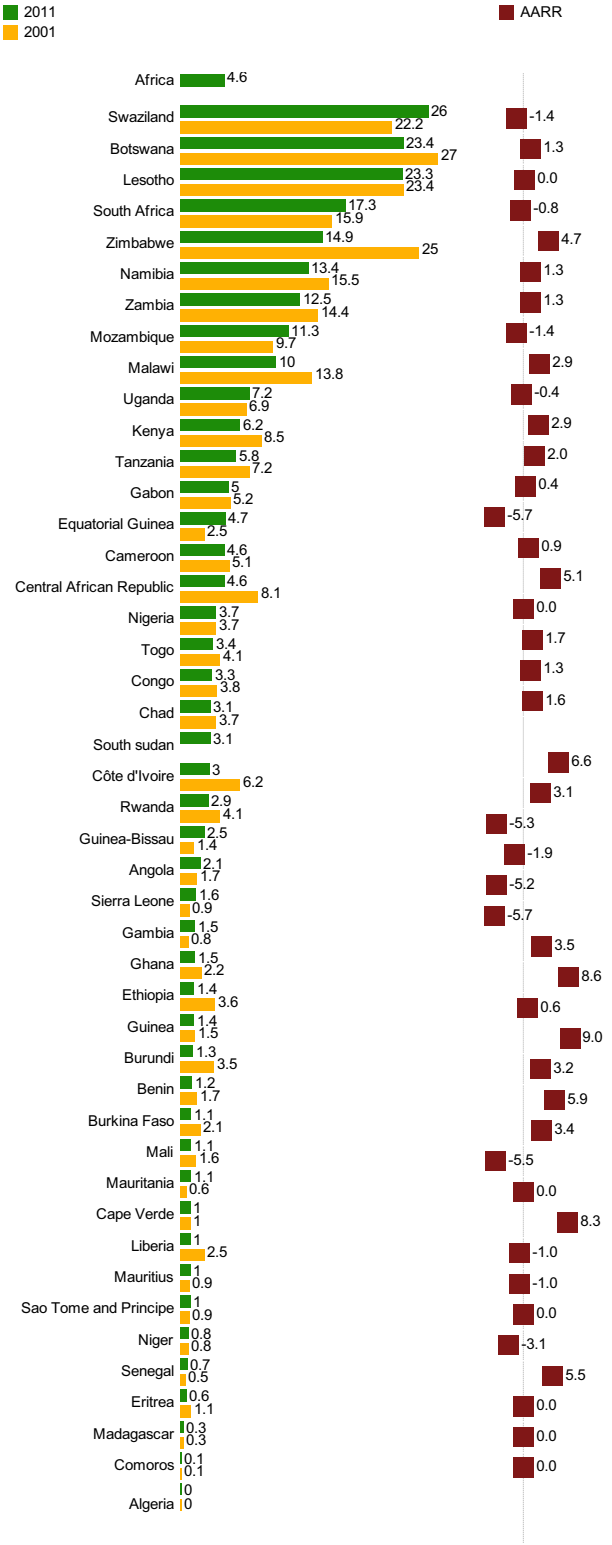
Cape Verde | Comoros | Mauritius | Sao Tome and Principe | Seychelles

Twenty three countries have achieved the MDG target of having halted and begun to reverse the spreed of HIV/AIDS by 2015:
Algeria, Benin, Botswana, Burkina Faso, Burundi, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Eritrea, Ethiopia, Ghana, Kenya, Liberia, Malawi, Mali, Namibia, Rwanda, Togo, Tanzania, Zambia and Zimbabwe

Notes:

The MDG target to halt by 2015 and begin to reverse the spread of HIV/AIDS can be interpreted as any AARR greater than 0%. That target corresponds to an AARR of 0% with cut-off points of +10% (AARR of 1% and more).

Figure 6.3.1.2 : Percentage of people 15-49 years of age living with HIV in the African Region, 2001 , 2011 and the Annual average rate of reduction (AARR %), between 2001 and 2011)



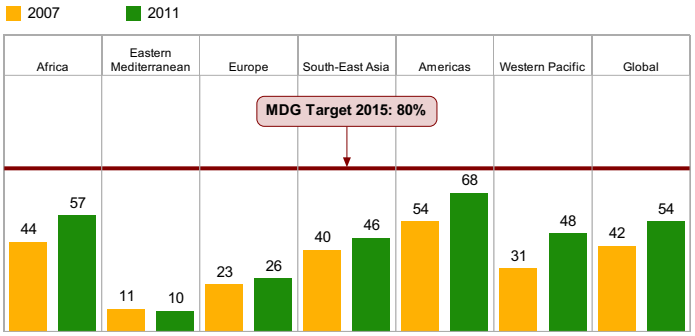
Countries of the African Region without data are not included in the chart.

Source : World Health Statistics 2013. Geneva: WHO, 2013

6.3 MDG-6 : Combat HIV/AIDS, malaria and other diseases

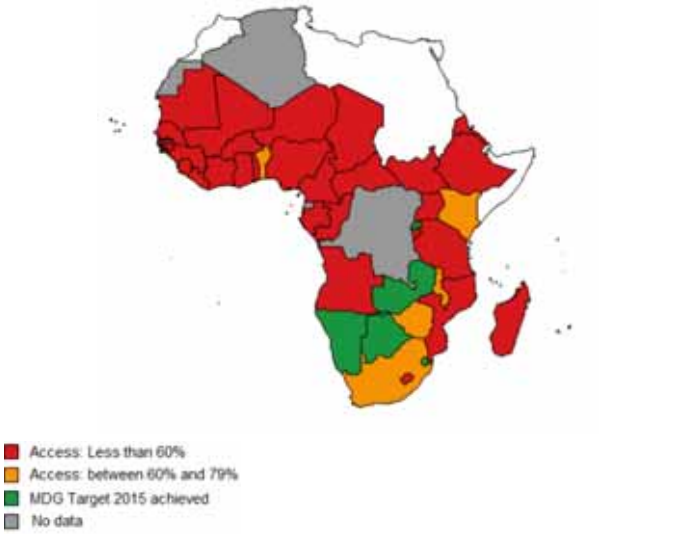
6.3.2 Target 6.B: Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it

Figure 6.3.2.1: Percentage of Antiretroviral therapy coverage among people with advanced HIV infection, by WHO Region, 2007 and 2011



Source : World Health Statistics 2013. Geneva: WHO, 2013

Figure 6.3.2.3: Classification of countries according to the achievement of the MDG Target on Percentage of Antiretroviral therapy coverage among people with advanced HIV infection, in the African Region, 2011



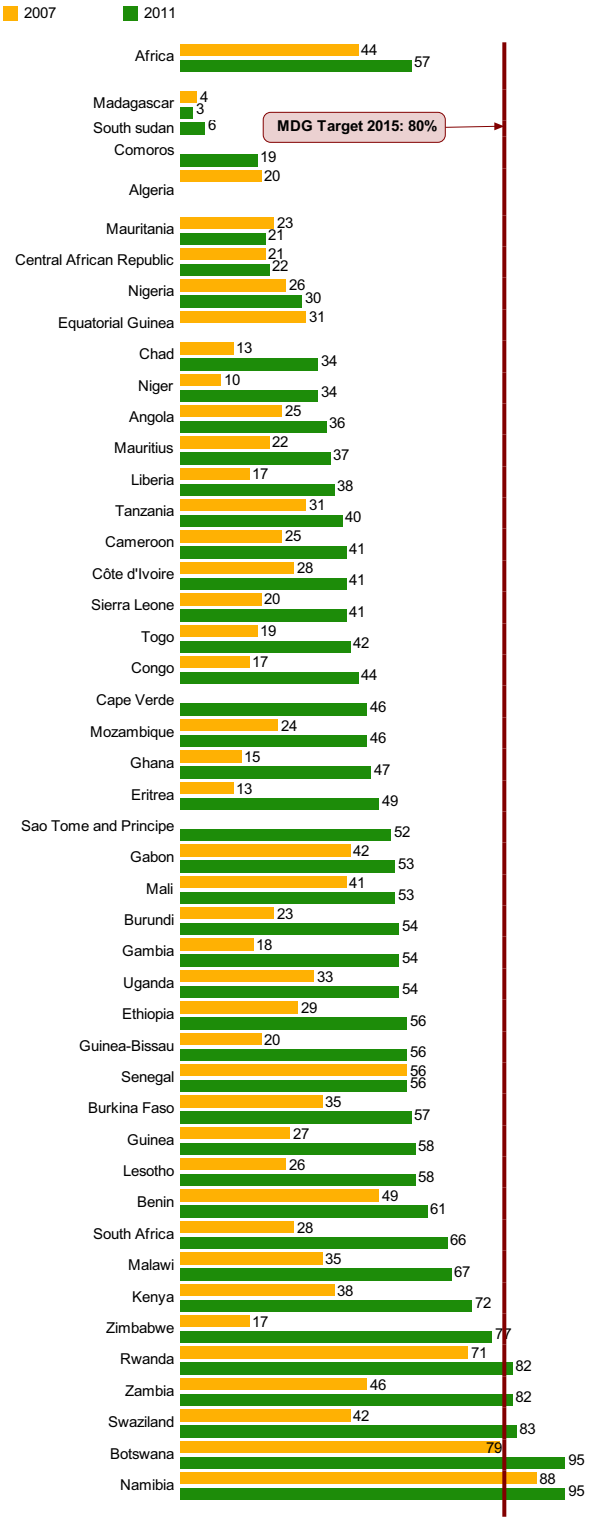
Source : World Health Statistics 2013. Geneva: WHO, 2013

Five countries have achieved the MDG target 2015 of universal access to treatment for HIV/AIDS for all those who need it:
Botswana, Namibia, Rwanda, Swaziland and Zambia

Notes:

The target of universal access to antiretroviral therapy is defined as providing antiretroviral therapy to at least 80% of patients in need (standards for treatment set out in the 2010 guidelines of the Joint United Nations Programme on HIV/AIDS).

Figure 6.3.2.2 : Percentage of Antiretroviral therapy coverage among people with advanced HIV infection in the African Region, 2007, 2011 and the MDG target 2015



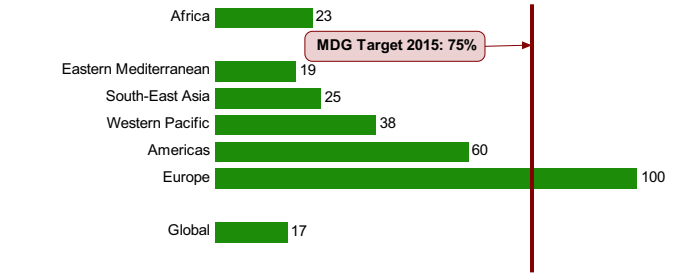
Countries of the African Region without data are not included in the chart.

Source : World Health Statistics 2013. Geneva: WHO, 2013

6.3 MDG-6 : Combat HIV/AIDS, malaria and other diseases

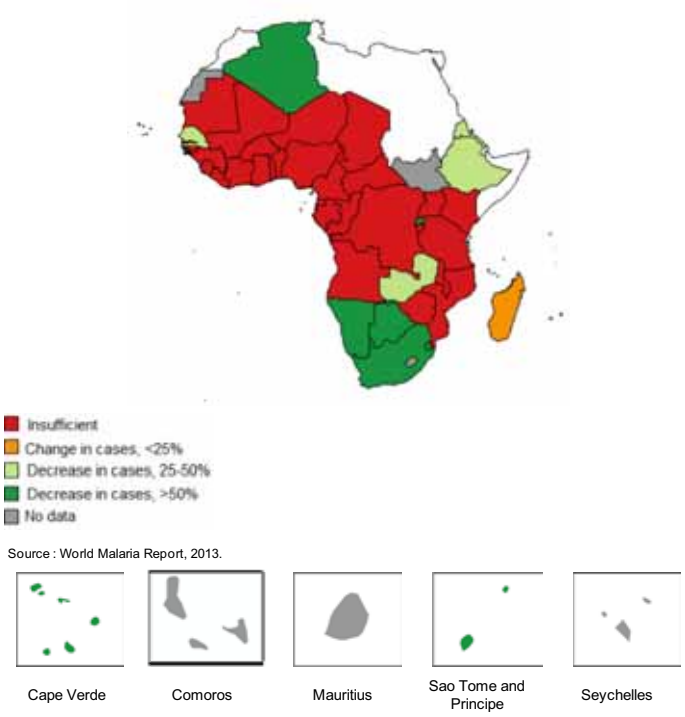
6.3.3 Target 6.C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases

Figure 6.3.3.1: Percentage of Malaria incidence reduction, by WHO Region, 2000- 2010 and the MDG target 2015



Source : World Malaria Report, 2013.

Figure 6.3.3.3: Classification of countries according to the achievement of the MDG Target on Malaria incidence reduction in the African Region, 2000-2010



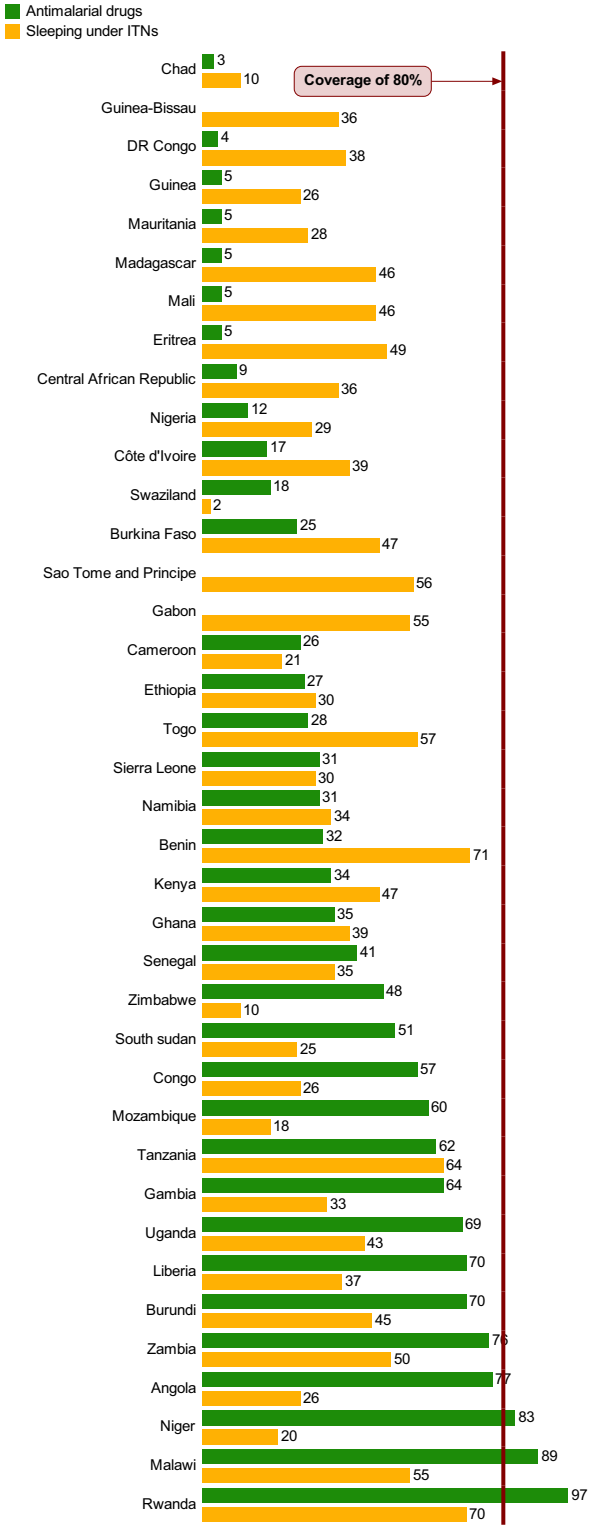
Source : World Malaria Report, 2013.

There are currently no countries that have achieved the MDG Target 2015. However, eight countries are on track to achieve that target : *Algeria, Botswana, Cape Verde, Namibia, Rwanda, Sao Tome and Principe, South Africa and Swaziland*

Notes:

The World Health Assembly target is to achieve a 75% reduction in malaria case incidence rates by 2015, compared to levels in 2000. A 75% reduction in malaria case incidence is equivalent to a 5 percentage point reduction against the baseline per year between 2000 and 2015. Thus, to be on track to achieve the targets, countries need to have reduced the incidence of malaria by at least 60% between 2000 and 2012.

Figure 6.3.3.2 : Percentage of children under 5 years of age sleeping under insecticide-treated bed nets and the Percentage of children under 5 years of age with fever being treated with antimalarial drugs in the African Region, 2008-2012



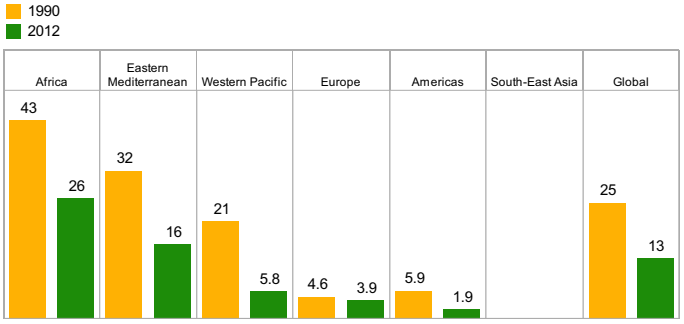
Countries of the African Region without data are not included in the chart.

Source : UNICEF global databases 2013

6.3 MDG-6 : Combat HIV/AIDS, malaria and other diseases

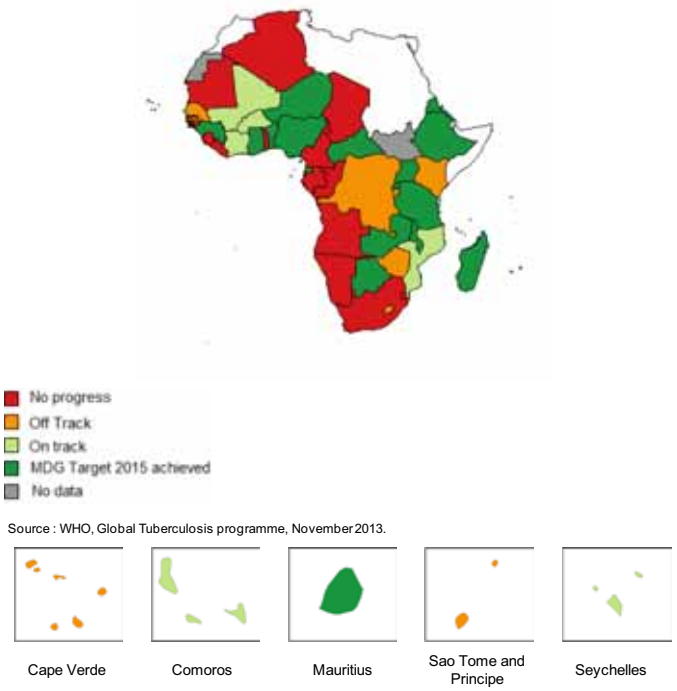
6.3.3 Target 6.C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases

Figure 6.3.3.4: Tuberculosis mortality rate (per 100 000 population per year) among HIV-negative people, by WHO Region, 1990 and 2012



Source : WHO, Global Tuberculosis programme, November 2013.

Figure 6.3.3.6: Classification of countries according to the achievement of the MDG Target on Tuberculosis mortality rate (per 100 000 population per year) among HIV-negative people in the African Region, 1990-2012



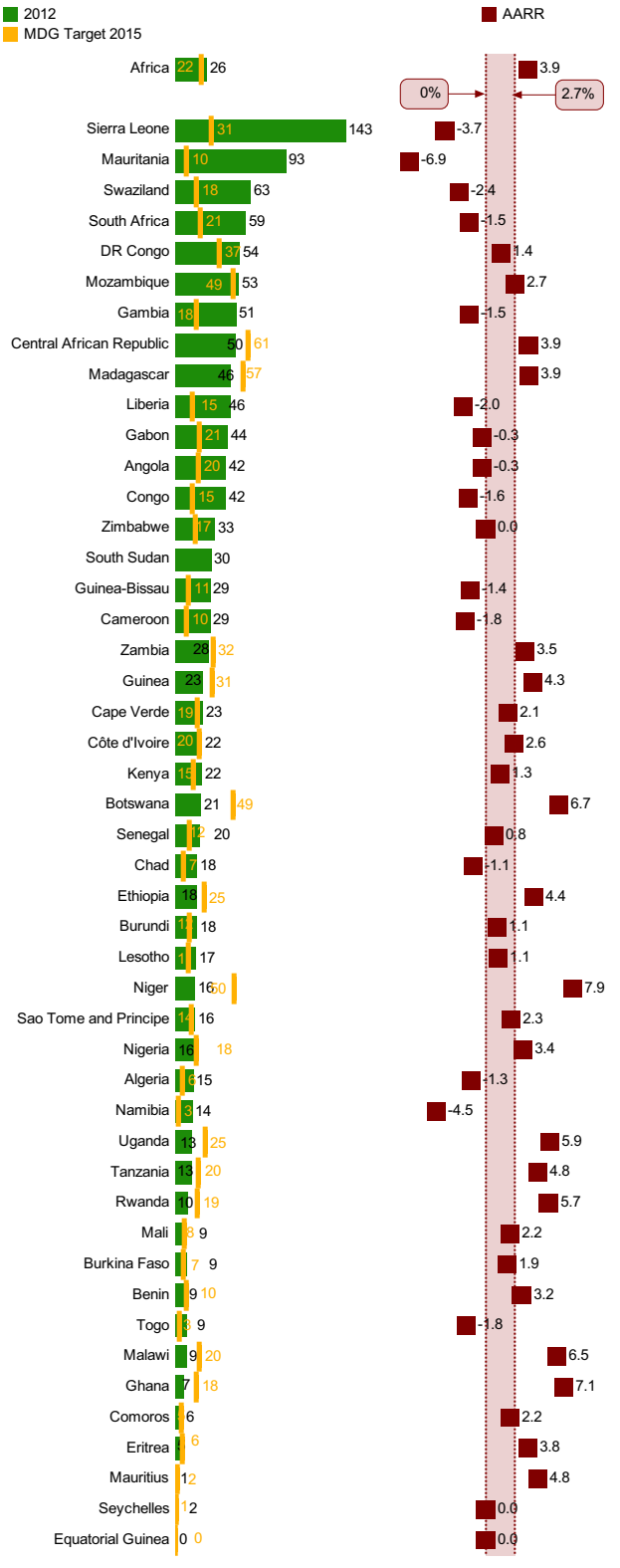
Source : WHO, Global Tuberculosis programme, November 2013.

Seventeen countries have achieved the MDG Target of a 50% reduction between 1990 and 2015:
Benin, Botswana, Central African Republic, Equatoriale Guinea, Eritrea, Ethiopia, Ghana, Guinea, Madagascar, Malawi, Mauritius, Niger, Nigeria, Rwanda, Tanzania, Uganda and Zambia

Notes:

In order to reach the target of a 50% reduction of mortality rate of tuberculosis between 1990 and 2015 set by the Stop TB Partnership, an AARR of 2.7% is needed. Thus,
On track: if AARR >= 2.7%
Off track: if AARR < 2.7% . However, an AARR<0 means **no progress**.

Figure 6.3.3.5 : Tuberculosis mortality rate (per 100 000 population per year) among HIV-negative people and the Annual average rate of reduction (AARR %), between 1990 and 2012, in the African Region

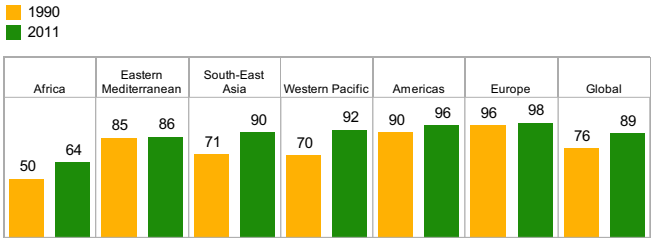


Source : WHO, Global Tuberculosis programme, November 2013.

6.4 MDG-7 : Ensure environmental sustainability

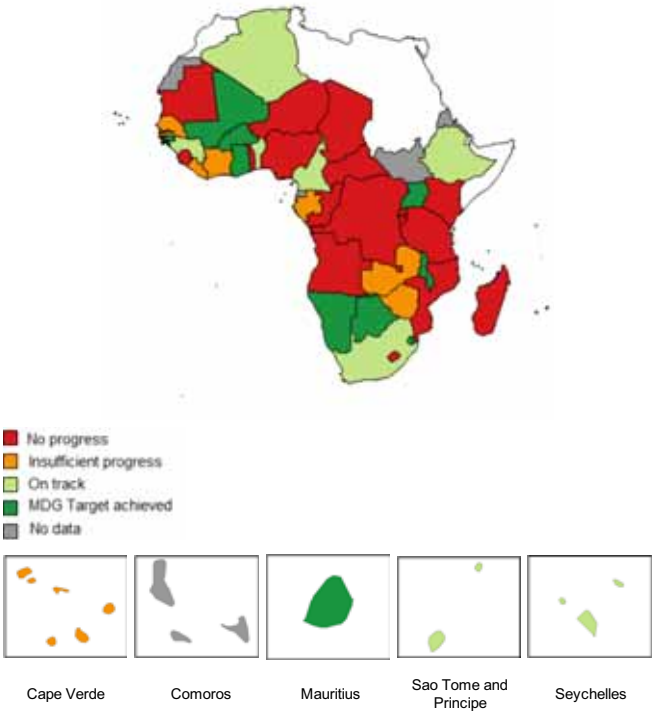
6.4.1 Target 7.C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation

Figure 6.4.1.1: Percentage of the population using improved drinking water sources, by WHO Region, 1990 and 2011



Source : World Health Statistics 2013. Geneva: WHO, 2013

Figure 6.4.1.3: Classification of countries according to the achievement of the MDG Target on Percentage of the population using improved drinking water sources in the African Region, 1990-2011



Source : World Health Statistics 2013. Geneva: WHO, 2013

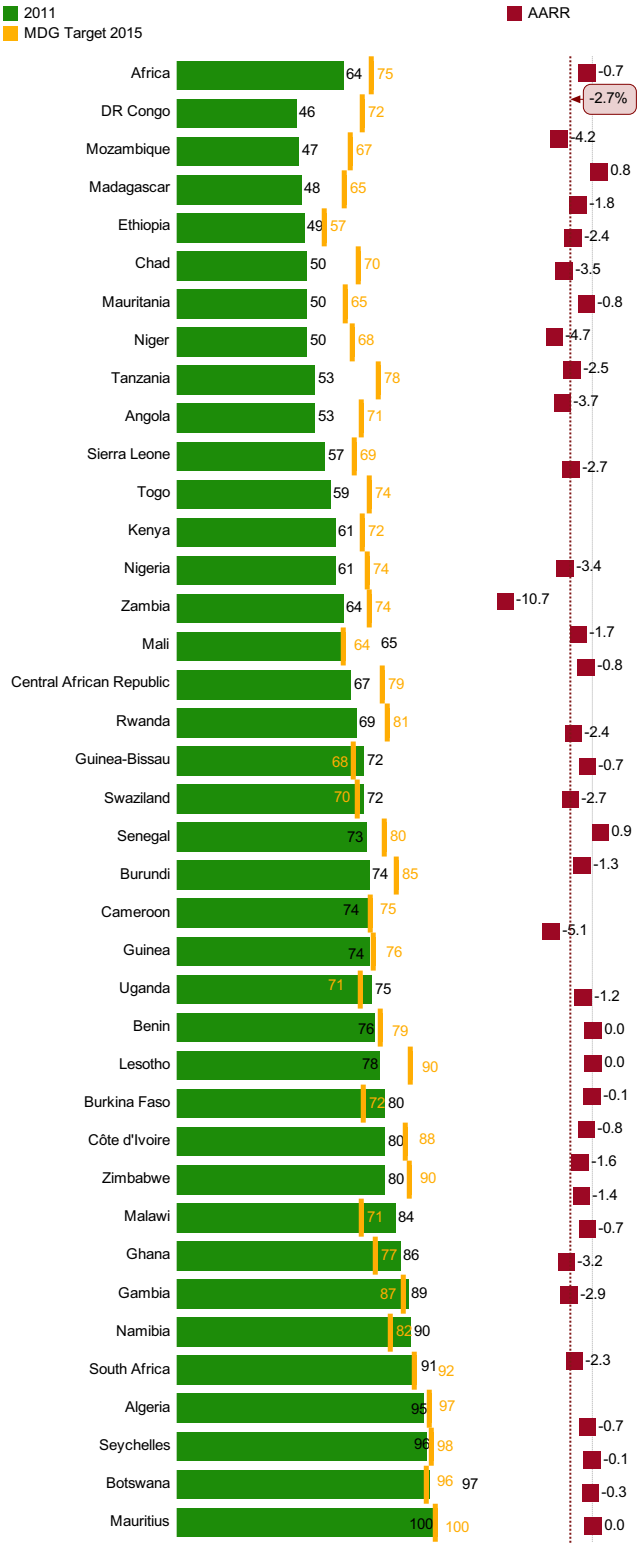
Eleven countries have achieved the MDG Target of a 50% reduction between 1990 and 2015:
Botswana, Burkina Faso, Gambia, Ghana, Guinea-Bissau, Malawi, Mali, Mauritius, Namibia, Swaziland and Uganda

Notes:

In order to reach the MDG target of halving, by 2015, the proportion of people without Sustainable access to safe drinking-water sources, an AARR of -2.7 % will be required.
If use of improved sources of drinking water in 2011 was below the rate nedeed for the country to reach the MDG target for: Less than 5% , or use was 95% or higher **(On track)**
: 5% to 10% **(Insufficient progress)**
: More than 10% or the 1990-2011 trend shows unchanged or decreasing use (**No progress)**

Countries of the African Region without data are not included in the chart.

Figure 6.4.1.2 : Percentage of the population using improved drinking water sources in the African Region, 2011, the MDG target 2015 and the Annual average rate of reduction (AARR %), between 1990 and 2011



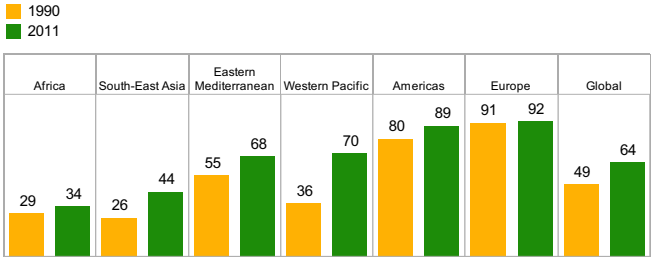
Source : World Health Statistics 2013. Geneva: WHO, 2013

Countries of the African Region without data are not included in the chart.

6.4 MDG-7 : Ensure environmental sustainability

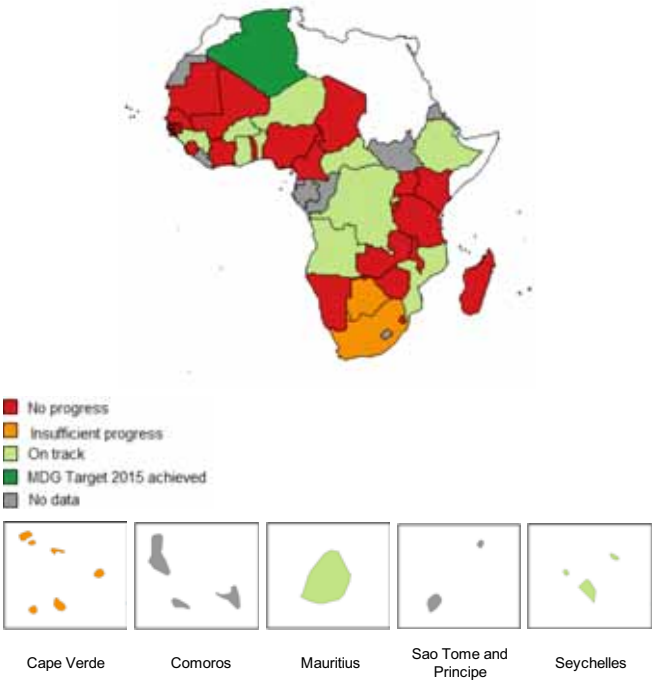
6.4.1 Target 7.C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation

Figure 6.4.1.4: Percentage of the population using improved sanitation facilities, by WHO Region, 1990 and 2011



Source : World Health Statistics 2013. Geneva: WHO, 2013

Figure 6.4.1.6: Classification of countries according to the achievement of the MDG Target on Percentage of the population using improved sanitation facilities in the African Region, 1990-2011



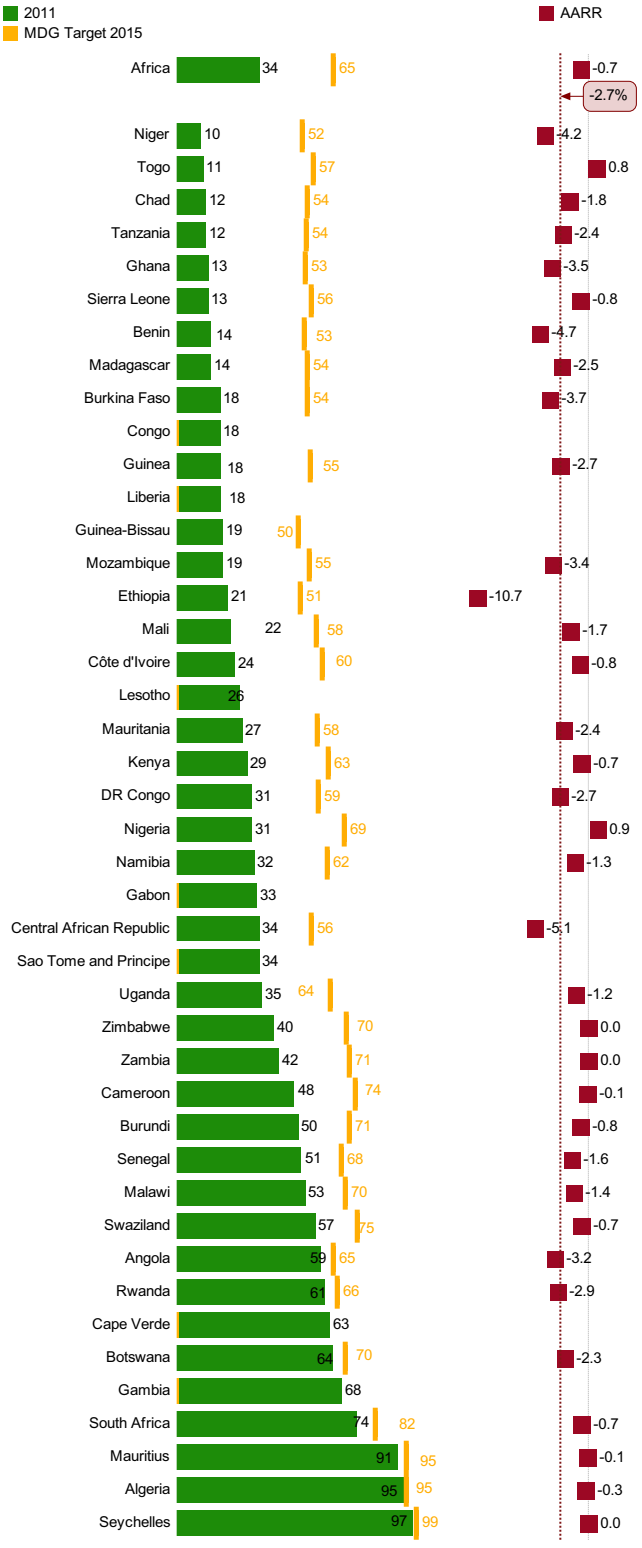
Source : World Health Statistics 2013. Geneva: WHO, 2013

One country has achieved the MDG Target of a 50% reduction between 1990 and 2015: **Algeria.** However, thirteen countries are on track to reach that target: *Angola, Benin, Burkina Faso, Central African Republic, DR Congo, Ethiopia, Ghana, Guinea, Mauritius, Mozambique, Niger, Rwanda and Seychelles.*

Notes:

In order to reach the MDG target of halving, by 2015, the proportion of people without Sustainable access to basic sanitation, an AARR of -2.7 % will be required.
If use of improved sanitation facilities in 2011 was below the rate nedeed for the country to reach the MDG target
for: Less than 5% , or use was 95% or higher **(On track)**
: 5% to 10% **(Insufficient progress)**
: More than 10% or the 1990-2011 trend shows unchanged or decreasing use (**No progress)**

Figure 6.4.1.5 : Percentage of the population using improved sanitation facilities in the African Region, 2011, the MDG target 2015 and the Annual average rate of reduction (AARR %), between 1990 and 2011



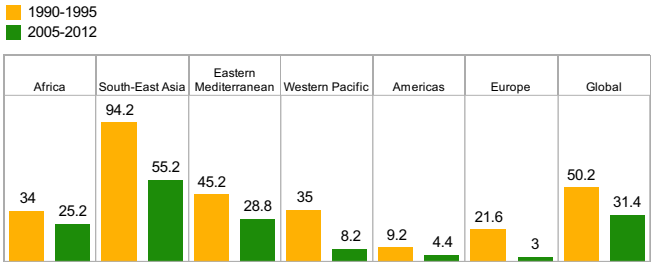
Source : World Health Statistics 2013. Geneva: WHO, 2013

Countries of the African Region without data are not included in the chart.

6.5 MDG-1 : Eradicate extreme poverty and hunger

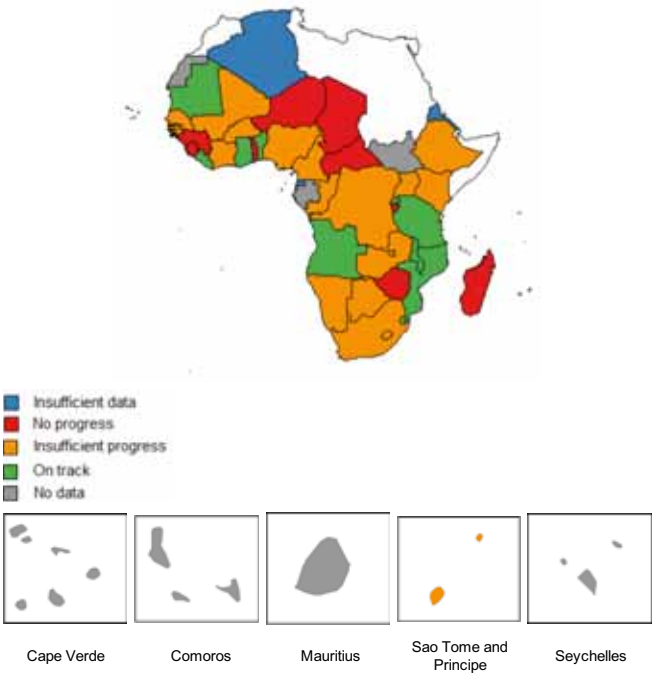
6.5.1 Target 1.C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger

Figure 6.5.1.1: Percentage of underweight children under 5 years of age, by WHO Region, 1990-1995 and 2005-2012



Source : UNICEF, 2013

Figure 6.5.1.3: Classification of countries according to the achievement of the MDG Target on Percentage of underweight children under 5 years of age in the African Region, 1990-2012



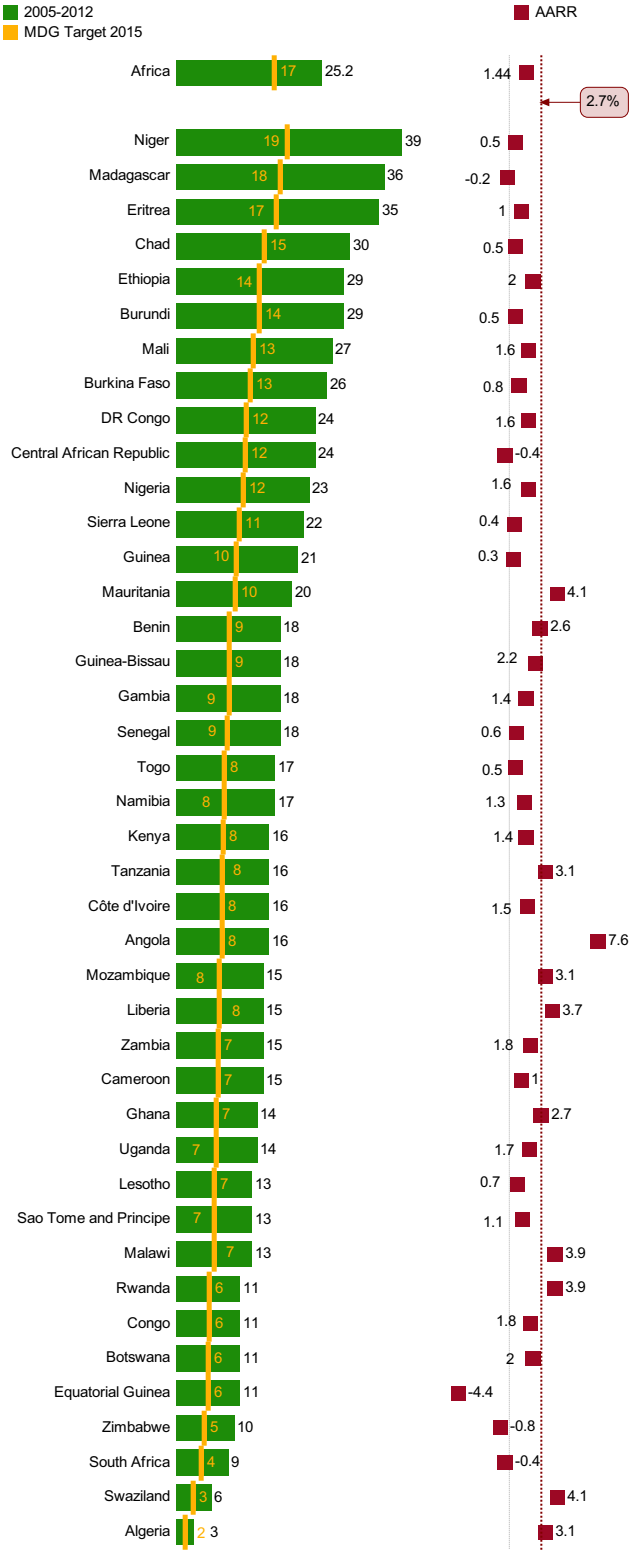
Source : UNICEF, 2013

There are currently no countries that have achieved the MDG Target 2015. However, ten countries are on track to reach that target: *Angola, Benin, Ghana, Liberia, Malawi, Mauritania, Mozambique, Rwanda, Swaziland and Tanzania*

Notes:

In order to reach the MDG target of halving, by 2015, the proportion of people who suffer from hunger, an AARR of 2.7 % is needed.
Thus, countries are classified as:
On track: if AARR in underweight prevalence is greater than or equal to 2.6% or latest available estimate of under-weight prevalence is less than or equal to 5% regardless of AARR.**Insufficient progress:** AARR is between 0.6% and 2.5%.**No progress:** AARRis less than or equal to 0.5%

Figure 6.5.1.2: Percentage of underweight children under 5 years of age in the African Region, 2005-2012, the MDG target 2015 and the Annual average rate of reduction (AARR %), between 1990 and 2012



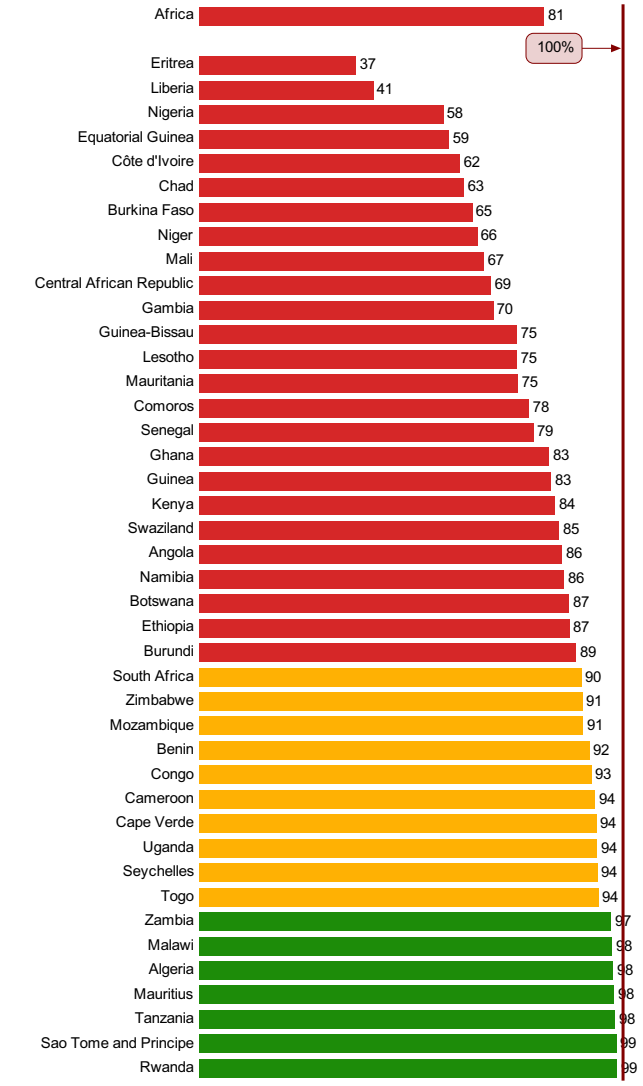
Source : UNICEF,2013

Countries of the African Region without data are not included in the chart.

6.6 MDG-2 : Achieve Universal Primary Education

6.6.1 Target 2.A: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling

Figure 6.6.1.1: Percentage of net enrolment ratio in primary education, in the African Region, 2007-2012 and the MDG target 2015



Source: UNESCO, 2013

Countries of the African Region without data are not included in the chart.

No progress
Insufficient progress
On track

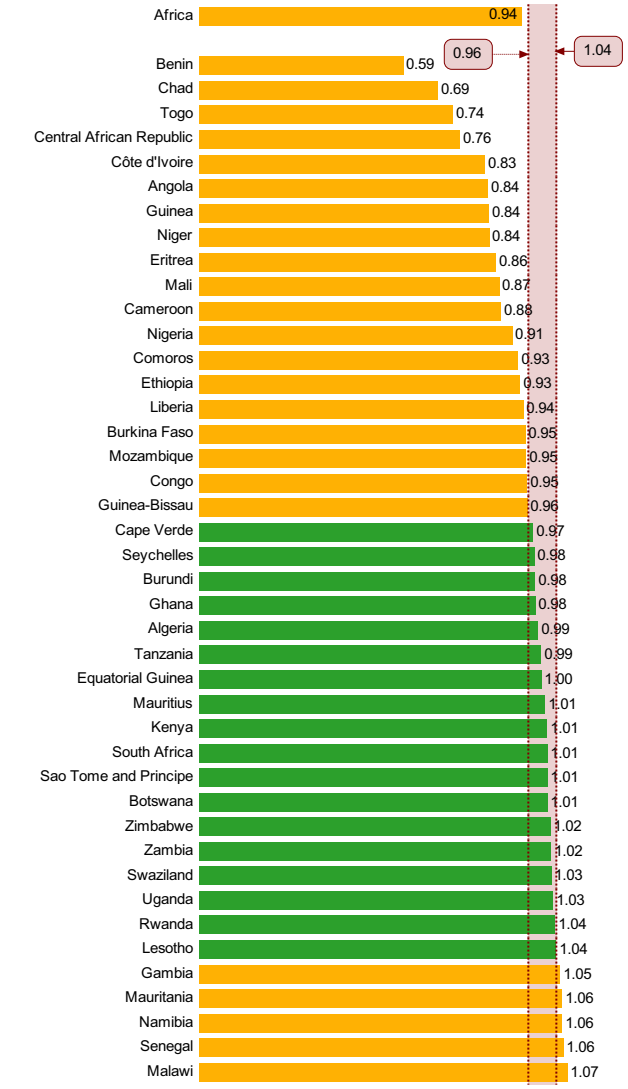
Notes:

Countries were classified based on their total primary net enrolment ratio or net attendance ratio (NE/AR). **On track:** Latest available NE/AR or projected NE/AR for 2015 is greater than or equal to 95 per cent. **Insufficient progress:** Latest available NE/AR is greater than or equal to 90 per cent and less than 95 per cent and projected NE/AR for 2015 is less than 95 per cent; or latest available NE/AR is less than 90 per cent and projected NE/AR for 2015 is greater than or equal to 90 per cent and less than 95 per cent. **No progress:** Latest available NE/AR is less than 90 per cent and projected NE/AR for 2015 is less than 90 per cent.

6.7 MDG-3 : Promote Gender Equality And Empower Women

6.7.1 Target 3.A: Eliminate gender disparity in primary and secondary education, preferably by, 2005, and in all levels of education no later than 2015

Figure 6.7.1.1: The gender parity index in percentage of net enrolment ratio in primary education in the African Region, 2007-2012



Source: UNESCO, 2013

Countries of the African Region without data are not included in the chart.

Insufficient progress
On track

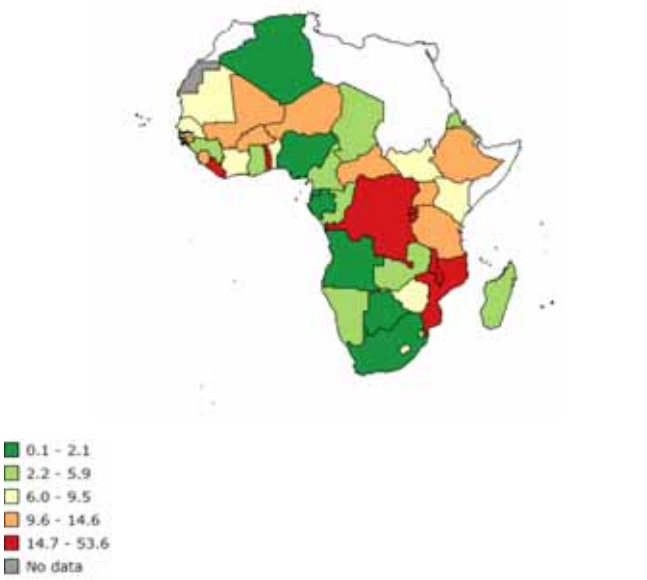
Notes:

The gender parity index (GPI) is obtained by dividing the net enrolment rates for girls by the net enrolment rates for boys. GPI of 0.96 to 1.04 means that the percentages of boys and girls in school are roughly equal. GPI of more than 1.04 means that the percentage of girls in school is higher than the percentage of boys in school. GPI of less than 0.96 means that the percentage of boys is higher than the percentage of girls in school. Countries are classified based on their gender parity index. **On track:** Latest available GPI is greater than or equal to 0.96 and less than or equal to 1.04. **Insufficient progress:** Latest available GPI is less than 0.96 or greater than 1.04.

6.8 MDG-8 : Develop a global partnership for development

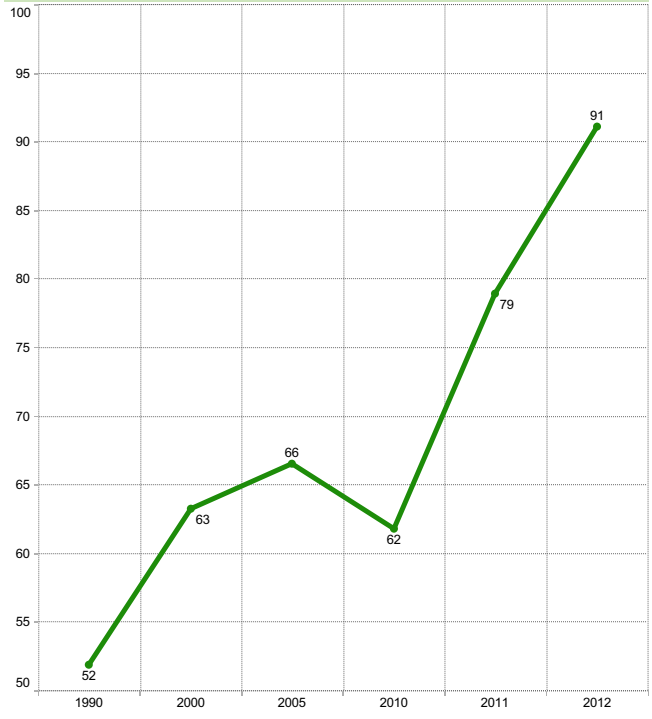
6.8.1 Target 8.A: Develop further an open, rule-based, non discriminatory trading and financial system

Figure 6.8.1.1 : Official development assistance (ODA) received as percentage of GDP in the African Region, by country, 2011



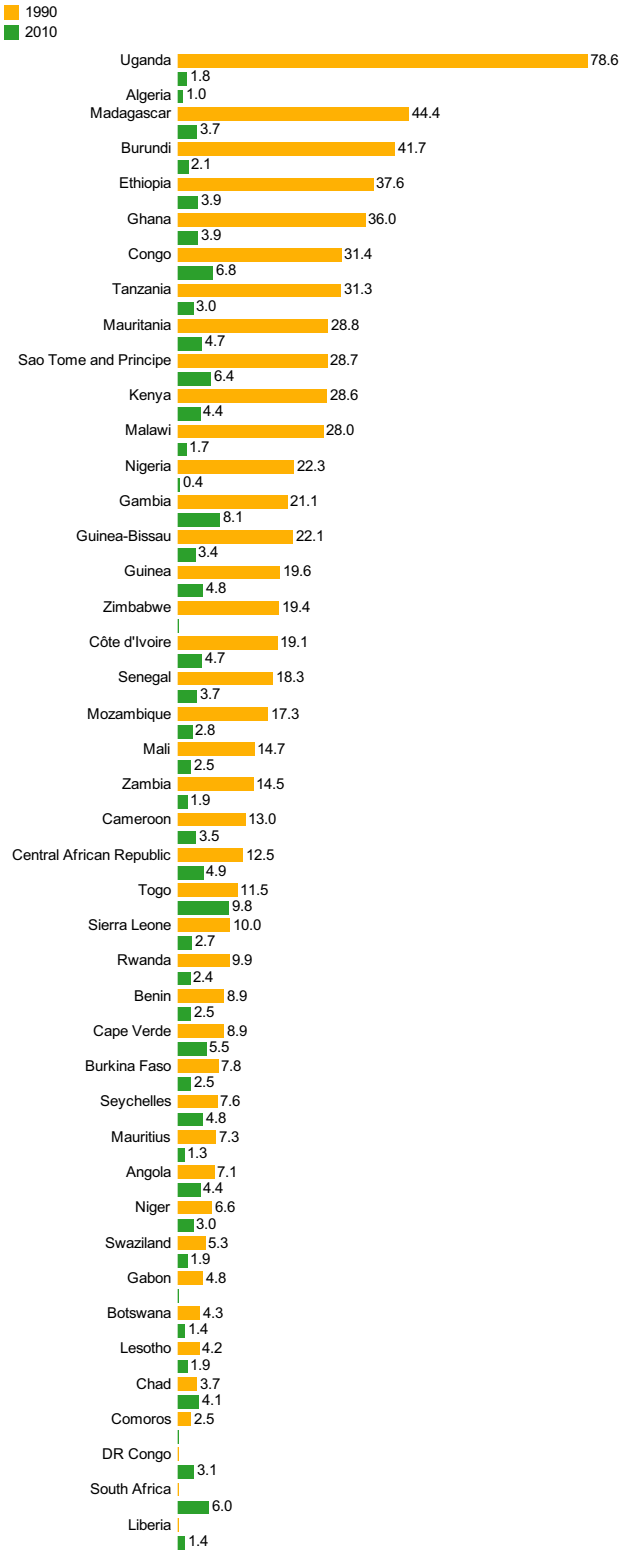
Source : World Bank, September 2013

Figure 6.8.1.3 : Trade (% of GDP) in Sub-Saharian Africa, 1990-2012



Source : World Bank, 2012

Figure 6.8.1.2 : Total debt service as percentage of exports of goods, services and income in the African Region, by country,1990 and 2010



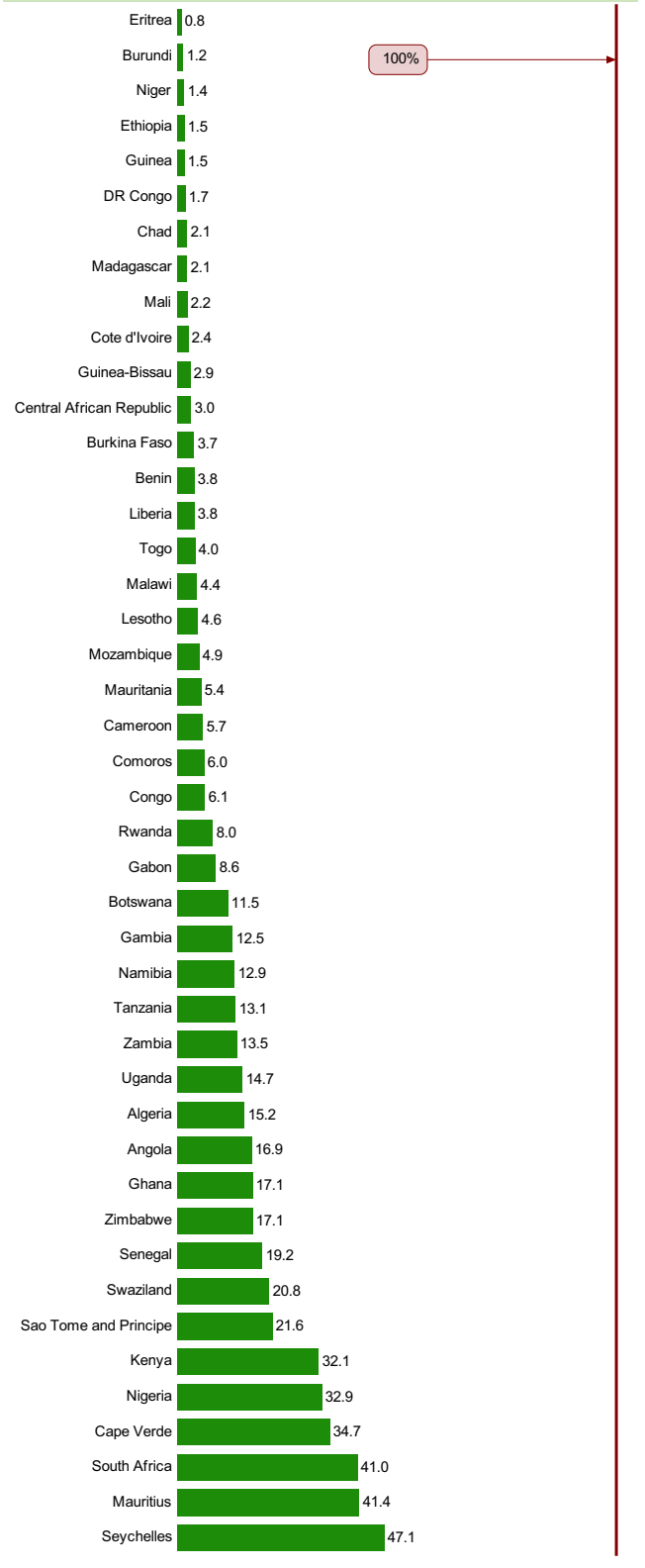
Source : World Bank, September 2013

Countries of the African Region without data are not included in the chart.

6.8 MDG-8 : Develop a global partnership for development

6.8.2 Target 8.F: In cooperation with the private sector, make available the benefits of new technologies, especially information and communications

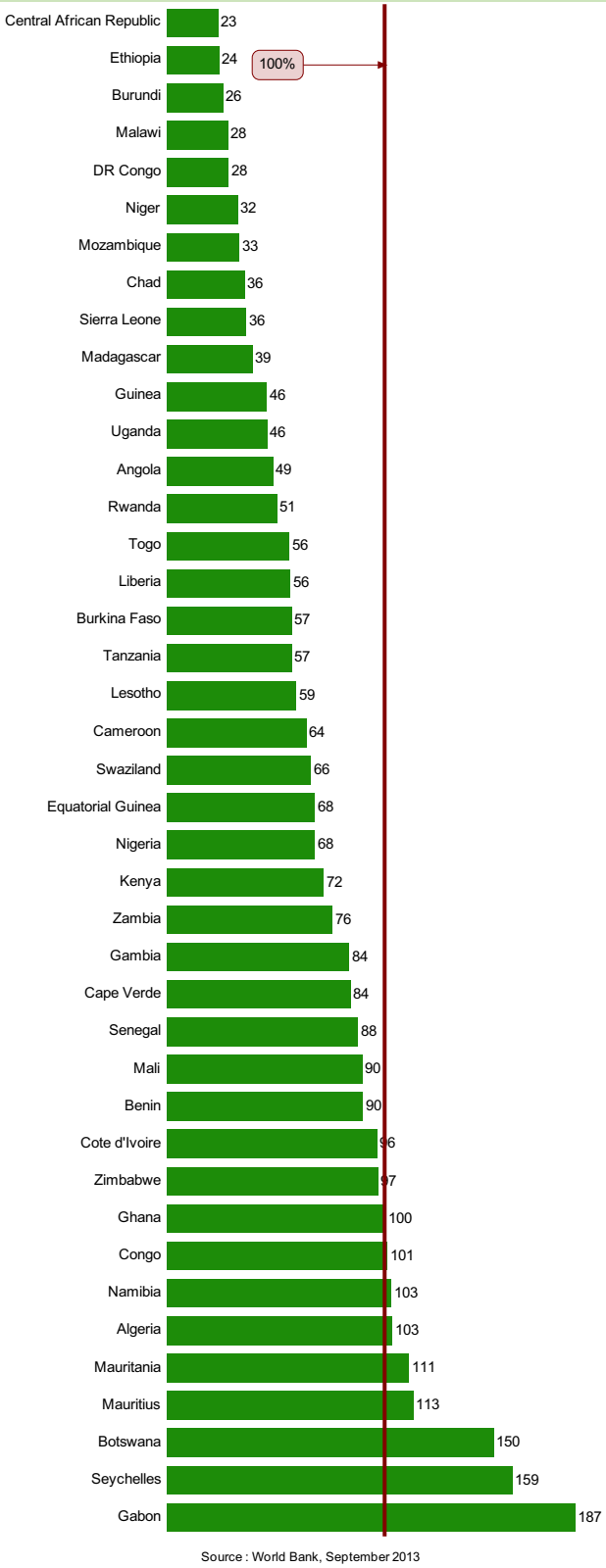
Figure 6.8.2.1: Percentage of the population who are Internet users in the African Region, 2012



Source : World Bank, September 2013

Countries of the African Region without data are not included in the chart.

Figure 6.8.2.2 : Percentage of population who are cellular or mobile subscribers in the African Region, 2012



Source : World Bank, September 2013

Countries of the African Region without data are not included in the chart.

7. Explanatory notes

The following provides the definition of the health statistics categories included in this volume, as well as the rationale for their inclusion and the estimation methods used in their production.

Health status

1. Life expectancy at birth

Rationale for use: Life expectancy at birth reflects the overall mortality level of a population. It summarizes the mortality pattern that prevails across all age groups, children and adolescents, adults and the elderly.
Definition: Average number of years that a newborn is expected to live if current mortality rates continue to apply.
Methods of estimation: WHO has developed a model life table based on about 1800 life tables from vital registration judged to be of good quality. For countries with vital registration, the level of completeness of recorded mortality data in the population is assessed and mortality rates are adjusted accordingly. Where vital registration data for 2003 were available, these were used directly to construct the life table. For countries where the information system provided a time series of annual life tables, parameters from the life table were projected using a weighted regression model, giving more weight to recent years. Projected values of the two life table parameters were then applied to the modified logit life table model, where the most recent national data provided an age pattern, to predict the full life table for 2003. In case of inadequate sources of age-specific mortality rates, the life table is derived from estimated under-5 mortality rates and adult mortality rates that are applied to a global standard (defined as the average of all the 1800 life tables using a modified logit model).
Source: Life Tables for WHO Member States. Geneva, WHO, 2010.
Available at: www.who.int/whosis/database/life_tables/life_tables.cfm.

2. Healthy life expectancy (HALE)

Rationale for use: Substantial resources are devoted to reducing the incidence, duration and severity of major diseases that cause morbidity but not mortality and to reducing their impact on people's lives. It is important to capture both fatal and nonfatal health outcomes in a summary measure of average levels of population health. Healthy life expectancy (HALE) at birth adds up expectation of life for different health states, adjusted for severity distribution, making it sensitive to changes over time or differences between countries in the severity distribution of health states.
Definition: Average number of years that a person can expect to live in 'full health' by taking into account years lived in less than full health due to disease and/or injury.
Methods of estimation: Since comparable health state prevalence data are not available for all countries, a four-stage strategy is used. Data from the WHOGBD study are used to estimate severity adjusted prevalence by age and sex for all countries. Data from the WHOMCSS and WHS are used to make independent estimates of severity-adjusted prevalence by age and sex for survey countries. Prevalence for all countries is calculated based on GBD, MCSS and WHS estimates. Life tables constructed by WHO are used with Sullivan's method to compute HALE for countries. HALE estimates use methods described in the statistical annex to the World Health Report 2004. Estimates for 2007 have been revised to take into account the Global Burden of Disease estimates for Member States for the year 2004 and may not be entirely comparable with those for 2002 published in World Health Statistics 2007. Income-group aggregates are based on the 2008 World Bank list of economies.

3. Adult mortality rate (Probability of dying (per 1000) between ages 15 and 60 years)

Rationale for use: Disease burden from noncommunicable diseases among adults – the most economically productive age span – is rapidly increasing in developing countries owing to ageing and health transitions. Therefore, the level of adult mortality is becoming an important indicator for the comprehensive assessment of the mortality pattern in a population.
Definition: Probability that a 15-year-old person will die before reaching his/her 60th birthday. Mortality data: World Health Organization, 2010(www.who.int/healthinfo/statistics/mortality/en/).

4. Under-5 mortality rate (Probability of dying (per 1000) under age 5 years) / Infant mortality rate (Probability of dying (per 1000) under age one year)

Rationale for use: Under-5 and infant mortality rates are leading indicators of the level of child health and overall development in countries. They are also MDG indicators.
Definition: The under-5 mortality rate is the probability of a child born in a specific year or period dying before reaching the age of 5, if subject to age-specific mortality rates of that period. The infant mortality rate is the probability of a child born in a specific year or period dying before reaching the age of one, if subject to age-specific mortality rates of that period.
Methods of estimation: Empirical data from different sources are consolidated to obtain estimates of the level and trend in under-5 mortality by fitting a curve to the observed mortality points. However, to obtain the best possible estimates, judgement needs to be made on data quality and how representative it is of the population. Recent statistics based on data availability in most countries are point estimates dated by at least 3–4 years, which need to be projected forward in order to obtain estimates of under-5 mortality for the current year. Those are then converted to their corresponding infant mortality rates through model life table systems: the one developed by WHO for countries with adequate vital registration data and Coale–Demeny model life tables for the other countries. It should be noted that the infant mortality data from surveys are exposed to recall bias; hence their estimates are derived from under-5 mortality, which leads to a supplementary step to estimate infant mortality rates.

5. Maternal mortality ratio (per 100 000 live births)

Rationale for use: Complications during pregnancy and childbirth are leading causes of death and disability among women of reproductive age in developing countries. The maternal mortality ratio (MMR) represents the risk associated with each pregnancy, i.e. the obstetric risk. It is also an MDG indicator for monitoring Goal 5 of improving maternal health.
Definition: Number of maternal deaths per 100 000 live births during a specified time period, usually one year.
Methods of estimation: Measuring maternal mortality accurately is difficult except where comprehensive registration of deaths and their causes exists. Elsewhere, censuses or surveys can be used to measure levels of maternal mortality. Data derived from health services records are problematic where not all births take place in health facilities, because of biases whose dimensions and direction cannot be determined. Reproductive age mortality studies (RAMOS) use triangulation of different sources of data on deaths of women of reproductive age, including record review and/or verbal autopsy, to accurately identify maternal deaths. Based on multiple sources of information, RAMOS are considered the best way to estimate levels of maternal mortality. Estimates derived from household surveys are usually based on information retrospectively collected about the deaths of sisters of the respondents and could refer back up to an average 12 years, and they are subject to wide confidence intervals. For countries without any reliable data on maternal mortality, statistical models are applied. Global and regional estimates of maternal mortality are developed every 5 years, using a regression model.
Sources: (i) Towards Reaching Health-Related Millennium Development Goals: Progress Report and Way Forward. Report of the Regional Director. Brazzaville : WHO Regional Office for Africa, 2009. (ii) Maternal Mortality in 2005. Estimates Developed by WHO, UNICEF, UNFPA and the World Bank. Geneva: WHO, 2008.
Available at : http://whqlibdoc.who.int/publications/2007/9789241596213_eng.pdf.

6. Age-standardized death rates per 100 000 population by cause

Rationale for use: The numbers of deaths per 100 000 population are influenced by the age distribution of the population. Two populations with the same age-specific mortality rates for a cause of death will have different overall death rates if the age distributions of their populations are different. Age-standardized mortality rates adjust for differences in population age distribution by applying the observed age-specific mortality rates for each population to a standard population.
Definition: The age-standardized mortality rate is 0 a weighted average of the age-specific mortality rates per 100 000 persons, where the weights are the proportions of persons in the corresponding age groups of the WHO standard population. Rates are age-standardized to WHO's World Standard Population. See Age Standardization of Rates: A New WHO Standard. Geneva, WHO, 2001 (GPE Discussion Paper Series No. 31).
Available at: www.who.int/healthinfo/paper31.pdf.

7. Years of life lost (percentage of total)

Rationale for use: Years of life lost (YLL) take into account the age at which deaths occur by giving greater weight to deaths at younger age and lower weight to deaths at older age. The years of life lost (percentage of total) indicator measures the YLL due to a cause as a proportion of the total YLL lost in the population due to premature mortality.
Definition: YLL are calculated from the number of deaths multiplied by a standard life expectancy at the age at which death occurs. The standard life expectancy used for YLL at each age is the same for deaths in all regions of the world and is the same as that used for the calculation of disability-adjusted life-years (DALYs). Additionally, 3% time discounting and non-uniform age weights that give less weight to years lived at young and older ages were used as for the DALY. With non-uniform age weights and 3% discounting, a death in infancy corresponds to 33 YLL, and deaths at ages 5–20 to around 36 YLL.
Source: Mortality and Burden of Disease Estimates for WHO Member States in 2004. Geneva, WHO, 2009.
Available at: www.who.int/entity/healthinfo/statistics/bodgbddeathdalyestimates.xls. Communicable diseases include maternal causes, conditions arising during the perinatal period and nutritional deficiencies. Income-group aggregates are based on the 2004 World Bank list of economies. Individual percentages may not add up to 100% owing to rounding

8. The disability-adjusted life-year (DALY)

Rationale for use: DALY is a health gap measure that extends the concept of potential years of life lost due to premature death (PYLL) to include equivalent years of 'healthy' life lost by virtue of being in states of poor health or disability. DALYs for a disease or health condition are calculated as the sum of the years of life lost due to premature mortality (YLL) in the population and the years lost due to disability (YLD) for incident cases of the health condition.
Methods of estimation: Life tables specifying all-cause mortality rates by age and sex for 192 WHO Member States were developed for 2002 from available death registration data, sample registration systems (India and China) and data on child and adult mortality from censuses and surveys. Cause-of-death distributions were estimated from death registration data for 107 countries, together with data from population-based epidemiological studies, disease registers and notification systems for selected specific causes of death. Causes of death for populations without useable death registration data were estimated using cause-of-death models together with data from population-based epidemiological studies, disease registers and notification systems for 21 specific causes of death.

9. Causes of death among children under 5 years of age (%)

Rationale for use: MDG4 consists in the reduction of under-5 mortality by two-thirds in 2015, from its level in 1990. Child survival efforts can be effective only if they are based on reasonably accurate information about the causes of childhood deaths.

Cause-of-death information is needed to prioritize interventions and plan for their delivery, to determine the effectiveness of disease-specific interventions, and to assess trends in disease burden in relation to national and international goals.
Definition: The cause(s) of death (CoD) as entered on the medical certificate of cause of death in countries with civil (vital) registration system. The underlying CoD is being analysed. In countries with incomplete or no civil registration, causes of death are those reported as such in epidemiological studies that use verbal autopsy algorithms to establish CoD.
Methods of estimation: CoD data from civil registration systems were evaluated for their completeness. Complete and nationally representative data were then grouped by ICD codes into the cause categories, and their proportions to total under-5 deaths were then computed. For countries with incomplete or no data, the distribution of deaths by cause was estimated in two steps. In the first step, a statistical model was used to assign deaths to one of three broad categories of causes: communicable diseases; non-communicable diseases; or injuries and external causes.
In a second step, cause-specific under-5 mortality estimates from the Child Health Epidemiology Reference Group (CHERG), WHO Technical Programmes and the Joint United Nations Programme on HIV/AIDS (UNAIDS) were taken into account in assigning the distribution of deaths to specific causes. A variety of methods, including proportional mortality and natural history models, were used by CHERG and WHO to develop countrylevel cause-specific mortality estimates. All CHERG working groups developed comparable and standardized procedures to generate estimates from the databases.
Source: Mortality Data. Geneva, WHO, 2010. Available at: www.who.int/healthinfo/statistics/mortality/en/.

The health system

Health system outcomes

10. Family planning needs satisfied (%)

Definition : Proportion of all women aged 15-49 using contraception among those who are fecund, in union and in need of contraception. Women in need of contraception include those that do not want any more children or that want to wait two or more years before having another child.
Numerator: Number of women aged 15-49 that are fecund and are married / have a partner and need contraception, who use any kind of contraceptive (modern or traditional).
Denominator: Total number of women aged 15-49 that are fecund and are married / have a partner and need contraception.
Method of estimation : Data are derived from re-analysis of Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS) micro-data which are publicly available using the standard indicator definitions as published in DHS or Unicef documentation. The analysis was done by the International Center for Analysis and Monitoring of Equity in Health and Nutrition based in the Federal University of Pelotas, Brazil.

11. Neonates protected at birth against neonatal tetanus (PAB) (%)

Rationale for use: Immunization is an essential component for reducing under-five mortality. Immunization coverage estimates are used to monitor coverage of immunization services and to guide disease eradication and elimination efforts.
Definition: The proportion of neonates in a given year that can be considered as having been protected against tetanus as a result of maternal immunization.
Method of estimation: PAB coverage is estimated using a mathematical model. PAB is the proportion of births in a given year that can be considered as having been protected against tetanus as a result of maternal immunization.
Source: UNICEF and WHO; WHO Global Health Observatory Data Repository. Data extracted on 2013-06-12 14:57:27.0. http://apps.who.int/gho/data/node.main.A824?lang=en

Health financing system

12. Total expenditure on health as percentage of gross domestic product (GDP)

13. Per capita total expenditure on health at international dollar rate

14. General government expenditure on health as percentage of total general government expenditure

Rationale for use: Health financing is a critical component of health systems. National health accounts (NHAs) provide a large set of indicators based on the expenditure information collected within an internationally recognized framework. NHAs are a synthesis of the financing and spending flows recorded in the operation of a health system, from funding sources to the distribution of funds across providers and functions of health systems and benefits across geographic, demographic, socioeconomic and epidemiological dimensions.
Definitions:
- Total health expenditure as percentage of GDP
- Percentage of total general government expenditure that is spent on health
- Per capita total expenditure on health at international dollar rate

Methods of estimation: Only about 95 countries either have produced a full NHA or report expenditure on health to the Organisation for Economic Cooperation and Development (OECD). Standard accounting estimation and extrapolation techniques have been used to provide time series. The principal international references used are the International Monetary Fund (IMF) Government Finance Statistics and International Financial Statistics; OECD Health Data and International

Development Statistics; and the United Nations National Accounts Statistics. National sources include national health accounts reports, public expenditure reports, statistical yearbooks and other periodicals, budgetary documents, national accounts reports, statistical data on official websites, central bank reports, non-governmental organization reports, academic studies, and reports and data provided by central statistical offices and ministries.
Source: WHO National Health Accounts (NHA), Country Health Expenditure Database. Geneva: WHO, February 2010. Available at: www.who.int/nha/country/. The regional, income and global figures are calculated using Purchasing Power Parity (PPP) terms. When the number is smaller than 0.05%, the percentage may appear as zero. For per capita expenditure indicators, this is represented as <1. In countries where the fiscal year begins in July, expenditure data have been allocated to the later calendar year (for example, 2008 data will cover the fiscal year 2007–08). Absolute values of expenditures are expressed in nominal terms (current prices). National currency units per US$ are calculated using the average exchange rates for the year. For 2008, the use of yearly average exchange rates (compared with year-end exchange rates) may not fully represent the impact of the global financial crisis.

15. General government expenditure on health as percentage of total expenditure on health

16. General government expenditure on health as percentage of total government expenditure

17. External resources for health as percentage of total expenditure on health

18. Out-of-pocket expenditure as percentage of private expenditure on health

19. Per capita total expenditure on health at average exchange rate (US$)

20. Per capita government expenditure on health at average exchange rate (US$)

21. Per capita government expenditure on health at international dollar rate

Rationale for use: Health financing is a critical component of health systems. NHAs provide a large set of indicators based on the expenditure information collected within an internationally recognized framework. NHAs are a synthesis of the financing and spending flows recorded in the operation of a health system, from funding sources to the distribution of funds across providers and functions of health systems and benefits across geographic, demographic, socioeconomic and epidemiological dimensions.
Definitions: Key indicators for which the data are available:
- Level of total expenditure on health as percentage of GDP, and per capita health expenditures in US dollars and in international dollars.
- Distribution of public and private sectors in financing health and their main components, such as:
*Extent of social and private health insurance
*Burden on households through out-of-pocket spending
*Reliance on external resources in financing health
Associated terms:
-Gross domestic product (GDP) is the value of all goods and services provided in a country by residents and non-residents. This corresponds to the total sum of expenditure (consumption and investment) of the private and government agents of the economy during the reference year.
-General government expenditure (GGE) includes consolidated direct outlays and indirect outlays, such as subsidies and transfers, including capital, of all levels of government social security institutions, autonomous bodies, and other extrabudgetary funds.
-Total expenditure on health (THE) is the sum of general government health expenditure and private health expenditure in a given year, calculated in national currency units in current prices. It comprises the outlays earmarked for health maintenance or for restoration or enhancement of the health status of the population, paid for in cash or in kind.
-General government expenditure on health (GGHE) is the sum of outlays by government entities to purchase health care services and goods. It comprises the outlays on health by all levels of government and by social security agencies, and direct expenditure by parastatals and public firms. Expenditures on health include final consumption, subsidies to producers and transfers to households(chiefly reimbursements for medical and pharmaceutical bills). It includes both recurrent and investment expenditures (including capital transfers) made during the year. Besides domestic funds, it also includes external resources (mainly as grants passing through the government or loans channelled through the national budget).
-Social security expenditure on health (SSHE) includes outlays for purchases of health goods and services by schemes that are mandatory and controlled by government. Such social security schemes that apply only to a selected group of the population, such as public sector employees only, are also included here.
-External resources health expenditure (ExtHE) includes all grants and loans, whether passing through governments or private entities for health goods and services, in cash or in kind.
- Private health expenditure (PvtHE) is defined as the sum of expenditures on health by the following entities:
*Prepaid plans and risk-pooling arrangements (PrepaidHE) are the outlays of private insurance schemes and private social insurance schemes (with no government control over payment rates and participating providers, but with broad guidelines from government)
*Firms expenditure on health are the outlays by private enterprises for medical care and health-enhancing benefits other than payment to social security or other prepaid schemes.

*Non-profit institutions serving mainly households are the outlays of those entities whose status do not permit them to be a source of financial gain for the units that establish, control or finance them. This includes funding from internal and external sources.
*Household out-of-pocket spending (OOPS) comprises the direct outlays of households, including gratuities and in-kind payments made to health practitioners and to suppliers of pharmaceuticals, therapeutic appliances, and other goods and services. This includes household direct payments to public and private providers of health care services, nonprofit institutions, and non-reimbursable cost sharing, such as deductibles, copayments and fee for services.
- Exchange rate is the annual average or year-end number of units at which a currency is traded in the banking system.
- International dollars are derived by dividing local currency units by an estimate of their Purchasing Power Parity (PPP) compared with the US dollar, i.e. the measure that minimizes the consequences of differences in price levels between countries.
Methods of estimation and sources: About 100 countries either have produced full national health accounts or report expenditure on health to the OECD. Standard accounting estimation and extrapolation techniques have been used to provide time series (1998–2004). Ministries of Health have responded to the draft updates sent for their inputs and comments. For details on sources and methods, see www.who.int/nha.

Service delivery

22. Treatment success rate for new pulomary smear-negative and extrapulmonary tuberculosis cases

Rationale for use : Treatment success is an indicator of the performance of national TB control programmes. In addition to the obvious benefit to individual patients, successful treatment of infectious cases of TB is essential to prevent the spread of the infection. Detecting and successfully treating a large proportion of TB cases should have an immediate impact on TB prevalence and mortality. By reducing transmission, successfully treating the majority of cases will also affect, with some delay, the incidence of disease.
Definition : The proportion of new smear-negative and extrapulmonary (or smear unknown/not done) TB cases registered under a national TB control programme in a given year that successfully completed treatment (without bacteriological evidence of success, ie “treatment completed”).
At the end of treatment, each patient is assigned one of the following five mutually exclusive treatment outcomes: completed; died; failed; defaulted; and transferred out with outcome unknown. The proportions of cases assigned to these outcomes, plus any additional cases registered for treatment but not assigned to an outcome, add up to 100% of cases registered.
Method of measurement : Treatment success rates are calculated from cohort data (outcomes in registered patients) as the proportion of new smear-negative and extrapulmonary TB cases registered under a national TB control programme in a given year that successfully completed treatment without bacteriologic evidence of success. The treatment outcomes of TB cases registered for treatment are reported annually by countries to WHO using a web-based data collection system. See the WHO global tuberculosis control report. The treatment outcomes of TB cases reported by countries follow the WHO recommendations on definitions of outcomes, they are internationally comparable and there is no need for any adjustment.
Because treatment for TB lasts 6–8 months, there is a delay in assessing treatment outcomes. Each year, national TB control programmes report to WHO the number of cases of TB diagnosed in the preceding year, and the outcomes of treatment for the cohort of patients who started treatment a year earlier.

23. Treatment success rate for retreatment tuberculosis cases

Rationale for use : Treatment success is an indicator of the performance of national TB control programmes. In addition to the obvious benefit to individual patients, successful treatment of infectious cases of TB is essential to prevent the spread of the infection. Detecting and successfully treating a large proportion of TB cases should have an immediate impact on TB prevalence and mortality. By reducing transmission, successfully treating the majority of cases will also affect, with some delay, the incidence of disease.
Definition : The proportion of cases with previous TB treatment history registered under a national TB control programme in a given year that successfully completed treatment, whether with or without bacteriological evidence of success (“cured” or “treatment completed” respectively). At the end of treatment, each patient is assigned one of the following six mutually exclusive treatment outcomes: cured; completed; died; failed; defaulted; and transferred out with outcome unknown. The proportions of cases assigned to these outcomes, plus any additional cases registered for treatment but not assigned to an outcome, add up to 100% of cases registered.
Method of measurement : Treatment success rates are calculated from cohort data (outcomes in registered patients) as the proportion of cases with previous TB treatment history registered under a national TB control programme in a given year that successfully completed treatment, whether with (“cured”) or without (“treatment completed”) bacteriologic evidence of success. The treatment outcomes of TB cases registered for treatment are reported annually by countries to WHO using a web-based data collection system. See the WHO global tuberculosis control report. The treatment outcomes of TB cases reported by countries follow the WHO recommendations on definitions of outcomes, they are internationally comparable and there is no need for any adjustment. Because treatment for TB lasts 6–8 months, there is a delay in assessing treatment outcomes. Each year, national TB control programmes report to WHO the number of cases of TB diagnosed in the preceding year, and the outcomes of treatment for the cohort of patients who started treatment a year earlier.

Health workforce

24. Number of:

- physicians per 10000 population
- nurses per 10000 population
- midwives per 10000 population

Rationale for use: The availability and composition of human resources for health is an important indicator of the strength of the health system. Even though there is no consensus about the optimal level of health workers for a population, there is ample evidence that worker numbers and quality are positively associated with immunization coverage, outreach of primary care, and infant, child and maternal survival.
Definitions:
- Physicians: includes generalists and specialists.
- Nurses: includes professional nurses, auxiliary nurses, enrolled nurses and other nurses, such as dental nurses and primary care nurses.
- Midwives: includes professional midwives, auxiliary midwives and enrolled midwives. Traditional birth attendants, who are counted as community health workers, appear elsewhere.
- Dentists: includes dentists, dental assistants and dental technicians.
- Pharmacists: includes pharmacists, pharmaceutical assistants and pharmaceutical technicians.
- Public and environmental health workers: includes environmental and public health officers, sanitarians, hygienists, public and environmental health technicians, district health officers, malaria technicians, meat inspectors, public health supervisors, and similar professions.
- Community health workers: includes traditional medicine practitioners, faith healers, assistant/community health education workers, community health officers, family health workers, lady health visitors, health extension package workers, community midwives, institution-based personal care workers and traditional birth attendants.
- Laboratory health workers: includes laboratory scientists, laboratory assistants, laboratory technicians and radiographers.
- Other health workers: includes a large number of occupations such as dieticians and nutritionists, medical assistants, occupational therapists, operators of medical and dentistry equipment, optometrists and opticians, physiotherapists, podiatrists, prosthetic/orthotic engineers, psychologists, respiratory therapists, speech pathologists, and medical trainees and interns.
- Health management and support workers: includes general managers, statisticians, lawyers, accountants, medical secretaries, gardeners, computer technicians, ambulance staff, cleaning staff, building and engineering staff, skilled administrative staff, and general support staff.
Methods of estimation: No methods of estimation have been developed.
Source: WHO Global Atlas of the Health Workforce.Geneva: WHO, 2009.
Available at: http://apps.who.int/globalatlas/default.asp. See this source for the latest updates, time-trend statistics and disaggregated data, as well as metadata descriptors. In general, the denominator data for health workforce density (i.e. national population estimates) were obtained from the World Population Prospects Database of the United Nations Population Division. In some cases, official reports provided only workforce density indicators, from which estimates of the absolute numbers were calculated. Depending on the organization of national health systems and means of monitoring, data may not be exactly comparable across countries. Data from the years prior to 2000 were excluded from this edition.

25. Density of environment and public health workers (per 10 000 population)

Rationale for use : Preparing the health workforce to work towards the attainment of a country's health objectives represents one of the most important challenges for its health system. Measuring and monitoring the availability of health workers is a critical starting point for understanding the health system resources situation in a country. While there are no gold standards for assessing the sufficiency of the health workforce to address the health care needs of a given population, low density of health personnel usually suggests inadequate capacity to meet minimum coverage of essential services.
Definition : Number of environment and public health workers per 10 000 population.
Method of measurement
The method of estimation for number of environment and public health workers (including environmental and public health officers, environmental and public health technicians, sanitarians, hygienists and related occupations) depends on the nature of the original data source. Enumeration based on population census data is a count of the number of people reporting their current occupation in dentistry (as classified according to the tasks and duties of their job). A similar method is used for estimates based on labour force survey data, with the additional application of a sampling weight to calibrate for national representation. Data from health facility assessments and administrative reporting systems may be based on head counts of employees, duty rosters, staffing records, payroll records, registries of health professional regulatory bodies, or tallies from other types of routine administrative records on human resources. Ideally, information on the stock of health workers should be assessed through administrative records compiled, updated and reported at least annually, and periodically validated and adjusted against data from a population census or other nationally representative source.
Method of estimation : WHO compiles data on health workforce from four major sources: population censuses, labour force and employment surveys, health facility assessments and routine administrative information systems (including reports on public expenditure, staffing and payroll as well as professional training, registration and licensure). Most of the data from administrative sources are derived from published national health sector reviews and/or official country reports to WHO offices. In general, the denominator data for workforce density (i.e. national population estimates) are obtained from the United Nations Population Division's World Population Prospects database

26. Density of community health workers (per 10 000 population)

Rationale for use : Preparing the health workforce to work towards the attainment of a country's health objectives represents one of the most important challenges for its health system. Measuring and monitoring the availability of health workers is a critical starting point for understanding the health system resources situation in a country. While there are no gold standards for assessing the sufficiency of the health workforce to address the health care needs of a given population, low density of health personnel usually suggests inadequate capacity to meet minimum coverage of essential services. In particular, many countries, especially ones with shortages and maldistribution of highly skilled medical and nursing professionals, rely on community health workers – community health aides selected, trained and working in the communities from which they come – to render certain basic health services.
Definition : Number of community health workers per 10 000 population.
Method of measurement : The method of estimation for number of community health workers (including community health officers, community health-education workers, community health aides, family health workers and associated occupations) depends on the nature of the original data source. Enumeration based on population census data is a count of the number of people reporting 'community health worker' as their current occupation (as classified according to the tasks and duties of their job). A similar method is used for estimates based on labour force survey data, with the additional application of a sampling weight to calibrate for national representation. Data from health facility assessments and administrative reporting systems may be based on head counts of employees, staffing records, payroll records, training records, or tallies from other types of routine administrative records on human resources. Ideally, information on the stock of health workers should be assessed through administrative records compiled, updated and reported at least annually, and periodically validated and adjusted against data from a population census or other nationally representative source.
Method of estimation : WHO compiles data on health workforce from four major sources: population censuses, labour force and employment surveys, health facility assessments and routine administrative information systems (including reports on public expenditure, staffing and payroll as well as professional training, registration and licensure). Most of the data from administrative sources are derived from published national health sector reviews and/or official country reports to WHO offices. In general, the denominator data for workforce density (i.e. national population estimates) are obtained from the United Nations Population Division's World Population Prospects database.

27. Density of other health service providers (per 10 000 population)

Rationale for use : Preparing the health workforce to work towards the attainment of a country's health objectives represents one of the most important challenges for its health system. Measuring and monitoring the availability of health workers is a critical starting point for understanding the health system resources situation in a country. While there are no gold standards for assessing the sufficiency of the health workforce to address the health care needs of a given population, low density of health personnel usually suggests inadequate capacity to meet minimum coverage of essential services.
Definition : Number of other health service providers (excepting physicians, nursing and midwifery personnel, dentistry personnel and community health workers) per 10 000 population.
Method of measurement : The method of estimation for numbers of other health service providers (which may include a large range of occupations such as ambulance workers, dieticians and nutritionists, environmental and occupational health inspectors, medical assistants, medical imaging technicians, medical laboratory technicians, optometrists, paramedical practitioners, personal care workers, pharmaceutical personnel, physiotherapists, speech therapists, and traditional and complementary medicine practitioners) depends on the organization of the national health system and the nature of the original data source. Enumeration based on population census data is a count of the number of people reporting a health occupation (as classified according to the tasks and duties of their job). A similar method is used for estimates based on labour force survey data, with the additional application of a sampling weight to calibrate for national representation. Data from health facility assessments and administrative reporting systems may be based on head counts of employees, duty rosters, staffing records, payroll records, registries of health professional regulatory bodies, or tallies from other types of routine administrative records on human resources. Ideally, information on the stock of health workers should be assessed through administrative records compiled, updated and reported at least annually, and periodically validated and adjusted against data from a population census or other nationally representative source.
Method of estimation : WHO compiles data on health workforce from four major sources: population censuses, labour force and employment surveys, health facility assessments and routine administrative information systems (including reports on public expenditure, staffing and payroll as well as professional training, registration and licensure). Most of the data from administrative sources are derived from published national health sector reviews and/or official country reports to WHO offices. In general, the denominator data for workforce density (i.e. national population estimates) are obtained from the United Nations Population Division's World Population Prospects database.

Medical products, vaccines, infrastructures and equipment

28. Hospital beds per 10 000 population

Rationale for use: Service delivery is an important component of health systems. To capture availability access and distribution of health services delivery, a range of indicators or a composite indicator is needed. Currently, there are no such data for the majority of countries. Inpatient bed density is one of the few available indicators on a component of level of health service delivery.
Definition: Number of inpatient beds per 10 000 population.

Methods of estimation: Empirical data only, with possible adjustment for underreporting (e.g. missing private facilities). Additional data are compiled by the WHO Regional Office for Africa.

29. Density of mammographs (per million females aged between 50 and 69 years old)

Definition : Number of mammographs units from the public and private sectors, per million population of females aged between 50 and 69 years old.
Method of measurement : Count of medical devices available in the country, divided by the number of population.
Method of estimation : Information collected directly from ministries of health through the baseline country survey on medical devices 2010, conducted by HQ/HSS/EHT/DIM. The females population data was obtained from the United Nations Statistics Division (UNSD). In the case UNSD females population data was not available we have used the population data estimates from the population prospects of the CIA World Factbook 2011. Predominant type of statistics: Unadjusted.

30. Density of computed tomography units (per million population)

Definition : Computed tomography (CT) scan units from the public and private sectors, per 1 000 000 population.
Method of measurement : Count of medical devices available in the country, divided by the number of population.
Method of estimation : Information collected directly from ministries of health through the baseline country survey on medical devices 2010, conducted by HQ/HSS/EHT/DIM. The population data was obtained from the United Nations Statistics Division. Predominant type of statistics: Unadjusted.

31. Density of magnetic resonance imaging units (per million population)

Definition : Number of Magnetic Resonance units from the public and private sectors, per 1 000 000 population.
Method of measurement : Count of medical devices available in the country, divided by the number of population.
Method of estimation : Information collected directly from ministries of health through the baseline country survey on medical devices 2010, conducted by HQ/HSS/EHT/DIM. The population data was obtained from the United Nations Statistics Division. Predominant type of statistics: Unadjusted.

32. Density of linear accelerator units (per million population)

Definition : Number of linear accelerators units from the public and private sectors, per 1 000 000 population.
Method of measurement : Count of medical devices available in the country, divided by the number of population.
Method of estimation : Information collected directly from ministries of health through the baseline country survey on medical devices 2010, conducted by HQ/HSS/EHT/DIM. In case of non-response, Directory of Radiotherapy Centres (DIRAC) International Atomic Energy Agency data was used The population data was obtained from the United Nations Statistics Division. Predominant type of statistics: Unadjusted.

33. Density of gamma camera or nuclear medicine units (per million population)

Definition : Nuclear medicine units from the public and private sectors, per 1 000 000 population.
Method of measurement : Count of medical devices available in the country, divided by the number of population.
Method of estimation : Information collected directly from ministries of health through the baseline country survey on medical devices 2010, conducted by HQ/HSS/EHT/DIM. The population data was obtained from the United Nations Statistics Division. Predominant type of statistics: Unadjusted.

34. Density of health posts (per 100 000 population)

Definition
Number of health posts from the public and private sectors, per 100,000 population. Health posts are either community centres or health environments with a very limited number of beds with limited curative and preventive care resources normally assisted by health workers or nurses.
Method of measurement
Count of health posts available in the country, divided by the number of population.
Method of estimation
Information collected directly from ministries of health through the baseline country survey on medical devices 2010, conducted by HQ/HSS/EHT/DIM. The population data was obtained from the United Nations Statistics Division. Predominant type of statistics: Unadjusted.

35. Density of provincial hospitals (per 100 000 population)

Definition : Number of provincial hospitals from the public and private sectors, per 100,000 population.

Method of measurement : Count of provincial hospitals available in the country, divided by the number of population.

Method of estimation : Information collected directly from ministries of health through the baseline country survey on medical devices 2010, conducted by HQ/HSS/EHT/DIM. The population data was obtained from the United Nations Statistics Division. Predominant type of statistics: Unadjusted.

36. Density of health centres (per 100 000 population)

Definition : Number of health centres from the public and private sectors, per 100,000 population.
Method of measurement : Count of health centres available in the country, divided by the number of population.
Method of estimation : Information collected directly from ministries of health through the baseline country survey on medical devices 2010, conducted by HQ/HSS/EHT/DIM. The population data was obtained from the United Nations Statistics Division. Predominant type of statistics: Unadjusted.

37. Density of district/rural hospitals (per 100 000 population)

Definition : Number of district/rural hospitals from the public and private sectors, per 100,000 population.
Method of measurement : Count of district/rural hospitals in the country, divided by the number of population.
Method of estimation : Information collected directly from ministries of health through the baseline country survey on medical devices 2010, conducted by HQ/HSS/EHT/DIM. The population data was obtained from the United Nations Statistics Division. Predominant type of statistics: Unadjusted.

38. Unit in the Ministry of Health responsible for the management of medical devices

Definition : Identification of a unit within the MoH that can perform Health Technology
Assessment, planning, acquisition, utilization or other type of medical devices management related tasks. The existence of this unit was noted as "Yes", the non-existence as "No".
Method of measurement : Verify the existence of a Unit within the country MoH responsible for the management of medical devices

Method of estimation : Information collected directly from ministries of health through the baseline country survey on medical devices 2010, conducted by HQ/HSS/EHT/DIM. Predominant type of statistics: Unadjusted.

39. Availability of national standards or recommended lists of medical devices

Definition : National recommended lists or national standards that help define the medical devices required for specific clinical procedures. They, therefore, assist in increasing the availability of the medical devices when required. The following four categories were taken into account: 1: For different healthcare facilities; 2: For specific procedures; 3: For different healthcare facilities and specific procedures; 4: No list available
Method of measurement : Count the existence of each of the medical devices lists types available in the country
Method of estimation : Information collected directly from ministries of health through the baseline country survey on medical devices 2010, conducted by HQ/HSS/EHT/DIM. Predominant type of statistics: Unadjusted.

Health Information - Civil Registration Coverage

40. Coverage of vital registration of deaths

Rationale for use: Health information is an essential component of health systems. The registration of births and deaths with causes of death, called 'civil registration (vital registration)', is an important component of a country's health information system.
Definition: Percentage of estimated total deaths that are 'counted' through a civil registration system.
Methods of estimation: Expected numbers of deaths by age and sex are estimated from current life tables, based on multiple sources. Reported numbers are compared with expected numbers by age and sex to obtain an estimate of coverage of the vital registration system.
Sources: (i) **United Nations Demographic Yearbook 2007**. New York: United Nations Statistics Division, 2009. Available at: http://unstats.un.org/unsd/demographic/products/dyb/dybsets/2007%20DYB.pdf; (ii) WHO Mortality Database: Tables. Geneva: WHO, 2009. Available at: www.who.int/healthinfo/morttables.

Specific programmes and services

HIV/AIDS

41. Prevalence of HIV among adults aged 15 to 49 years (%) of age

Rationale for use: HIV/AIDS has become a major public health problem in many countries, and monitoring the course of the epidemic and the impact of interventions is crucial. Both the MDGs and the United Nations General Assembly Special Session on HIV and AIDS (UNGAS) have set goals for reducing HIV prevalence.

Definition: Percentage of people with HIV infection among all people aged 15–49 years.
Methods of estimation: HIV prevalence data from HIV sentinel surveillance systems, which may include national population surveys with HIV testing, are used to estimate HIV prevalence using standardized tools and methods of estimation developed by UNAIDS and WHO in collaboration with the UNAIDS Reference Group on Estimation, Modelling and Projections. Tools for estimating the level of HIV infection are different for generalized epidemics, and concentrated or low-level epidemics.

42. People with advanced HIV infection receiving antiretroviral (ARV) combination therapy (%)

Rationale for use: As the HIV epidemic matures, increasing numbers of people are reaching advanced stages of HIV infection. ARV combination therapy has been shown to reduce mortality among those infected, and efforts are being made to make it more affordable even in less-developed countries. This indicator assesses the progress in providing ARV combination therapy to everyone with advanced HIV infection.
Definition: Percentage of people with advanced HIV infection receiving ARV therapy according to nationally approved treatment protocol (or WHO/Joint UN Programme on HIV and AIDS standards) among the estimated number of people with advanced HIV infection.
Methods of estimation: The denominator of the coverage estimate is obtained from models that also generate the HIV prevalence, incidence and mortality estimates. The number of adults with advanced HIV infection who need to start treatment is estimated as the number of AIDS cases in the current year times 2. The total number of adults needing ARV therapy is calculated by adding the number of adults who need to start ARV therapy to the number of adults who are being treated in the previous year and have survived into the current year.
Source: Towards Universal Access: Scaling Up Priority HIV/AIDS Interventions in The Health Sector: Progress Report, 2008. Geneva: WHO, Joint United Nations Programme on HIV/AIDS, United Nations Children's Fund, 2008. WHO regional and global figures are updates for the year 2008. Income-group aggregates are based on the World Bank 2008 list of economies.

43. Prevalence of condom use by adults aged 15-49 years (%) during higher-risk sex

Rationale for use: Consistent correct use of condoms within non-regular sexual partnerships substantially reduces the risk of sexual HIV transmission.
Definition: Percentage of people aged 15-49 years reporting the use of a condom during the last sexual intercourse with a non-regular partner among those who had sex with a non-regular partner in the last 12 months.
Methods of estimation: Empirical data only. Survey respondents aged 15-49 years are asked whether they have commenced sexual activity. Those who report sexual activity and have had sexual intercourse with a non-regular partner in the last 12 months are further asked about the number of non-regular partners and condom use the last time they had sex with a nonregular partner.
Source: Data are from Demographic and Health Surveys (DHS) and exclude country-reported data. 2008 Report on the Global AIDS Epidemic. Geneva: Joint United Nations Programme on HIV/AIDS, WHO, 2008.
Available at: www.unaids.org/en/KnowledgeCentre/HIVData/GlobalReport/2008/2008_Global_report.asp. See Annex 2: Country Progress Indicators.

Tuberculosis

44. Incidence of tuberculosis

Rationale for use: Incidence (cases arising in a given time period) gives an indication of the burden of TB in a population, and of the size of the task faced by a national TB control programme. Incidence can change as the result of changes in transmission (the rate at which people become infected with Mycobacterium tuberculosis, the bacterium that causes TB) or changes in the rate at which people infected with M. tuberculosis develop TB disease (e.g. as a result of changes in nutritional status or of HIV infection). Because TB can develop in people who became infected many years previously, the effect of TB control on incidence is less immediate than the effect on prevalence or mortality. MDG6, Target 8 is 'to have halted by 2015 and begun to reverse the incidence of TB. WHO estimates that in 2004 the per capita incidence of TB was stable or falling in 5 out of 6 WHO Regions, but growing globally at 0.6% per year. The exception was the African Region, where incidence is apparently still increasing, but less rapidly each year. Implementation of the Stop TB Strategy, following the Global Plan to Stop TB 2006-2015, is expected to reverse the rise in incidence globally by 2015.
Definition: Estimated number of TB cases arising in a given time period (expressed as per capita rate). All forms of TB are included, as are cases in people with HIV.
Methods of estimation: Estimates of TB incidence, prevalence and mortality are based on a consultative and analytical process in WHO and are published annually. Estimates of incidence for each country are derived using one or more of four approaches, depending on the available data:
incidence = case notifications/proportion of cases detected
incidence = prevalence/duration of condition
incidence = annual risk of TB infection × Stýblo coefficient
incidence = deaths/proportion of incident cases that die
Data are for all forms of tuberculosis, including tuberculosis in people with HIV infection.
Source: Global Tuberculosis Control: A Short Update to the 2009 Report. Geneva: WHO, 2009 (WHO/HTM/TB/2009.426).
Available at: www.who.int/tb/publications/global_report. WHO region, income group and global aggregates include territories.

45. Prevalence of tuberculosis

Rationale for use: Prevalence and mortality are direct indicators of the burden of TB, indicating the number of people suffering from the disease at a given point in time and the number dying each year. Furthermore, prevalence and mortality respond quickly to improvements in control, as timely and effective treatments reduce the average duration of disease (thus decreasing prevalence) and the likelihood of dying from the disease (thus reducing disease-specific mortality). MDG6 is 'to combat HIV/AIDS, malaria and other diseases' (including TB). This goal is linked to Target 8, 'to have halted by 2015 and begun to reverse the incidence of malaria and other major diseases', and MDG Indicator 24, 'prevalence and mortality rates associated with TB'. The Stop TB Partnership has endorsed the related targets of reducing per capita TB prevalence and mortality by 50% relative to 1990, by the year 2015. There are few good data with which to establish TB prevalence and mortality, particularly for the baseline year of 1990. However, current best estimates suggest that implementation of the Global Plan to Stop TB 2006-2015 will halve 1990 prevalence and mortality rates globally and in most regions by 2015, though not in Africa and Eastern Europe.
Definition: The number of cases of TB (all forms) in a population at a given point in time (sometimes referred to as 'point prevalence') expressed in this database as number of cases per 100 000 population.
Methods of estimation: Estimates of TB incidence, prevalence and mortality are based on a consultative and analytical process in WHO and are published annually. The methods used to estimate TB prevalence and mortality rates are described in detail elsewhere. Country-specific estimates of prevalence are, in most instances, derived from estimates of incidence, combined with assumptions about the duration of disease. The duration of disease is assumed to vary according to whether the disease is smear-positive or not; whether the individual receives treatment in a DOTS programme or non-DOTS programmes, or is not treated at all; and whether the individual is infected with HIV.

46. Tuberculosis: DOTS case detection rate

Rationale for use: The proportion of estimated new smear-positive cases that are detected (diagnosed and notified to WHO) by DOTS programmes provides an indication of how effective national TB programmes are in finding people with TB and diagnosing the disease.
Methods of estimation: Estimates of incidence are based on a consultative and analytical process in WHO, and are published annually. The DOTS detection rate for new smear-positive cases is calculated by dividing the number of new smear-positive cases notified to WHO by the estimated number of incident smear-positive cases for the same year.

47. Tuberculosis mortality

Rationale for use: Prevalence and mortality are direct indicators of the burden of tuberculosis (TB), indicating the number of people suffering from the disease at a given point in time and the number dying each year. Furthermore, prevalence and mortality respond quickly to improvements in control, as timely and effective treatment reduces the average duration of disease (thus decreasing prevalence) and the likelihood of dying from the disease (thus reducing disease-specific mortality).
Definition: Estimated number of deaths due to TB in a given time period. It is expressed in this database as deaths per 100 000 population per year. Includes deaths from all forms of TB, and deaths from TB in people with HIV.
Methods of estimation: Estimates of TB incidence, prevalence and mortality are based on a consultative and analytical process in WHO and are published annually. The methods used to estimate TB mortality rates are described in detail elsewhere. Country-specific estimates of TB mortality are, in most instances, derived from estimates of incidence, combined with assumptions about the case fatality rate. The case fatality rate is assumed to vary according to whether the disease is smear-positive or not; whether the individual receives treatment in a DOTS programme or non-DOTS programmes, or is not treated at all; and whether the individual is infected with HIV. These are classified as deaths from tuberculosis according to the International Statistical Classification of Diseases and Related Health Problems, 10th revision. Geneva, WHO, 1992.
Source: Global Tuberculosis Control: A Short Update to the 2009 Report. Geneva, WHO, 2009 (WHO/HTM/TB/2009.426).
Available at: www.who.int/tb/publications/global_report. WHO Regional, income group and global aggregates include territories.

Malaria

48. Children under 5 years of age sleeping under insecticide-treated bed nets (%)

Rationale for use: In areas of intense malaria transmission, malaria-related morbidity and mortality are concentrated in young children, and the use of insecticide-treated nets (ITNs) by children under 5 years of age has been demonstrated to considerably reduce malaria disease incidence, malaria-related anaemia and all-cause under-5 mortality. Vector control through the use of ITNs constitutes one of the four intervention strategies of the Roll Back Malaria Initiative. It is also listed as an MDG indicator.
Definition: Percentage of children under 5 years of age in malaria-endemic areas who slept under an ITN the previous night, ITN being defined as a mosquito net that has been treated within 12 months or is a long-lasting insecticidal net (LLIN).
Methods of estimation: Empirical data only.
Source: World Malaria Report 2009, Annex 6. Geneva: WHO, 2009.
Available at: www.who.int/malaria/world_malaria_report_2009/mal2009_annex6_0010.pdf.

49. Children under 5 years of age with fever being treated with antimalarial drugs (%)

Rationale for use: Prompt treatment with effective antimalaria drugs for children with fever in malaria risk areas is a key intervention to reduce mortality. In addition to being listed as a global MDG indicator under Goal 6, effective malaria treatment is

also identified by WHO, UNICEF and the World Bank as one of the four main interventions to reduce the burden of malaria in Africa: (i) use of insecticide treated nets (ITNs); (ii) prompt access to effective treatments in or near the home, (iii) provision of antimalaria drugs to symptom-free pregnant women in stable transmission areas; and (iv) improved forecasting, prevention and response, essential to respond quickly and effectively to malaria epidemics. In areas of sub-Saharan Africa with stable levels of malaria transmission, it is essential that access to prompt treatment be ensured. This requires drug availability at household or community level and, for complicated cases, availability of transport to the nearest equipped facility. Reserve drug stocks, transport and hospital capacity are needed to mount an appropriate response to malaria cases and prevent the onset of malaria from degenerating to a highly lethal complicated malaria picture.
Definition: Percentage of population under 5 years of age in malaria-risk areas with fever being treated with effective antimalaria drugs.
Methods of estimation: For prevention, the indicator is calculated as the percentage of children under 5 years of age who received effective antimalaria drugs upon a fever episode. The information is obtained directly from household surveys. The empirical values are directly reported without further estimation.

Immunization, vaccines and emergencies

50. One-year-olds immunized with:

- **one dose of Baccille Calmette Guerin vaccine (BCG)**
- **protection at birth (PAB)**
- **three doses of polio vaccine (Pol3)**
- **one dose of measles-containing vaccine (MCV)**
- **three doses of Haemophilus influenzae type B vaccine (Hib3)**
- **three doses of diphtheria toxoid, tetanus toxoid and pertussis vaccine (DTP3)**
- **three doses of hepatitis B vaccine (HepB3)(%)**
- **three doses of pneumococcal conjugate vaccine (PCV)**

Rationale for use: Immunization coverage estimates are used to monitor immunization services and to guide disease eradication and elimination efforts, and are a good indicator of health systems performance.
Definition: BCG immunization coverage is the percentage of one-year-olds who have received at least one dose of Bacilli Calmette Guerin vaccine in a given year. Pol3 immunization coverage is the percentage of one-year-olds who have received three doses of poliomyelitis vaccine in a given year. Measles immunization coverage is the percentage of 1-year-olds who have received at least one dose of measles containing vaccine in a given year. For countries recommending the first dose of measles among children older than 12 months of age, the indicator is calculated as the proportion of children less than 24 months of age receiving one dose of measles containing vaccine. Hib3 immunization coverage is the percentage of one-year-olds who have received three doses of Haemophilus influenzae type B vaccine in a given year. DTP3 immunization coverage is the percentage of 1-yearolds who have received three doses of the combined diphtheria and tetanus toxoid and pertussis vaccine in a given year. HepB3 immunization coverage is the percentage of 1-year-olds who have received three doses of Hepatitis B3 vaccine in a given year. PCV immunization coverage is the percentage of one-year-olds who have received at least one dose of pneumococcal conjugate vaccine in a given year.
Methods of estimation: WHO and UNICEF rely on reports from countries, household surveys and other sources such as research studies. Both organizations have developed common review process and estimation methodologies. Draft estimates are made, reviewed by country and external experts and then finalized.
Sources: Unless otherwise stated, data are derived from Demographic and Health Surveys (DHS) conducted since 2000. The DHS figures were extracted using STATcompiler software (www.measuredhs.com/). When not available using STATcompiler software, figures were extracted directly from DHS reports. For some countries and some of the indicators, there were differences in the figures extracted from the country reports and STATcompiler. In these cases, following discussions with staff from the MEASURE DHS implementation group (ICF Macro), data from the country reports were used. Further information regarding the source of individual country data can be obtained on request from WHO.

Child and adolescent health

51. Distribution of causes of death among children aged <5 years (%)

Rationale for use: The target of Millennium Development Goal 4 is to “Reduce by two thirds, from 1990 to 2015, the under-five mortality rate”. Efforts to improve child survival can be effective only if they are based on reasonably accurate information about the causes of childhood deaths.
Definition: Distribution of main causes of death among children aged < 5 years, expressed as percentage of total deaths.

Method of estimation: WHO regularly receives mortality-by-cause data from Member States, as recorded in national civil registration systems.
Source: WHO Global Health Observatory Data Repository. Data extracted on 2013-06-26 12:56:49.0.
http://apps.who.int/gho/data/node.main.24?lang=en

52. Exclusive breastfeeding under 6 months, early initiation of breastfeeding, complementary feed (%)

Rationale for use: These indicators belong to a set of indicators whose purpose is to measure infant and young child feeding practices, policies and programmes.
Definition: Exclusive breastfeeding is the proportion of infants 0–5 months of age who are fed exclusively with breast milk. Early initiation of breastfeeding is the ercentage of infants who are put to the breast within one hour of birth. Complementary feed is the percentage of children aged 6–8 months who received solid, semi-solid or soft foods in the 24 hours prior to the survey.
Method of estimation: WHO maintains the WHO Global Data Bank on Infant and Young Child Feeding
Source: DHS, MICS, other national household surveys and UNICEF;UNICEF- the State of the World's Children 2013
http://www.unicef.org/sowc2013/statistics.html

53. Children 6–59 months of age who received vitamin A supplementation

Rationale for use: Vitamin A supplementation is considered a critically important intervention for child survival owing to the strong evidence that exists of its impact on child mortality. Therefore, measuring the proportion of children who have received vitamin A in the last 6 months is crucial for monitoring coverage of interventions towards the child-survival-related MDGs and strategies.
Definition: proportion of children 6–59 months of age who have received a high-dose vitamin A supplement in the last 6 months.
Methods of estimation: Empirical data.
Source: Data compiled by WHO from Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS), January 2010. Available at: www.measuredhs.com and www.unicef.org/statistics/index_24302.html.

54. Children under 5 years of age with acute respiratory infection and fever (ARI) taken to a health facility

Rationale for use: Respiratory infections are responsible for almost 20% of all under-5 deaths worldwide. The number of under-5s with ARI who are taken to an appropriate health provider is a key indicator for both coverage of intervention and careseeking and provides critical inputs to the monitoring of progress towards the child-survival-related MDGs and strategies.
Definition: Proportion of children aged 0–59 months who had presumed pneumonia (ARI) in the last 2 weeks and were taken to an appropriate health provider.
Methods of estimation: Empirical data.

55. Children aged <5 years with ARI symptoms receiving antibiotics (%)

Rationale for use: Pneumonia accounts for an estimated 18% of deaths among children under five. Appropriate care of the sick child is defined as providers that can correctly diagnose and treat pneumonia. Antibiotics have an essential role in reducing deaths due to pneumonia. Pneumonia prevention and treatment is therefore
essential to the achievement of MDG4.
Definition: Percentage of children ages 0-59 months with suspected pneumonia receiving antibiotics.
Method of estimation: WHO compiles empirical data from household surveys.
Source: WHO Global Health Observatory Data Repository. Data extracted on 2013-06-26 14:50:54.0.
http://apps.who.int/gho/data/node.main.38?lang=en

56. Children under 5 years of age with diarrhoea who received oral rehydratation therapy (ORT)

Rationale for use: Diarrhoeal diseases remain one of the major causes of under-5 mortality, accounting for 1.8 million child deaths worldwide, despite all the progress in their management and the undeniable success of oral rehydration therapy (ORT). Therefore, the monitoring of the coverage of this very costeffective intervention is crucial for the monitoring of progress towards the child-survival-related MDGs and strategies.
Definition: Proportion of children aged 0–59 months who had diarrhoea in the last 2 weeks and were treated with oral rehydration salts or an appropriate household solution (ORT).
Methods of estimation: Empirical data.

57. Newborns with low birthweight (%)

Rationale for use: the low-birthweight rate at the population level is an indicator of a public health problem that includes long-term maternal malnutrition, ill-health and poor health care. On an individual basis, low birthweight is an important predictor of newborn health and survival.
Definition: Percentage of live-born infants with birthweight less than 2500 g in a given time period. Low birthweight may be subdivided into very low birthweight (less than 1500 g) and extremely low birthweight (less than 1000 g).

Methods of estimation: Where reliable health service statistics with a high level of coverage exist, percentage of low-birthweight births. For household survey data, different adjustments are made according to the type of information available (numerical birthweight data or subjective assessment by the mother).
Source: UNICEF Global Database on Low Birthweight. New York: UNICEF, 2009.
Available at: www.childinfo.org/low_birthweight_table.php (November 2009 update).

Maternal and newborn health

58. Births attended by skilled health personnel (%)

Rationale for use: All women should have access to skilled care during pregnancy and at delivery to ensure detection and management of complications. Moreover, because it is difficult to measure maternal mortality accurately, model-based maternal mortality ratio (MMR) estimates cannot be used for monitoring short-term trends. The proportion of births attended by skilled health personnel is used as a proxy indicator for this purpose.
Definition: Percentage of live births attended by skilled health personnel in a given period of time.
Methods of estimation: Empirical data from household surveys are used. At a global level, facility data are not used.
Source: WHO Global Database on Maternal Health Indicators, 2009 update. Geneva: WHO, 2009.
Available at: www.who.int/reproductivehealth/global_monitoring/index.html. In order to enhance comparability over time, the reported figures are derived, to the extent possible, from broadly comparable data sources. Therefore, reported figures may not refer to the most recently available data. Refer to the source for more complete information on time trends and metadata.

59. Births by caesarean section (%)

Rationale for use: The proportion of births by caesarean section is an indicator of access to and utilization of health care during childbirth.
Definition: Percentage of births by caesarean section among all live births in a given time period.
Methods of estimation: Empirical data from household surveys.

60. Stillbirth rate (per 1000 total births)

Rationale for use: Stillbirths can occur antepartum or intrapartum. In many cases, stillbirths reflect inadequacies in antenatal care coverage or good quality intrapartum care

Definition:
For international comparison purposes, stillbirths are defined as third trimester fetal deaths (> or = 1000 grams or > or = 28 weeks).
Method of estimation:
For data from countries with civil registration and good coverage, data meeting definition criteria of greater than or equal to 1000 g or 28 completed weeks gestation, are taken directly from civil registration without adjustment. For all other countries, stillbirth rates were estimated using an econometrics model.
Source:
WHO Global Health Observatory Data Repository. Data extracted on 2013-06-26 12:07:00.0.
http://apps.who.int/gho/indicatorregistry/App_Main/view_indicator.aspx?iid=2444

61. Antenatal care coverage (%)

Rationale for use: Antenatal care coverage is an indicator of access and utilization of health care during pregnancy.
Definition: Percentage of women who utilized antenatal care provided by skilled health personnel for reasons related to pregnancy at least once during pregnancy as a percentage of live births in a given time period.
Methods of estimation: Empirical data from household surveys are used. At global level, facility data are not used.
Source: UNICEF Global Database on Maternal Health. New York: UNICEF, 2010.
Available at: www.childinfo.org/antenatal_care_country.php.

62. Postnatal care visit within two days of childbirth (%)

Rationale for use: The majority of maternal and newborn deaths occur within a few hours after birth, mostly within the first 48 hours. Deaths in the newborn period (first 28 days) are a growing proportion of all child deaths. Postnatal care contacts, especially within the first few days following birth, are a critical opportunity for improving maternal and newborn health and survival and for provision of information about birth spacing.
Definition: Percentage of mothers who received postnatal care within two days of childbirth.
Method of estimation: WHO compiles empirical data from household surveys.
Source: WHO Global Health Observatory Data Repository. Data extracted on 2013-06-26 15:40:48.0.
http://apps.who.int/gho/data/node.main.531?lang=en

63. Percentage of pregnant women with HIV receiving antiretrovirals to prevent mother-to-child transmission (PMTCT)

Rationale for use: In the absence of any preventative interventions, infants born to and breastfed by HIV-infected women have roughly a one-in-three chance of acquiring infection themselves. The purpose of this indicator is to assess progress in preventing mother-to-child transmission of HIV (PMTCT).
Definition: The percentage of HIV-infected pregnant women who received antiretroviral medicines to reduce the risk of mother-to-child transmission, among the estimated number of HIV-infected pregnant women.
Method of estimation: UNAIDS/WHO methods
Source: WHO Global Health Observatory Data Repository. Data extracted on 2013-06-26 15:40:48.0.
http://apps.who.int/gho/data/node.main.574?lang=en

Gender and women's health (including ageing)

64. Contraceptive prevalence (%)

Rationale for use: Contraceptive prevalence is an indicator of health, population, development and women's empowerment. It also serves as a proxy measure of access to reproductive health services that are essential for meeting many of the MDGs, especially the child mortality, maternal health, HIV/AIDS and gender-related goals.
Definition: Contraceptive prevalence is the proportion of women of reproductive age who are using (or whose partner is using) a contraceptive method at a given point in time
Methods of estimation: Empirical data only.
Source: World Contraceptive Use 2009. New York: Population Division, Department of Economic and Social Affairs, United Nations Secretariat, 2009 (POP/DB/CP/Rev2009).

65. Unmet need for family planning (%)

Rationale for use: Unmet need for family planning provides a measurement of the ability of women in achieving their desired family size and birth spacing. It also provides an indication of the success of reproductive health programmes in addressing demand for services. Unmet need complements the contraceptive prevalence
rate by indicating the additional extent of need to delay or limit births.
Definition: The proportion of women of reproductive age (15-49 years) who are married or in union and who have an unmet need for family planning.
Method of estimation: The United Nations Population Division compiles and updates unmet need for family planning (UMN) data. Data are obtained from surveys including DHS, Fertility and Family Surveys (FFS), Reproductive Health Surveys (RHS) and national surveys based on similar methodologies.
Source: WHO Global Health Observatory Data Repository. Data extracted on 2013-06-26 15:40:48.0.
http://apps.who.int/gho/indicatorregistry/App_Main/view_indicator.aspx?iid=6

66. Total fertility rate (per woman)

Rationale for use: Stillbirths can occur antepartum or intrapartum. In many cases, stillbirths reflect inadequacies in antenatal care coverage or good quality intrapartum care.

Definition: The average number of children a hypothetical cohort of women would have at the end of their reproductive period if they were subject during their whole lives to the fertility rates of a given period and if they were not subject to mortality. It is expressed as children per woman.
Method of estimation: Population data are taken from the most recent United Nations Population Division's "World Population Prospects"
Source: WHO Global Health Observatory Data Repository. Data extracted on 2013-07-23 13:33:21.0.
http://apps.who.int/gho/indicatorregistry/App_Main/view_indicator.aspx?iid=123

67. Incidence rate of cervical cancer (per 100 000 population)

Rationale for use: Women' s health indicator
Definition: Age standardized incidence rate of cervical cancer (per 100 000 population)
Source: GLOBOCAN 2008. International Agency for Research on Cancer (IARC), http://globocan.iarc.fr/

68. Prevalence of FGM among daughters (%)

Definition : Percentage of women aged 15-49 with at least one daughter circumcised
Source: DHS, MICS, DHS and other national survey.

69. Prevalence of FGM among women 15-49 (%)

Definition: Percentage of women aged 15-49 who have been cut
Source: UNICEF: Childinfo Monitoring the Situation of Children and Women, http://www.childinfo.org/fgmc_prevalence.php
Data are obtained from surveys including DHS, MICS, DHS and other national survey.

70. Female headed households (%)

Rationale for use: Gender indicator
Definition: Female headed households shows the percentage of households with a female head.
Source: The World Bank. Data obtained from the Demographic and Health Surveys by ICF International.

71. Life expectancy at age 60 (years)

Rationale for use: Life expectancy at age 60 reflects the overall mortality level of a population over 60 years. It summarizes the mortality pattern that prevails across all age groups above 60 years.
Definition: The average number of years that a person of 60 years old could expect to live, if he or she were to pass through life exposed to the sex- and age-specific death rates prevailing at the time of his or her 60 years, for a specific year, in a given country, territory, or geographic area.
Method of estimation: When mortality data from civil registration are available, their quality is assessed; they are adjusted for the level of completeness of registration if necessary and they are directly used to construct the life tables. WHO has developed a model life table using a modified logit system based on about 1800 life tables from vital registration judged to be of good quality to project life tables and to estimate life table using limited number of parameter as input.
Source: WHO Global Health Observatory Data Repository. Data extracted on 2013-08-12 15:38:20.0.
http://apps.who.int/gho/data/view.main.690?lang=en

Population proportion over 60 (%)

Definition: The percentage of de facto population aged 60 years and older in a country, area or region as of 1 July of the year indicated.
Method of estimation: Population data are taken from the most recent UN Population Division's "World Population Prospects".
Source: UNSD website accessed on july 08, 2013; United Nations Statistics Division based on data published by the United Nations, Department of Economic and Social Affairs, Population Division (2011), http://www.un.org/esa/population/unpop.htm

72. Sex ratio (women per 100 men)

Rationale for use: Gender indicator
Definition: Women divided par 100 men
Method of estimation: Calculated by the United Nations Statistics Division based on the given population by sex.
Source: UNSD website accessed on july 08, 2013. United Nations, Department of Economic and Social Affairs, Population Division (2011), *World Population Prospects: The 2010 Revision.* available in http://www.un.org/esa/population/unpop.htm

73. Sex ratio in 60+ age group (women per 100 men)

Rationale for use: Ageing indicator
Definition: Women divided par 100 men in 60 and over age group
Method of estimation: Calculated by the United Nations Statistics Division based on the given population by sex.
Source: UNSD website accessed on July 08, 2013. United Nations, Department of Economic and Social Affairs, Population Division (2011), *World Population Prospects: The 2010 Revision. available in* http://www.un.org/esa/population/unpop.htm

Neglected tropical diseases

74. Dracunculiasis certification status of countries at the beginning of the year

Rationale for use: WHA Resolutions 44.5, 50.35 and 57.9 on eradication of dracunculiasis.
Definition: It defines the status of certification of countries
WHO classifies countries as:
Endemic for dracunculiasis - country or group of countries where dracunculiasis transmission occurs and where surveillance and control operations are essential.
Countries at the precertification stage - group of countries have reached zero reporting of indigenous cases and where a reliable and extensive surveillance system must be maintained until certification.
Countries not known to have dracunculiasis but yet to be certified - group of countries where the information obtained is not sufficiently clear to ascertain that guinea worm transmission has been definitely interrupted.
Certified free of dracunculiasis - group of countries verified as free of dracunculiasis transmission and certified by WHO following the recommendation of the International Commission for the Certification of Dracunculiasis Eradication (ICCDE). Surveillance should be maintained until global eradication of dracunculiasis is declared.

A country will be considered to have re-established dracunculiasis endemicity if
the country has not reported an indigenous case of the disease for >3years, and
subsequently indigenous transmission of laboratory confirmed cases is shown to occur in that country for three or more consecutive calendar years.
Method of estimation: WHO maintains a register of countries with different certification status. The countries are certified by WHO based on the recommendations of the International Commission for the Certification of Dracunculiasis Eradication.
Source: WHO; WHO Global Health Observatory Data Repository. Data extracted on 2013-08-14 11:51:24.0.
http://apps.who.int/gho/data/node.main.A1633?lang=en

Noncommunicable diseases and conditions

75. Probability of dying between exact ages 30 and 70 from any of cardiovascular disease, cancer, diabetes, or chronic respiratory (%)

Rationale for use: Disease burden from non-communicable diseases (NCDs) among adults - the most economically productive age span - is rapidly increasing in developing countries due to ageing and health transitions. Measuring the risk of dying from target NCDs is important to assess the extent of burden from mortality due NCDs in a population. This indicator has been selected to measure NCD mortality for the "25 by 25" NCD mortality target (see links below).
Definition: Per cent of 30-year-old-people who would die before their 70th birthday from any of cardiovascular disease, cancer, diabetes, or chronic respiratory disease, assuming that s/he would experience current mortality rates at every age and s/he would not die from any other cause of death (e.g., injuries or HIV/AIDS).
Method of estimation: Life tables specifying all-cause mortality rates by age and sex for WHO Member States are developed from available death registration data, sample registration systems (India, China) and data on child and adult mortality from censuses and surveys.
Cause-of-death distributions are estimated from death registration data, and data from population-based epidemiological studies, disease registers and notifications systems for selected specific causes of death. Causes of death for populations without useable death-registration data are estimated using cause-of-death models together with data from population-based epidemiological studies, disease registers and notifications systems.
For additional details on 2008 estimates, refer to 'Summary of methodology for cause of death, 2008'and 'Summary of methodology for child mortality', links provided below.
Probability of death between exact age 30 and exact age 70 was calculated using cause-specific mortality rates in each 5-year age group and standard life table methods.
Source: WHO Global Health Observatory Data Repository. Data extracted on 2013-08-14 12:15:49.0.
http://apps.who.int/gho/data/node.main.A857?lang=en

Key determinants of health

Risk factors for health

76. Prevalence of smoking any tobacco product among adults aged 15 years of age or older (%)

Rationale for use: Prevalence of current tobacco smoking among adults is an important measure of the health and economic burden of tobacco, and provides a baseline for evaluating the effectiveness of tobacco control programmes over time. While a more general measure of tobacco use, including both smoked and smokeless products, would be ideal, data limitations restrict the present indicator to smoked tobacco. Occasional tobacco smoking constitutes a significant risk factor for tobacco-related disease, and is therefore included along with daily tobacco smoking.
Definition: Prevalence of current tobacco smoking (including cigarettes, cigars, pipes or any other smoked tobacco products). Current smoking includes both daily and non-daily or occasional smoking.
Methods of estimation: Empirical data only.
Source: Based on WHO Report On The Global Tobacco Epidemic, 2009: Implementing Smoke-Free Environments. Geneva: WHO, 2009. Available at: www.who.int/tobacco/mpower/en/. See Appendix VII: Age-Standardized Prevalence Estimates for WHO Member States, 2006. ‘Smoking’ is defined as smoking at the time of the survey of any form of tobacco, including cigarettes, cigars, pipes, bidis, etc. and excluding smokeless tobacco.
These figures represent age-standardized prevalence rates for smoking tobacco, and should only be used to draw comparisons of prevalence between countries and between men and women within a country. They should not be used to calculate the number of smokers in a country, region, income group or globally.

77. Alcohol per capita consumption (litres per person) among adults aged 15 years of age or older

Rationale for use: The recorded alcohol per capita consumption is part of a core set of indicators, whose purpose is to monitor the magnitude, pattern and trends of alcohol consumption in the adult population.
Definition: Recorded APC is defined as the recorded amount of alcohol consumed per adult (15+ years) over a calendar year in a country, in litres of pure alcohol. The indicator only takes into account the consumption which is recorded from production, import, export, and sales data often via taxation. Numerator: The amount of recorded alcohol consumed per adult (15+ years) during a calendar year, in litres of pure alcohol. Denominator: Midyear resident population (15+ years) for the same calendar year, UN World Population Prospects, medium variant.

Method of estimation: Adult per capita consumption data exist for almost all countries. Regional and global estimates are calculated as a population weighted average of country data.
Sources: Administrative reporting system
Available at http://apps.who.int/gho/data/node.main.62?lang=en

78. Raised fasting blood glucose among adults aged 25 years or older (%)

Definition: Percent of defined population with fasting glucose ≥126 mg/dl (7.0 mmol/l) or on medication for raised blood glucose.
Method of estimation: Based on measured fasting blood glucose.
Sources: Population-based surveys, surveillance systems
Available at http://apps.who.int/gho/data/node.main.NCD56?lang=en

79. Raised blood pressure among adults aged 25 years or older (%)

Definition: Prevalence of raised blood pressure (SBP≥140 or DBP≥90).
Method of estimation: Based on measured blood pressure. If multiple blood pressure readings were taken, first reading per participant was dropped and average of remaining readings was used.
Sources: Population-based surveys, surveillance systems
Available at http://apps.who.int/gho/data/node.main.NCD56?lang=en

80. Raised total cholesterol among adults aged 25 years or older (%)

Definition: Percentage of defined population with total cholesterol ≥ 240 mg/dl (6.2 mmol/l).
Method of estimation: Based on measured total cholesterol.
Sources: Population-based surveys, surveillance systems
Available at http://apps.who.int/gho/data/node.main.A887?lang=en

81. Physical inactivity among adults aged 15 years of age or older (%)

Definition: Percent of defined population attaining less than 5 times 30 minutes of moderate activity per week, or less than 3 times 20 minutes of vigorous activity per week, or equivalent.
Method of estimation: Based on self-reported physical activity captured using the GPAQ (Global Physical Activity Questionnaire), the IPAQ (International Physical Activity Questionnaire) or a similar questionnaire covering activity at work/in the household, for transport, and during leisure time.
Sources: Population-based surveys, surveillance systems
Available at http://apps.who.int/gho/data/node.main.A893?lang=en

The physical environment

82. Population with:

- sustainable access to an improved water source (%)

- access to improved sanitation (%)

Rationale for use: Access to drinking water and improved sanitation is a fundamental need and a human right vital for the dignity and health of all people. The health and economic benefits of improved water supply to households and individuals (especially children) are well documented. Both indicators are used to monitor progress towards the MDGs.
Definition: Access to an improved water source is the percentage of the population with access to an improved drinking water source in a given year. Access to improved sanitation is the percentage of the population with access to improved sanitation in a given year.
Methods of estimation: Estimates are generated through analysis of survey data and linear regression of data points. Coverage estimates are updated every 2 years.
Source: WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation. Geneva: WHO and UNICEF, 2010.
Available at: www.wssinfo.org/en/welcome.html.

83. Population living in urban areas (%)

Definition: The percentage of de facto population living in areas classified as urban according to the criteria used by each area or country as of 1 July of the year indicated.
Method of estimation: Population data are taken from the most recent UN Population Division's "World Population Prospects".
Sources: Civil registration, Population census
Available at http://apps.who.int/gho/data/node.main.POP107?lang=en

84. Population using solid fuels (%)

Rationale for use: The use of solid fuels in households is associated with increased mortality from pneumonia and other acute lower respiratory diseases among children, as well as increased mortality from chronic obstructive pulmonary disease and lung cancer (where coal is used) among adults. It is also an MDG indicator.
Definition: Percentage of population using solid fuels.
Methods of estimation: The data from surveys and censuses are used as reported in the surveys and censuses. All countries with a Gross National Income (GNI) per capita above US$ 10 500 are assumed to have made a complete transition to cooking with non-solid fuels. For low- and middle income countries with a GNI per capita below US$ 10 500 and for which no household solid fuel use data are available, a regression model based on GNI, percentage of rural population, and location or non-location within the Eastern Mediterranean Region is used to estimate the indicator. These estimates use methods developed and implemented by the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation. Where solid fuel use information is available for two or more separate years (spaced at least 5 years apart) linear regression is performed. The linear regression line is extrapolated up to 2 years after the latest survey point and up to 2 years before the earliest survey point. Outside these time limits, the extrapolated regression line is flat for 4 years in either direction. Where coverage reaches 0% or 100%, a horizontal line is drawn from the year before coverage reaches 0% or 100%. For countries with solid fuel use at less than 5%, 0% is assumed for the calculation of regional or global aggregates; for countries with more than 95%, 95% is assumed in the calculation of the aggregate.
Source: WHO Household Energy Database. Geneva: WHO, 2010.
Available at: www.who.int/indoorair/health_impacts/he_database/en/.

Food safety and nutrition

85. Children under 5 years of age

- underweight for age (%)

- stunted for age (%)

- overweight for age (%)

Rationale for use: All three indicators measure growth in young children. Child growth is internationally recognized as an important public health indicator for monitoring nutritional status and health in populations. In addition, children who suffer from growth retardation as a result of poor diets and/or recurrent infections tend to have greater risks of illness and death.
Definition: Percentage of children stunted describes how many children under 5 years have a height for-age below minus two standard deviations of the National Center for Health Statistics (NCHS)/WHO reference median. Percentage of children underweight describes how many children under 5 years have a weight-for-age below minus two standard deviations of the NCHS/WHO reference median. Percentage of children overweight describes how many children under 5 years have a weight-for-height above two standard deviations of the NCHS/WHO reference median.
Methods of estimation: Empirical values. Several countries have limited data for recent years and current estimations are made using models that make projections based on past trends.
Source: Global Database on Child Growth and Malnutrition. Geneva: WHO, 2009.
Available at: www.who.int/nutgrowthdb/database/en. Prevalence estimates are based on WHO standards.

86. Adults aged 20 years or older who are obese (%)

Rationale for use: The prevalence of overweight and obesity in adults has been increasing globally. Obese adults (BMI ≥ 30.0 kg/m2) are at increased risk of adverse metabolic outcomes, including increased blood pressure, cholesterol, triglycerides and insulin resistance. Subsequently, an increase in BMI exponentially increases the risk of noncommunicable diseases (NCDs), such as coronary heart disease, ischaemic stroke and type 2 diabetes mellitus. Raised BMI is also associated with an increased risk of cancer.
Definition: Percentage of adults classified as obese (BMI ≥ 30.0 kg/m²) among total adult population (20 years or older).
Methods of estimation: Estimates are still under development and will be published later in 2006. Only nationally representative surveys with either anthropometric data collection or self-reported weight and height (mostly in high income countries) are included in the 2006 World Health Statistics. Comparisons between countries may be limited owing to differences in sample characteristics or survey years.
Source: Global Database on Body Mass Index. Geneva, WHO, 2010. Available at: www.who.int/bmi.

87. Annual growth rate (in %) of population

Definition: Average exponential rate of annual growth of the population over a given period.
Methods of estimation: Population data are taken from the most recent UN Population Division's "World Population Prospects".
Sources: Civil registration, Population census
Available at http://apps.who.int/gho/data/node.main.POP107?lang=en

Social determinants
Gender equity

88. Seats held by women in national parliaments (%)

Rationale for use: Gender indicator
Definition: Percentage of parliamentary seats in Single or Lower chamber occupied by women
Method of estimation: The percentage of parliamentary seats occupied by women is calculated for the lower chamber in countries with a bicameral assembly only. The numbers shown reflect changes, if any, after the most recent election prior to those dates, such as results of by-election or replacements following a parliamentarian's resignation or death.
Source: UNSD website accessed on July 08, 2013. Data from Inter-Parliamentary Union. Women in National Parliaments. Situation, available from IPU website. http://www.ipu.org/english/home.htm

8. References

Organization	Data sources
IARC	http://globocan.iarc.fr/ ; http://www-dep.iarc.fr/
IHME	http://ghdx.healthmetricsandevaluation.org/global-burden-disease-study-2010-gbd-2010-data-downloads
IHP+	http://www.internationalhealthpartnership.net/en/tools/global-compact/
UNICEF	http://www.unicef.org/sowc2013/statistics.html
UN	http://esa.un.org/wpp/Excel-Data/population.htm
UNSD	http://unstats.un.org/unsd/demographic/sources/census/censusdates.htm
WHO	http://www.who.int/malaria/data/en/
	http://www.who.int/healthinfo/global_burden_disease/2004_report_update/en/index.html
	http://apps.who.int/gho/data/view.main
	http://www.who.int/tb/country/en/
	http://www.childmortality.org/
	http://reliefweb.int/report/world/trends-maternal-mortality-1990-2010-who-unicef-unfpa-and-world-bank-estimates
	http://www.afro.who.int/en/countries.html
	http://apps.who.int/gho/data/node.main.1?lang=en
World Bank	http://data.worldbank.org/
IEA	http://www.iea.org/media/weowebsite/energydevelopment/2012updates/WEO2012Electricitydatabase_WEB.xlsx
ITU	http://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx
UNHCR	http://www.unhcr.org/pages/4a013eb06.html

Basic data and statistics are at the core of all health systems. Without them, it would be impossible to analyze evidence and extract action-orientated knowledge for decision making.

The development of an African Health Observatory and national health observatories aim to narrow the knowledge gap and strengthen health systems in the African Region by providing easy access to high quality information, evidence and knowledge, as well as facilitate their use for policy and decision making.

WHO Health Situation Analysis in the Africa Region: Atlas of African Health Statistics, 2014 presents in numerical and graphical formats the best data available for key health indicators in the 47 countries of WHO's African Region.

With the continued input and collaboration of the African countries, this publication and its future editions will be a significant, constantly updated information product of the Observatory.