World Health Organization
African Region

Ending disease in Africa

Responding to communicable and noncommunicable diseases, progress report 2020-2022

UHC/UCN
Universal Health Coverage/Communicable and noncommunicable Diseases

Ending disease in Africa: responding to communicable and noncommunicable diseases, progress report 2020-2022

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Foreword

Adopted by all United Nations Member States in 2015, the 17 Sustainable Development Goals (SDGs) recognize that ending poverty and strengthening economies can only be achieved through sustainable, equitable access to health and education, and safe, healthy, and resilient ecosystems and environments. Between 2015 and 2019, real progress in disease management was achieved in the World Health Organization (WHO) African Region, including reducing the incidence of malaria, tuberculosis, poliovirus, measles, and hepatitis B; and increasing access to clean water and sanitation.

The achievements of the past decade in immunization have been far-reaching and include significant progress in the introduction of new vaccines, the establishment of sentinel surveillance systems, and the endorsement of the Addis Ababa Declaration on Universal access to Immunization as a cornerstone for health and development in Africa.

In June 2022, WHO supported the Kigali summit – a milestone in the international response to neglected tropical diseases and malaria integration efforts. Political leaders, the private sector, and civil society organizations made commitments to accelerate work in the elimination of neglected tropical diseases and malaria, through both verbal and financial commitments to support programmes, treatments, and scientific innovations. At the end of the summit, the Kigali Declaration on Neglected Tropical Diseases was endorsed by participants, which is expected to create momentum to deliver the Road map for neglected tropical diseases 2021–2030.

Despite this, many gains were halted during the COVID-19 pandemic, which disrupted the delivery of essential health services. The pandemic has exposed numerous vulnerabilities in health systems of the region, including disparities in service coverage between the rich and the poor, and gaps in social protection. It illustrated the close intersections between health emergencies, communicable and noncommunicable diseases, peace, and resilient health systems. The pandemic showed that health security and attainment of universal health coverage are inseparable aspirations and consequently, efforts to achieve these must go hand in hand, while building resilient populations.

This report comes at a time when countries are still picking up the pieces from the impact of COVID-19 on their health systems. The African Region faces many challenges, but by better defining the risk to health in the region, improving data to support decision making, building technical self-sufficiency through systems strengthening and localized partnerships, and nurturing local capacities in research and innovation, we can strengthen disease management and move forward towards achieving SDG targets and goals.

Supporting this work, the WHO Regional Office for Africa has restructured its Universal Health Coverage, Communicable and Noncommunicable Diseases (UCN) Cluster to foster a systems approach. It is introducing four Special Initiatives informed by national and international successes in the response to COVID-19. These interdependent initiatives are designed to energise and diversify models of technical support delivered by WHO through intensive support to disease management systems and governance; new partnerships with African institutions and bodies to expand the pool of localized technical support available to national health authorities; investments in data science capacities for evidence-driven precision public health; and strengthened research and innovation addressing current and future public health priorities in the African Region.

There is still much hard work ahead to recover from pandemic-related disruptions to health service delivery and to support countries to get back on track towards the 2030 SDG targets. Success in this and the future will rely on the continued commitment of all partners and Member States. More than ever, there is a need to invest in the resilience of health systems – systems must be robust enough for essential service provision to continue even when a country is facing a threat event. Service delivery integration continues to be a crucial need in the region. Even before the pandemic, the limitations of sectoral and vertical planning and programme implementation were evident, with the need to move towards an integrated, systems approach to disease prevention, control, elimination, and eradication.

Lastly, there are many opportunities for Member States within the region to learn and share experiences, with each one taking a unique path to achieve universal health coverage. We hope that by sharing our regional story on progress, we can encourage others to walk this path towards the 2030 Agenda together, leaving no one behind.

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Abbreviations

AFP	Acute flaccid paralysis
AIDS	Acquired immunodeficiency syndrome
CM-NTDs	Case management neglected tropical diseases
cVDPV	Circulating vaccine derived polioviruses
DNA	Deoxyribonucleic acid
DTP	Diphtheria, tetanus, and pertussis
EPI	Expanded programme of immunization
ESPEN	Expanded Special Project for the Elimination of Neglected Tropical Diseases
GPEI	Global Polio Eradication Initiative
HAT	Human African trypanosomiasis
HIV	Human immunodeficiency virus
HPV	Human papillomavirus
IHR	International Health Regulations
MCV	Measles containing vaccine
MNS disorders	Mental, neurological, and substance abuse disorders
NCD	Noncommunicable disease
NTD	Neglected tropical disease
OPV	Oral polio vaccine
PC-NTDs	Preventive chemotherapy neglected tropical diseases
PHEIC	Public health emergency of international concern
SDGs	Sustainable Development Goals
STI	Sexually transmitted infection
TB	Tuberculosis
TVDs	Tropical and vector borne diseases
UCN Cluster	Universal Health Coverage, Communicable Diseases and Noncommunicable Diseases Cluster
UN	United Nations
UNICEF	United Nations Children's Fund
US CDC	United States Centers for Disease Control and Prevention
VPDs	Vaccine preventable diseases
WHO	World Health Organization
WPV	Wild poliovirus

A vaccinator provides a young girl with an oral polio vaccine in Kano State, Nigeria, 2020 ©WHO AFRO

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Executive summary

This is the first progress report produced by the Universal Health Coverage, Communicable and Noncommunicable Diseases (UCN) Cluster of the World Health Organization (WHO) Regional Office for Africa. Established in 2019 to better integrate disease management programmes within a health systems strengthening framework using a data-centric, results focused, and integrated approach, the UCN Cluster is responsible for delivering the African Region's strategic agenda of the Sustainable Development Goals (SDGs).

The pathway for effective disease management adopted by the UCN Cluster is based on three core strategies: eradication, elimination, and control. Of these, eradication is the most desirable. When successful, eradication provides significant benefits to individuals and for broader public health, it also allows the discontinuation of control measures.

Significant progress has been made in the eradication of three priority diseases from the African Region. In August 2020, the region was certified as free of wild poliovirus. Since 1996, polio eradication efforts have protected up to 1.8 million children from life-long paralysis and saved approximately 180 000 lives. Dracunculiasis (or Guinea worm disease) is on the verge of eradication, with only 13 human cases reported in 2022, the lowest annual figure since 1986 when global eradication efforts began. While progress in the region remains mixed, yaws eradication is achievable, with 12 Member States expected to be certified by the end of 2023.

Thanks in part to impressive gains in immunization coverage, considerable progress has been made among the diseases targeted for elimination. The hepatitis B vaccine is included in the routine

immunization schedules of all 47 Member States and as of 2022, 16 countries and areas provide a birth dose of the vaccine to all newborns. The region has seen extraordinary progress in malaria elimination. Case incidence fell by 39% between 2000 and 2019. Despite competing priorities in a challenging time, significant progress has been made towards the elimination of maternal and neonatal tetanus. As of December 2022, 42 countries and areas in the region have validated elimination, up from 30 in 2013. Even though no country in the region has yet been verified for measles elimination, six countries and areas have made sustained progress and will most likely achieve verification in the next 3–5 years. There has been significant progress in reducing the number of new meningitis cases over the past 20 years. Between 2010 and 2019, 24 of the 26 countries in the meningitis belt conducted immunization campaigns either nationwide or in high-risk areas resulting in the near elimination of group A meningococcal meningitis. By the end of 2022, almost all yellow fever high-risk countries had introduced routine yellow fever vaccination at the national level.

Several neglected tropical diseases (NTDs) are also prioritized for elimination. As of 2023, human African trypanosomiasis has been eliminated as a public health problem in seven countries, and five more countries are eligible for validation. Leprosy cases decreased between 2012 and 2021, and eight Member States have reported no new local cases of leprosy among children for at least five years. To date, four countries and areas have been officially validated for elimination of at least one of the five priority preventive chemotherapy neglected tropical diseases: with Malawi and Togo eliminating lymphatic filariasis; and the Gambia, Ghana, Malawi, and Togo eliminating trachoma. All endemic countries in the region have completed mapping for lymphatic filariasis, schistosomiasis, and soil-transmitted helminths. Work is underway to complete the mapping of onchocerciasis and trachoma – two of the major causes of blindness in the region. Togo stands out globally as one country that has successfully eliminated four neglected tropical diseases.

Efforts in disease control through the region continue to yield strong reductions in the incidence, prevalence, morbidity, and mortality for several priority health concerns. Although HIV/AIDS continues to be a devastating public health problem in the African Region, between 2010 and 2021, the number of new HIV cases decreased by 44% and the number of people dying from HIV-related causes declined by 55%. Significant progress was made in the control of new HIV cases among children, with increased coverage of HIV treatment to prevent mother-to-child transmission among pregnant women living with HIV. Between 2000 and 2021, an estimated 16 million deaths were averted due to tuberculosis (TB) and TB/HIV interventions. In 2021, the African Region passed the 2020 milestone of the End TB Strategy, with a 22% reduction in new cases compared with 2015. As of 2021, 27 countries and areas have a national viral hepatitis programme either as a standalone programme or integrated into HIV services, 21 countries have a national strategic plan for viral hepatitis, and 17 countries have testing and treatment guidelines.

Noncommunicable disease (NCD) prevention and control have been mainstreamed in the region with an increasing number of countries implementing the WHO Package of Essential Noncommunicable Disease Interventions (WHO PEN) for primary care in low-resource settings. The PEN-Plus strategy is being implemented and scaled up in the region with evidence of significant improvement in the number of patients accessing services in several countries. Significant progress has been made across several of the targets for cervical cancer control including vaccination, with 24 countries and areas introducing the human papillomavirus (HPV) vaccine into their national immunization programmes. Screening for cervical cancer is available in 34 Member States and 16 countries have incorporated HPV DNA testing into their national progammes. Five countries have developed national treatment guidelines for childhood cancer. All countries and areas implementing WHO PEN have included prevention and care for diabetes. At least 66% of countries have guidelines for the integration of mental health into primary health care and 82% of countries are providing training for primary health care workers.

Note: The information in this report is based on the concepts of eradication, elimination and control. As a result, for convenience, we have grouped diseases into communicable, noncommunicable and neglected tropical diseases.

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Key achievements

ERADICATION

Wild polio virus

On 25 August 2020, the independent Africa Regional Certification Commission for Polio Eradication declared the African Region free of wild **poliovirus**; with the last case of wild polio detected in Nigeria in 2016. This was achieved through the work of national and regional Expanded Programs on Immunization (EPI) and the Global Polio Eradication Initiative (GPEI). Since 1996, polio eradication efforts have protected up to 1.8 million children from life-long paralysis and saved approximately 180 000 lives.

Neglected tropical diseases

Dracunculiasis (Guinea worm disease) is on the verge of eradication, with 188 Member States certified free of Guinea worm transmission, and only 13 human cases reported in 2022, the lowest annual figure since 1986 when global efforts to eradicate the disease began. Significant progress has been made in the region to interrupt Guinea worm transmission and certify the remaining Member States as being free of the disease.

Yaws eradication in the region is achievable. While progress remains mixed, 12 out of 47 Member States (26%) are expected to be certified by the end of 2023. Integrated surveillance strengthening activities for skin based NTDs have been implemented in all endemic countries.

ELIMINATION

Communicable diseases

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The **hepatitis B** vaccine was included in the routine immunization schedules of all 47 Member States in the African region by 2014 and as of 2022, 16 countries in the region provide a birth dose of the vaccine to all newborns. WHO plays a critical role in strengthening and supporting global, regional, and national efforts to eliminate hepatitis B, including through providing clear guidance on best practice, and tailored technical and financial assistance to Member States.

The region has seen extraordinary progress in **malaria** elimination. Successes include Cabo Verde reporting zero indigenous cases for three consecutive years – effectively ending the malaria epidemic in the country. Algeria was certified malaria free in 2019 and another five countries, including Botswana, the Comoros, Eswatini, Sao Tome and Principe, and South Africa, have sufficiently low numbers of cases and deaths to be considered for elimination. A significant achievement in malaria elimination is the introduction of the malaria vaccine. At the end of 2022, more than 3.5 million doses of the vaccine had been administered across Ghana, Kenya, and Malawi and more than 1.16 million children were reached with at least one dose.

Despite competing priorities in a challenging time, significant progress has been made in the African Region towards the elimination of **maternal and neonatal tetanus**. As of December 2022, 42 countries in the region have validated elimination, up from 30 in 2013. The remaining six countries are making progress towards elimination and are likely to achieve it in the next few years.

Even though no country in the region has yet been verified for **measles** elimination, Botswana, Eritrea, Ghana, Mauritius, Rwanda, and Seychelles have made sustained progress and will most likely achieve verification in the next 3–5 years. Other countries with very good progress but with some programme gaps or recent outbreaks include Senegal, Tanzania, Zambia, and Zimbabwe.

There has been significant progress in reducing the number of new **meningitis** cases over the past 20 years. Between 2010 and 2019, 24 of the 26 countries in the meningitis belt conducted immunization campaigns either nationwide or in high-risk areas resulting in the near elimination of *group A meningococcal meningitis*. To date, 14 countries have introduced the meningitis vaccine into their routine immunization programmes. In 2021, routine vaccination coverage in these 14 countries was 74%. In 2022, Benin, Guinea, and Nigeria conducted catch-up immunization campaigns for 14 million children aged 1–10 years, with Guinea achieving almost 95% coverage.

By the end of 2022, all **yellow fever** high-risk countries in the African Region, except Ethiopia and South Sudan, had introduced routine yellow fever vaccination at the national level. Most priority countries have conducted a preventive mass vaccination campaign against yellow fever or are in the process of doing so. Over 174 million people have been protected through mass vaccination since 2017. In addition, more than 4 million people were vaccinated during reactive vaccination campaigns conducted in five countries during 2021 and 2022 as part of outbreak response. Yellow fever surveillance has been integrated as part of epidemic-prone disease surveillance and vaccine preventable disease surveillance syste

Noncommunicable diseases

The Regional **Noma** Control Programme, established in 2001, has been implemented in ten priority countries in the African Region. Its goal is to sustainably eliminate noma as a public health problem. During 2021 and 2022, WHO worked with Benin, Guinea Bissau, Niger, Senegal, and Togo to update their national noma action plans. Eight countries have integrated noma into their existing surveillance systems. An online training course for primary care was launched as part of the Skin NTDs course with OpenWHO in 2022. The course is offered in all official languages of the African Region and as of 2 February 2023, more than 3200 people have registered for the course.

Case management neglected tropical diseases

As of 2023, *T. b. gambiense* **human African trypanosomiasis** (HAT) has been eliminated as a public health problem in seven countries, and five other countries are eligible for validation and are preparing their applications. Elimination of *T. b. rhodesiense* HAT as a public health problem has been validated in two countries. Prospects for further progress on HAT elimination have been improved with the development of an easily accessible, oral treatment.

The number of new **leprosy** cases reported decreased from 24.7 cases per million inhabitants in 2012, to 18.2 per million inhabitants in 2021. Leprosy prevalence also decreased from 21.6 to 18.0 cases per million inhabitants during the same period. Eight out 47 Member States reported no new local cases of leprosy among children for at least five years, which means they are close to achieving interruption of transmission of *Mycobacterium leprae* (the bacterium causing leprosy).

Robust partnerships have enabled the implementation of **visceral leishmaniasis** elimination activities, along with the donation of supplies for diagnosis and treatment and funding from partners. The new WHO treatment guideline on visceral leishmaniasis in HIV coinfected patients in east Africa and south-east Asia was published in 2022. A strategy for visceral leishmaniasis elimination in east Africa is being developed and will be used as an advocacy and guiding tool for implementation of activities.

Preventive chemotherapy neglected tropical diseases

As of 2021, two countries had been validated as having eliminated **lymphatic filariasis** as a public health problem and are under surveillance, and an additional five countries were able to stop mass drug administration given progress to-date. Mass drug administration had been scaled-up to all endemic districts in 21 countries as part of active elimination efforts.

A major success in 2021 was the confirmation of the elimination of transmission of **onchocerciasis** in Niger. The number of individuals receiving treatment rose between 2005 and 2021, with a slight drop during the pandemic. Between 2020 and 2021, the number of individuals no longer requiring treatment increased from 1.1 to 1.29 million respectively.

Treatment campaigns have resulted in a decrease in the prevalence of **schistosomiasis** among school age children by almost 60%. Further, among the 41 schistosomiasis-endemic countries requiring preventive chemotherapy in the region, 15 countries made significant progress in implementing elimination strategies such as large-scale treatment of at-risk population groups, access to safe water, improved sanitation, and hygiene education.

In 2022, Niger was classified as a country that no longer requires preventive chemotherapy for **soil-transmitted helminths**, moving to post-treatment surveillance. Several other countries may achieve this milestone during 2023. WHO is in the process of finalizing guidance and tools for use to verify elimination in countries that have made significant progress and have likely achieved this milestone.

To date, four countries have achieved elimination of **trachoma** as a public health problem in the African Region. In 2022, Burundi reported having achieved the prevalence targets for elimination. Implementation of the WHO SAFE strategy resulted in a decrease in the number of people requiring antibiotic treatment for trachoma from 189 million in 2014, to 105 million as of June 2022.

CONTROL

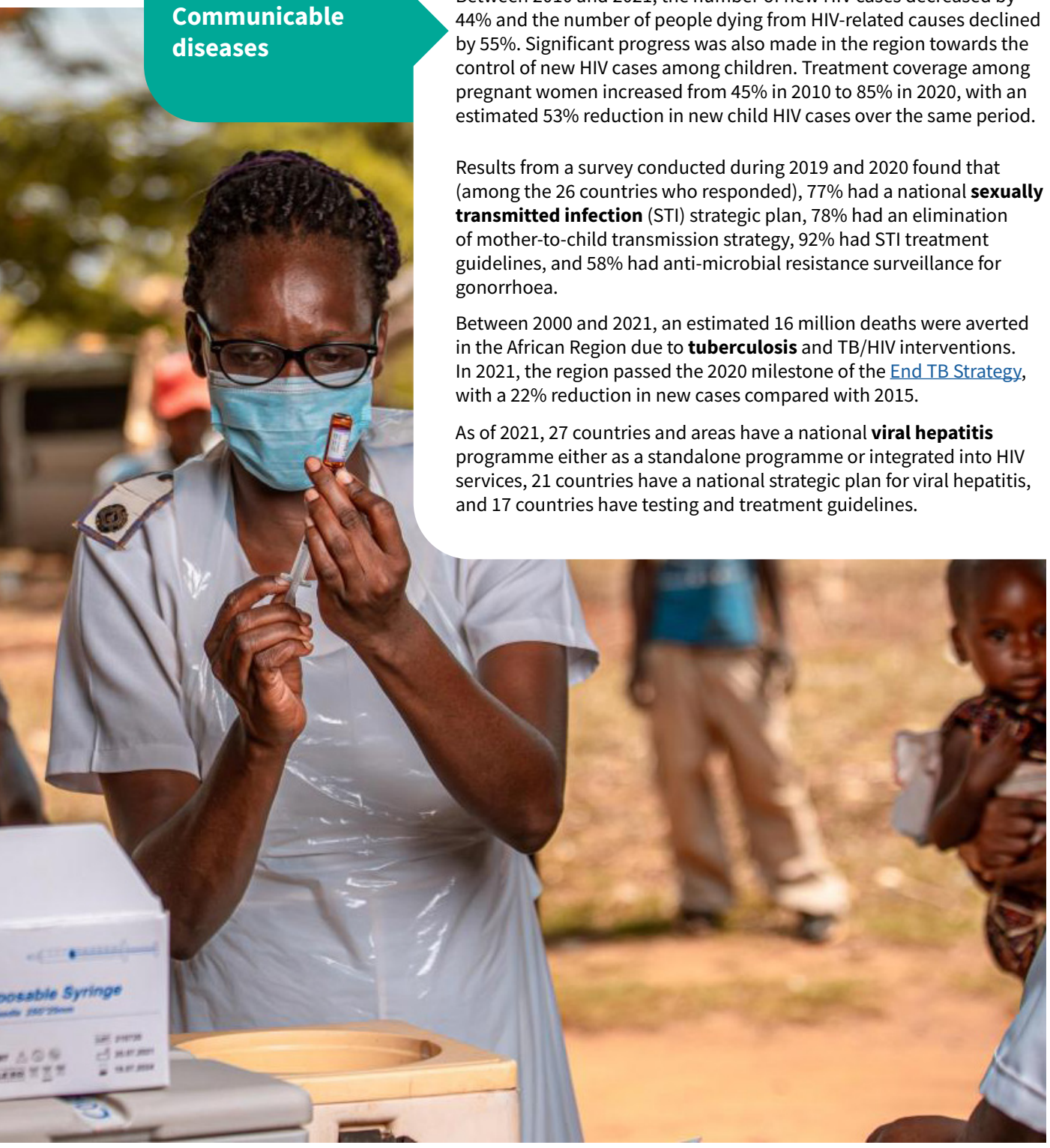
Communicable diseases

Despite challenges associated with the COVID-19 pandemic, substantial progress continues to be made in the fight against **HIV**. Between 2010 and 2021, the number of new HIV cases decreased by 44% and the number of people dying from HIV-related causes declined by 55%. Significant progress was also made in the region towards the control of new HIV cases among children. Treatment coverage among pregnant women increased from 45% in 2010 to 85% in 2020, with an estimated 53% reduction in new child HIV cases over the same period.

Results from a survey conducted during 2019 and 2020 found that (among the 26 countries who responded), 77% had a national **sexually transmitted infection** (STI) strategic plan, 78% had an elimination of mother-to-child transmission strategy, 92% had STI treatment guidelines, and 58% had anti-microbial resistance surveillance for gonorrhoea.

Between 2000 and 2021, an estimated 16 million deaths were averted in the African Region due to **tuberculosis** and TB/HIV interventions. In 2021, the region passed the 2020 milestone of the End TB Strategy, with a 22% reduction in new cases compared with 2015.

As of 2021, 27 countries and areas have a national **viral hepatitis** programme either as a standalone programme or integrated into HIV services, 21 countries have a national strategic plan for viral hepatitis, and 17 countries have testing and treatment guidelines.



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Noncommunicable diseases

Significant progress has been made across several of the targets for **cervical cancer** control in the region including vaccination, with 24 countries and areas introducing the HPV vaccine into their national immunization programmes. Screening for cervical cancer is available in 34 Member States and 16 countries have incorporated HPV DNA testing into their national programs. Screening and treatment of precancerous lesions has been implemented in 13 countries, radiation therapy is offered in 24 countries, and two countries have introduced palliative care into primary health care services.

Five countries have developed national treatment guidelines for **childhood cancer**. There has been ongoing development of regional advocacy and awareness-raising tools on childhood cancers for the region. Several key partnerships have been developed with key civil society actors involved in the field of childhood cancer.

WHO prioritizes an integrated and decentralized approach to the prevention and control of NCDs including **diabetes**. All countries implementing WHO PEN have included prevention and care for diabetes. In addition, WHO facilitated the donation of insulin to 28 countries in the region, to help cover gaps in the supply chain caused by the pandemic.

Four countries were supported to develop their national strategic plans for **ear health**. Planning is ongoing for a regional high-level roundtable on ear and hearing care and hearing loss to increase engagement of partners and philanthropic organizations. Centres of excellence for ear, eye, and oral health are under development in Kenya.

WHO has developed several tools for **eye health**. In 2022, the WHO Eye Care in Health Systems: Guide for Action was launched. This tool provides practical, step-by-step, guidance to support Member States in planning and implementing the recommendations of the World Report on Vision with the goal to provide integrated people-centred eye care services. A Portuguese version of the Regional Integrated People-centred Eye Care: Guide for Action has been published with four new related tools developed to support both strategic and operational planning for eye health.

At least 66% of countries have guidelines for the integration of **mental health** into primary health care and 82% of countries are providing training for primary health care workers. A framework to implement the Global Alcohol Action Plan is under development and will be presented to the Regional Committee in August 2023.

According to the mid-term assessment of implementation of the regional **oral health** strategy conducted in 2021, 38 countries in the African Region have an oral health unit in their Ministries of Health, 17 countries have at least one national oral health document, 28 countries are defining oral health services in essential healthcare packages, and 31 countries have integrated oral health indicators into existing integrated surveillance systems.

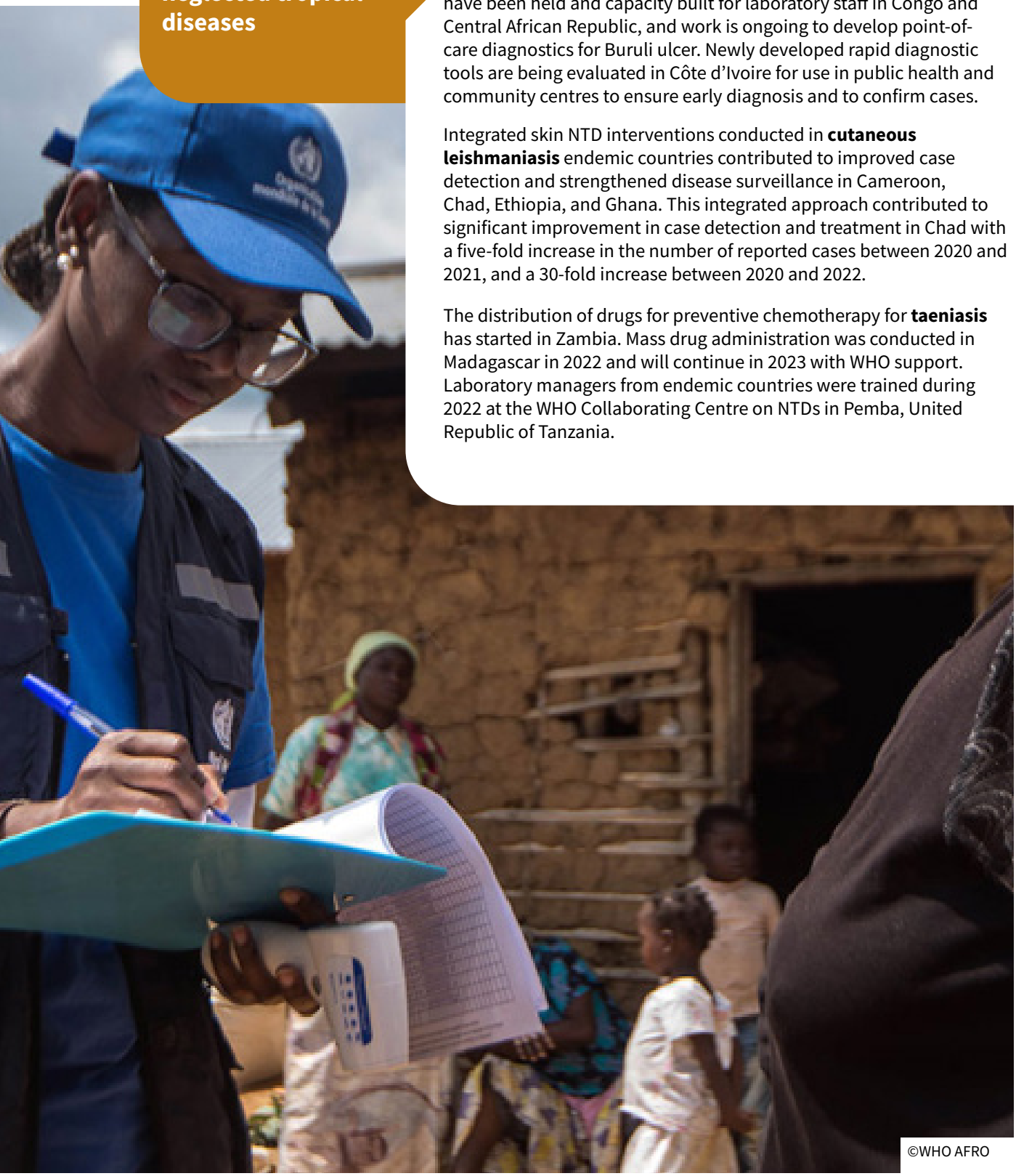
In 2022, African health ministers launched a campaign to ramp up awareness and bolster prevention and care to curb the toll of **sickle cell disease** in the region. The campaign also seeks to raise public awareness of the disease in schools, communities, health institutions, and the media and advocate stronger health systems to ensure quality and uninterrupted services and equitable access to medicines and innovative tools. The regional strategy to address severe NCDs, including sickle cell disease, at first-level referral health facilities was adopted and development of a regional framework guidance for Centres of Excellence for sickle cell disease management is ongoing.

Case management neglected tropical diseases

Overall, the number of **Buruli ulcer** cases reported in the region fell from 4850 cases in 2010 to 1370 in 2021, a 71% decrease. WHO has established a Buruli ulcer Laboratory Network for Africa, including all the laboratories in endemic countries doing PCR testing to ensure standardization and quality. Virtual Africa Buruli ulcer LabNet meetings have been held and capacity built for laboratory staff in Congo and Central African Republic, and work is ongoing to develop point-of-care diagnostics for Buruli ulcer. Newly developed rapid diagnostic tools are being evaluated in Côte d'Ivoire for use in public health and community centres to ensure early diagnosis and to confirm cases.

Integrated skin NTD interventions conducted in **cutaneous leishmaniasis** endemic countries contributed to improved case detection and strengthened disease surveillance in Cameroon, Chad, Ethiopia, and Ghana. This integrated approach contributed to significant improvement in case detection and treatment in Chad with a five-fold increase in the number of reported cases between 2020 and 2021, and a 30-fold increase between 2020 and 2022.

The distribution of drugs for preventive chemotherapy for **taeniasis** has started in Zambia. Mass drug administration was conducted in Madagascar in 2022 and will continue in 2023 with WHO support. Laboratory managers from endemic countries were trained during 2022 at the WHO Collaborating Centre on NTDs in Pemba, United Republic of Tanzania.



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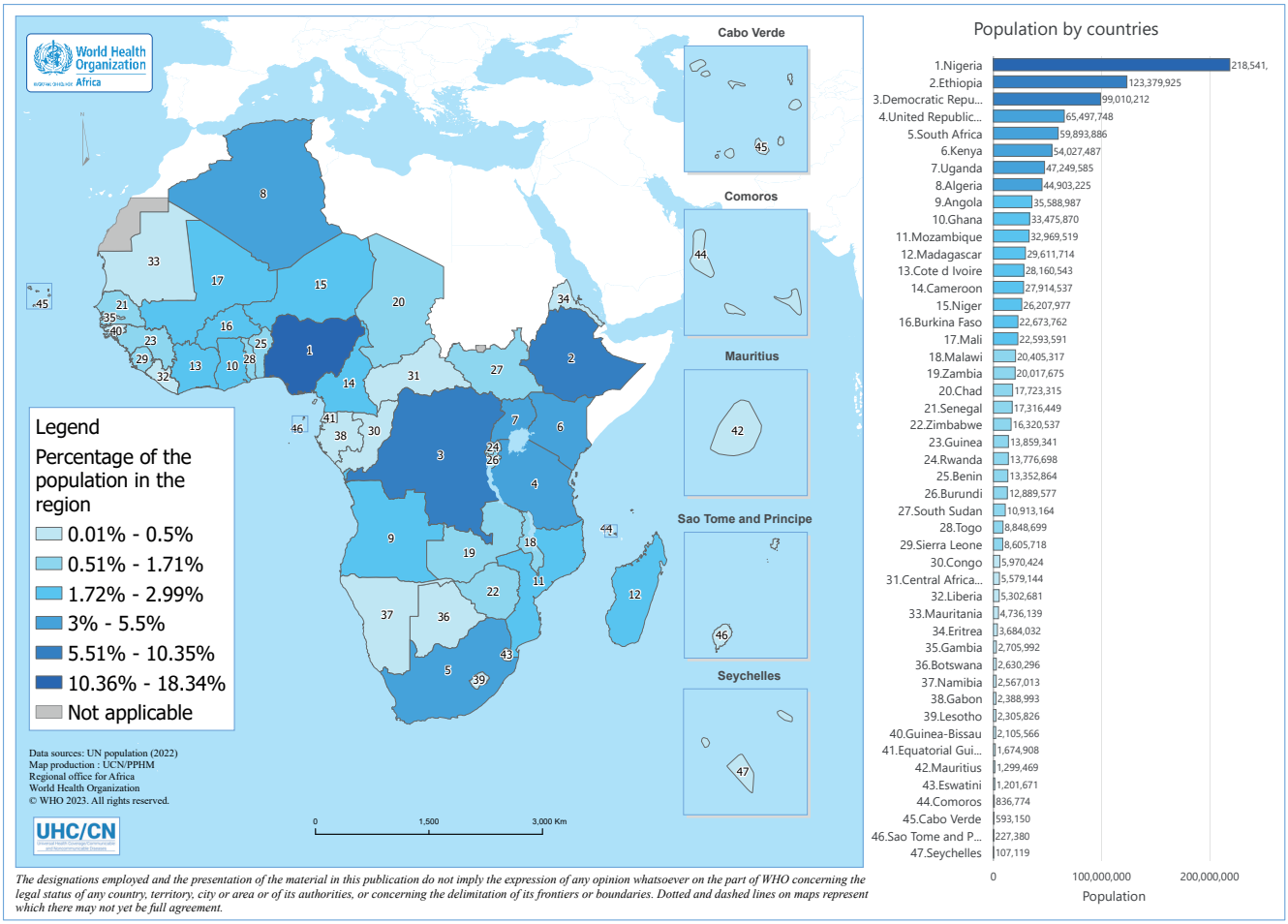
Health and wellbeing in the WHO African Region: Understanding the burden of disease

Home to approximately 1.1 billion people – 14% of the world's population – the WHO African Region is comprised of 47 diverse Member States (see Figure 1). Despite real improvements in disease management, health and socioeconomic development remain limited by disease burdens that are disproportionate to the region's population. While the region has seen overall increases in life expectancy and healthy life expectancy over the past 20 years, available evidence shows that the COVID-19 pandemic has slowed progress towards achievement of the SDGs.[1]

The report of the Secretariat to the 72nd Regional Committee Meeting for Africa noted that in the region, only six countries (Algeria, Cabo Verde, Mauritius, Namibia, Seychelles, and South Africa) have managed to increase health service coverage while simultaneously reducing catastrophic health spending.[2] In 2020, 408.6 million people in sub-Saharan Africa had no access to healthcare, with Somalia and Chad at 58% and 51% of their populations respectively, while South Africa had the highest coverage, with 87% of the population with access.[3] Existing data suggest that coverage of NCD care remains low, with many services only available at tertiary facilities.

Figure 1 Map of the WHO African Region



A key negative impact of the COVID-19 pandemic was the diversion of health system resources, which disrupted the delivery of essential health services and exposed the ongoing weaknesses and vulnerability of national health systems to stay on track towards achieving the SDGs. A study in South Africa on the impact of COVID-19 on routine primary healthcare services, for example, showed a reduction in access to, use, and quality of routine health services. The long-term effects are still being assessed.[4]

The region faces several disease management challenges. Communicable diseases continue to be important causes of illness and death, although the burden from noncommunicable diseases (NCDs) is growing rapidly in association with aging populations and urbanization. For several countries and areas, neglected tropical diseases (NTDs) remain a significant public health concern. The region is home to several country-specific, multidimensional challenges, with protracted and emerging conflicts driving humanitarian crises in 13 countries and areas. These emergencies are exacerbating the risks of disease outbreaks and nutritional crises, stretching already overworked health systems.

Communicable diseases

Communicable diseases are caused by microorganisms such as bacteria, viruses, parasites, and fungi that can be spread, directly or indirectly, from one person to another.

Realistic coronavirus © Photo Freepik

From 1 July 2021 to 30 June 2022, 112 of the 130 acute public health events reported to the WHO Regional Office for Africa were infectious disease outbreaks.[5] Worryingly, the control of priority infectious diseases such as malaria and some vaccine preventable diseases has stagnated in recent years and the SDG targets for malaria are not likely to be met.

The pandemic significantly disrupted routine immunization services – leaving millions of children vulnerable to vaccine preventable diseases, as evidenced by surging case numbers. Almost 17 500 cases of measles were reported in 2022, a 400% increase compared to the same time in 2021.[6] Twenty-four countries confirmed outbreaks of circulating vaccine derived polioviruses and 13 countries reported new yellow fever outbreaks. Immunization coverage for most of the diseases in the childhood immunization schedule lags behind the 90% target set in the Regional Strategic Plan for Immunization 2014–2020. While the region has seen significant progress in access to immunization services, coverage of the measles-containing vaccine remains far below the level needed to interrupt or contain transmission. Delayed administration of the birth dose of hepatitis B vaccine is a missed opportunity to prevent mother-to-child transmission of the virus and potentially the prevention of chronic hepatitis B, liver injury, and liver cancer.

The African Region continues to bear a heavy burden of tropical and vector-borne diseases, with climate-sensitive and epidemic-prone arboviruses becoming increasing public health threats. Major outbreaks of dengue, malaria, chikungunya, and yellow fever are impacting African communities, claiming lives, and overwhelming health systems. The region had an estimated 234 million malaria cases in 2021, approximately 95% of the global number of new cases. The World Malaria Report 2022 found that the Democratic Republic of Congo, Mozambique, Nigeria, and Uganda reported almost half of all global cases.

SDG 3.3 aims to end the epidemics of AIDS, TB, malaria and neglected tropical diseases, and combat hepatitis, water-borne diseases, and other communicable diseases by 2030. While considerable progress has been made in implementing global strategies for HIV, viral hepatitis, sexually transmitted infections (STIs), and TB, the burden of these diseases remains high, and the expected targets for 2020 have not been met in all countries and areas.

Despite the huge inroads in reducing the incidence of HIV, the region is home to two-thirds of all people living with HIV globally, and only 78% of people living with HIV are receiving treatment.[8] Many people living with HIV continue to die from preventable and treatable opportunistic infections: TB is the leading cause of death among people living with HIV. Further, some antiretroviral drugs may increase the risk of heart disease and diabetes, while HIV immunodeficiency increases the risk of some cancers.[9]

In 2021, the African Region passed the 2020 milestone of the End TB Strategy with a 22% reduction in new cases compared with 2015.[10] Despite this accomplishment, TB prevention and control programs are still facing challenges in the identification of cases among children. With an estimated 322 000 children and young adolescents aged 0–15 years (one third of cases among children under 15 years worldwide), increased measures are required to improve detection, bacterial confirmation, and treatment of paediatric TB.

Noncommunicable diseases

Noncommunicable diseases, also known as chronic diseases, tend to be of long duration and are the result of a combination of genetic, physiological, environmental and behavioural factors.

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Noncommunicable diseases (NCDs) are posing an increasing challenge for health systems in the African Region, which have, to date, focused on infectious diseases and maternal, neonatal, and child deaths. NCD-related mortality has increased from 24% of all deaths in 2000 to 37% in 2019.[11] NCDs are set to overtake communicable, maternal, neonatal, and nutritional diseases combined as the leading cause of death in sub-Saharan Africa by 2030. Four major NCDs, namely cancer, cardiovascular disease, chronic respiratory diseases, and diabetes, account for 70% of the burden of NCDs in the African Region.[12]

Cancer is the second leading cause of death globally, accounting for one in six deaths. In 2020, there were around 1.1 million new cancer cases and 700 000 cancer-related deaths in Africa.[13] The African Region has some of the highest reported rates of cervical cancer cases and deaths in the world, contributing 21% of global cervical cancer mortality, despite the availability of effective human papillomavirus (HPV) vaccines. There were almost 280 000 children and adolescents (aged 0–19 years) diagnosed with cancer worldwide in 2020 and almost 110 000 children died from cancer.

Low- and middle-income countries carry a disproportionate share of the burden of cancer mortality,[14] including in the African Region where childhood cancers are on the rise. Preventing and treating cancer is a pressing public health issue for the region, where access to care is limited. Only 3% of the world's cancer treatment facilities are in Africa and oncology services are only available in 22 sub-Saharan African countries, resulting in poor cancer survival rates.[15]

The number of people living with diabetes was 19 million in 2019 and is expected to reach 47 million by 2045, representing the highest projected rise across all WHO Regions. Diabetes is associated with a two- to threefold higher risk of TB, a twofold risk of death during TB treatment, a fourfold risk of TB relapse after treatment completion, and a twofold risk of multidrug resistant TB.[16] WHO first recommended collaborative activities to address TB and diabetes in 2011, but uptake varies. The Global Tuberculosis Report 2021 noted that only South Africa and the United Republic of Tanzania had plans for joint or bidirectional screening and co-management for TB and diabetes within their national strategic plans for NCDs.

Mental, neurological, and substance abuse (MNS) disorders account for a growing proportion of the overall burden of disease globally. While data remains limited, MNS disorders appear to be increasing in the African Region. In 2015, 17.9 million person-years were lost to disability from mental health problems, close to the number of years lost to disability from infectious and parasitic diseases (18.5 million person-years). With the competing health and development priorities in the region, mental health and psychosocial support services remain severely underfunded – with limited services available at outpatient facilities and as part of formal treatment centres.[17]

NCD prevention and control have been mainstreamed in the African Region with an increasing number of countries implementing the WHO Package of Essential Noncommunicable Disease Interventions (WHO PEN) for primary care in low-resource settings. The region has made inroads in NCD infrastructure, with 98% of countries establishing NCD units within the Ministry of Health and with at least one full-time technical or professional staff member as of 2019.[18] Despite this, universal health coverage indicators for NCDs are lagging behind those for communicable diseases and maternal and child health. District hospitals have not been able to meet the functional challenge of longitudinal care for patients with chronic and severe NCDs despite their human resource capacity.[19]

Neglected tropical diseases

Neglected tropical diseases (NTDs) are a group of diseases that place a constant and heavy burden primarily on the poorest, most marginalized, and isolated communities in the world.

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Africa carries 39% of the global burden of NTDs – equating to over 580 million people.[20] They are an increasing concern in the region, where they destroy lives, prevent children from attending school, and keep communities in generational cycles of poverty. More than 20 diseases categorized as NTDs are being targeted for eradication, elimination, or control. Nineteen of these diseases occur in the African Region, and 36 Member States are co-endemic for at least two NTDs.

These diseases can be devastating, causing severe pain, disabilities and deformities, malnutrition, stunted growth, and cognitive impairment. Anaemia caused by some of these diseases has a direct impact on maternal mortality. The UCN Cluster has focused its efforts on combatting the 12 NTDs that have the greatest impact on people in the region and for which there are effective preventive strategies or reliable diagnostic tests and effective treatment. There are two sub-categories of NTDs: those addressed by case management (CM-NTDs) and those that benefit from preventive chemotherapy (PC-NTDs).

CM-NTDs predominantly affect the poorest communities in the world – causing great suffering and leading to significant economic and social hardship for millions of people. Interventions to control CM-NTDs include early case detection and treatment, morbidity management, integrated disease surveillance, and integrated vector control and surveillance for vector-borne NTDs. Cross-cutting interventions include One Health and Integrated Skin-related NTD approaches. These approaches are essential for achieving disease specific control targets for NTDs and for identifying opportunities to integrate approaches for control and management of skin related NTDs.

The NTD goal of the Regional Framework for the Integrated Control, Elimination and Eradication of Tropical and Vector-Borne Disease 2022–2030, is to accelerate the control, elimination, and eradication of targeted NTDS in the African Region. The CM-NTD objectives of the framework include controlling morbidity due to Buruli ulcer and cutaneous leishmaniasis, and preventing disabilities due to Buruli ulcer, leprosy, and cutaneous leishmaniasis.

There are five high burden diseases that can be eliminated as public health concerns through treatment with preventive chemotherapy: lymphatic filariasis, onchocerciasis, schistomiasis, soil-transmitted helminths, and trachoma. This subset of diseases is referred to

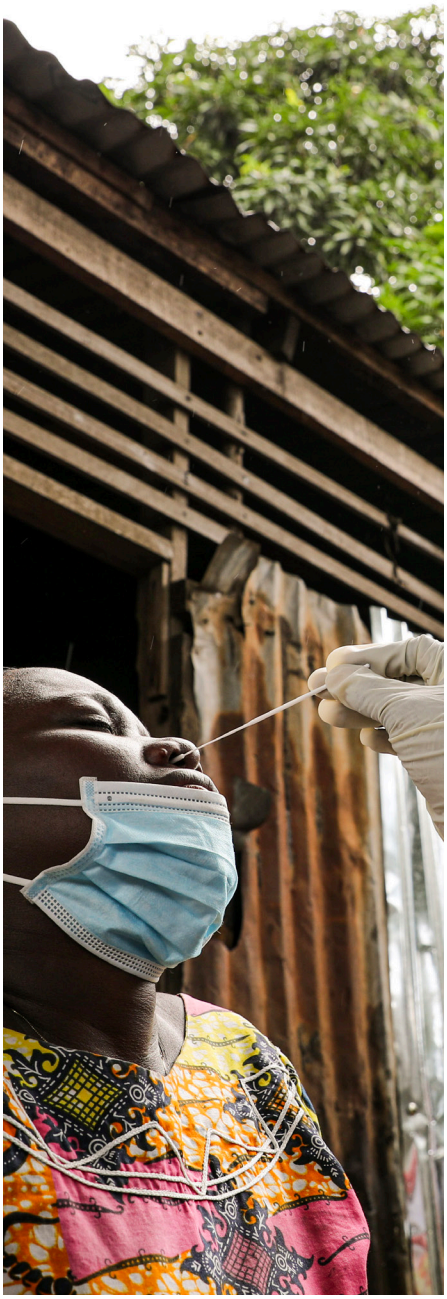
as preventive chemotherapy neglected tropical diseases, or PC-NTDs. Preventive chemotherapy is one of the largest, most successful public health interventions in history, benefitting more than one billion people worldwide through the large-scale distribution of safe, single administration, quality-assured medicines, either alone or in combination. It is also one of the oldest examples of integration across diseases. The earliest attempts to integrate control of schistosomiasis and soil-transmitted helminthiases through the co-administration of medicines, for example, date back to the 1980s.

The Global neglected tropical disease roadmap 2021—2030, seeks to reduce by 90% the number of people requiring treatment for NTDs; eliminate at least one neglected tropical disease from 100 countries; eradicate two diseases (dracunculiasis and yaws); and reduce disability related to these diseases by 75%. The African Region has made great strides towards elimination goals, with leprosy being all but eliminated as a public health problem, with only the Comoros yet to achieve the elimination goal in one of its three islands. In addition, 41 African countries have been certified free of dracunculiasis – a crippling parasitic disease – with another country, the Democratic Republic of Congo, preparing for certification in 2023. Benin, Cote d'Ivoire, and Togo have been validated for eliminating sleeping sickness as a public health problem and Equatorial Guinea, Ghana, Rwanda, and Uganda have started the validation process towards elimination.

The Expanded Special Project for the Elimination of Neglected Tropical Diseases (ESPEN), a WHO initiative launched in 2016, has achieved significant progress in the control and elimination of neglected tropical diseases. Advocacy by WHO and partners for treatment saw more than 2.7 billion tablets donated and distributed to countries within the African Region between 2016 and 2020, with 38 countries reaching 100% geographical coverage over one year for at least one NTD. The number of people requiring preventive chemotherapy decreased from 592 million in 2016, to 588 million in 2019.

Despite these significant advances, challenges remain – including inadequate government ownership of NTD control and elimination programmes, low level of integration of these diseases in mainstream health programmes, and insufficient funding, as well as the ongoing impacts from the COVID-19 pandemic. With the launch of the global roadmap in 2021 and development of the African Tropical and Vector-borne Disease framework for 2022—2030, WHO hopes to build on the lessons from previous NTD programmes, including innovations emerging from the pandemic response, to support countries in developing multi-year master plans. The focus will be on strengthening country ownership with domestic funding for neglected tropical diseases, applying a holistic approach to tackling the diseases and measuring impact to gauge progress on implementation.

The impact of COVID-19



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The COVID-19 pandemic had a catastrophic impact on health systems throughout the globe. In 2020, the pandemic disrupted essential health services in 92% of countries globally, 22.7 million children missed basic immunization services, there was an increase in malaria cases, and global deaths from TB rose for the first time since 2015.[21]

In the African Region, momentum towards achieving the 2030 SDG disease burden reduction targets has stalled. The 2020 milestones of the WHO Roadmap on neglected tropical diseases 2012–2020 and the Global technical strategy for Malaria 2016–2030, were not achieved and, by the end of 2020, malaria incidence and mortality had increased to 2010 levels. These increases were mainly attributed to service disruptions during the pandemic.

The pandemic had a dramatic impact on childhood immunization – the diversion of resources to roll out COVID-19 vaccination coupled with increased numbers of children living in conflict and fragile settings resulted in the largest fall in childhood immunization in three decades.[22] In 2021, 64% of age-eligible children in west and central Africa had received the third dose of the diphtheria tetanus toxoid and pertussis (DTP3) vaccine, and only 31% the second dose of the measles-containing-vaccine (MCV2) – well below the 95% target needed to prevent outbreaks. There were an estimated 4.4 million zero-dose children and another 2.4 million children who were under vaccinated, with Cameroon, Chad, the Democratic Republic of Congo, Guinea, and Nigeria reporting the highest numbers of zero-dose and under vaccinated children.

The corresponding data for eastern and southern Africa showed that 74% of age-eligible children had received DTP3 and 50% MCV2. An estimated 3.6 million zero-dose children and 1 million under vaccinated children were reported from the sub-region, with the highest number of zero-dose and under vaccinated children in Angola, Ethiopia, Madagascar, Somalia, and the United Republic of Tanzania. At least 20 countries in the region reported a measles outbreak in 2022.

COVID-19 further reduced the limited access of key populations to HIV and TB services. Community HIV organizations noted that key populations have had less access to social protection, including programmes to mitigate the impact of COVID-19. The pandemic has exposed the health and human security implications of delayed access to vital medicines, vaccines, and health technologies, and the lack of adequate investments in primary health care and universal health coverage.[23]

Across the region, the COVID-19 pandemic continues to disrupt the delivery of essential health services. On average, countries in the African Region reported greater disruptions across tracer service areas compared to other regions. It was also observed that high- and upper-middle-income countries reported fewer service disruptions than countries in other income groups. Findings from the third round of the global pulse survey conducted in 2021 demonstrated that substantial disruptions persisted after the first year of the pandemic. More than 90% of the 36 participating countries, territories, and areas reported one or more disruptions to essential health services, representing only a marginal improvement on 2020 survey findings.

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Effective disease management: Progress report

This report provides a comprehensive update of progress in disease management activities in the WHO African Region from 2020 to 2022. It presents high-level key achievements for selected diseases that have been targeted for eradication, elimination, or control. The online appendices provide detailed, disease-specific information and outcomes resulting from focused efforts in the region.

The pathway for effective disease management in the African Region has three core strategies: eradication, elimination, and control (see Box 1). Of these, eradication is the most desirable. When successful, eradication provides significant benefits to individuals and for broader public health, it also allows the discontinuation of control measures. While the concept of eradication may seem simple, achieving it is not – with only two diseases, smallpox and rinderpest, officially declared as globally eradicated to date.[24]

Box 1 Disease management strategies[25]	
Eradication	
Disease eradication occurs when deliberate public health efforts lead to the permanent global reduction of a disease to zero cases, with no risk of reintroduction.	
Elimination	**Control**
Disease elimination is the local reduction of new cases of a specific disease to zero, with minimal risk of reintroduction, because of deliberate health intervention efforts. When reached, continued measures are required to maintain elimination.	Disease control is generally accepted as the reduction of incidence, prevalence, morbidity, or mortality to a locally acceptable level because of deliberate health intervention efforts; continued intervention measures are required to maintain the reduction.

A range of factors determine the management strategy best suited to address individual diseases, including the type of disease, the disease vector, and the likelihood of success. There are several diseases in the African Region that are considered significant public health threats, and as such, have been prioritized for disease management using a range of regional eradication, elimination, and control strategies (see Box 2).

Box 2 Priority diseases by management strategy			
Goal	**Communicable diseases**	**Noncommunicable diseases**	**Neglected tropical diseases**
Eradication	Poliovirus (polio)	-	Dracunculiasis (Guinea worm disease) Yaws
Elimination	Hepatitis B Malaria Maternal & neonatal tetanus Measles & rubella Meningitis Yellow fever	Noma	Human African trypanosomiasis (HAT) Leprosy Visceral leishmaniasis Lymphatic filariasis Onchocerciasis Schistosomiasis Soil-transmitted helminthiasis (STH) Trachoma
Control	Human immunodeficiency virus (HIV) Sexually transmitted infections (STIs) Tuberculosis (TB) Viral hepatitis	Cervical cancer Childhood cancer Diabetes Ear health Eye health Mental, neurological, & substance abuse (MNS) disorders Oral diseases Sickle cell disease	Buruli ulcer Cutaneous leishmaniasis Taeniasis

ERADICATION

Eradication requires a robust combination of public health strategies – including immunization, surveillance, and containment. These strategies represent the best combination of public health measures for the overall reduction in disease burden. Three diseases are targeted for eradication within the WHO African Region. They include the communicable disease polio, and two neglected tropical diseases: dracunculiasis, a debilitating parasitic disease that predominately affects rural populations who lack access to safe drinking water; and yaws, a bacterial infection that mainly affects children living in poor communities in warm, humid, and tropical areas.

Communicable diseases

Poliomyelitis (polio)

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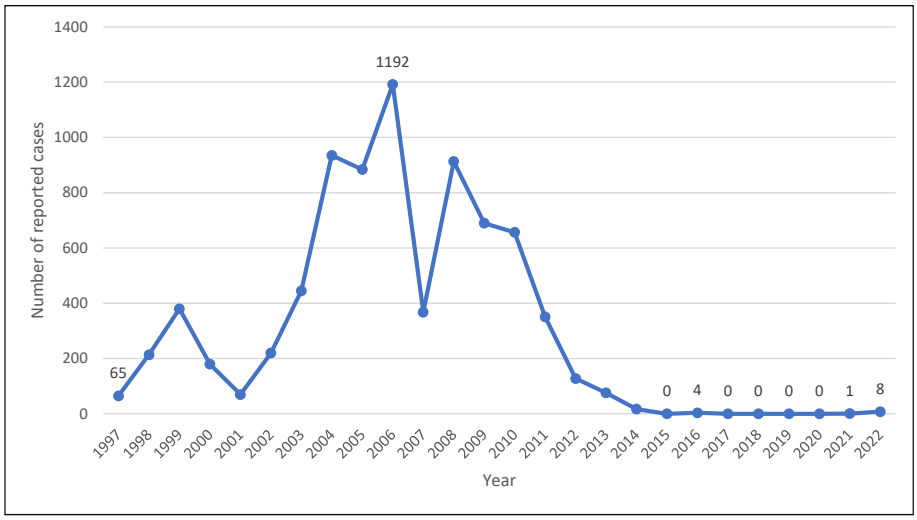
Poliomyelitis (polio) is a highly infectious disease caused by a virus. It invades the nervous system and can cause total paralysis within hours, particularly among children under five. The virus is transmitted from person to person mainly through faecal matter or, less frequently, through contaminated food and water. While there is no cure for polio, the disease can be prevented through administration of a safe, simple, and effective vaccine.

Wild poliovirus cases have decreased significantly since the World Health Assembly adopted a resolution for the worldwide eradication of polio in 1988: from an estimated 350 000 cases in more than 125 endemic countries, to six reported cases in three countries in 2021. While the African Region was certified as free of indigenous cases in August 2020 after eliminating all forms of wild poliovirus (see Figure 2),[i] two significant challenges continue to slow eradication efforts. Wild poliovirus type 1 (WPV1) remains endemic in two countries, Afghanistan and Pakistan, where transmission has never been interrupted. The importation of cases to other countries remains a serious concern – as demonstrated in 2021 and 2022 when both Malawi and Mozambique experienced cases of WPV1, which laboratory analysis showed were linked to a strain circulating in Pakistan in 2019.

Figure 2. Reported wild poliovirus cases in the WHO African Region, 1997–2022



Source: WHO Regional Office for Africa Programme Data (as of May 2023)

[i] Indigenous cases refer to those originating or occurring naturally in a particular place; as opposed to those imported from another country, for example.

Vaccine-derived polioviruses are caused when a strain of the weakened poliovirus found in the oral polio vaccine (OPV) changes over time and starts behaving like the wild virus. The emergence of circulating vaccine-derived polioviruses (cVDPV), while rare, are increasingly affecting communities with low immunization rates. They became increasingly prevalent in the African Region in 2016, following the global switch from trivalent OPV (containing vaccine against all three types of polioviruses) to the bivalent OPV (only containing vaccine against type 1 and type 3 polioviruses). Vaccine-derived poliovirus type 2 (cVDPV2) is the most common form of polio in the African Region, and the risk of international spread remains high – as evidenced in 2022 with high transmission in the Democratic Republic of Congo spreading to southern Africa (Botswana and Zambia), and spread from Chad to Sudan, and from Yemen to Djibouti and Somalia.

Key achievements

On 25 August 2020, the independent Africa Regional Commission for the Certification of poliomyelitis eradication certified the African Region free of indigenous wild poliovirus. This historic achievement marks a key milestone towards the eradication of poliomyelitis in the region.

WHO and partners have worked with national authorities to strengthen planning, delivery, and monitoring of vaccination campaigns to ensure that every child under five living in an at-risk country is fully vaccinated against polio. After confirmation of WPV cases in Malawi and Mozambique in 2021 and 2022 respectively, WHO swiftly launched response measures, including risk assessments, detailed epidemiological investigations, and supplementary immunization activities, including five multi-country emergency outbreak response vaccination campaigns.

The novel oral polio vaccine type 2, first launched in 2021 to stop outbreaks of cVDPV2, is now used to respond to every outbreak in the region and has been successfully implemented in 31 Member States to date. Over 95% of the vaccine used to date has been in Africa, which continues to carry the biggest burden of type 2 circulating vaccine derived poliovirus outbreaks.[26]

Success story
Strengthening polio outbreak response in southern Africa

Technical experts from the WHO Regional Office for Africa led a joint Global Polio Eradication Initiative rapid response team deployment to Malawi after the first case of wild poliovirus type 1 was detected in early 2022. Working with national authorities, they provided immediate surge support – including active case search, establishing environmental surveillance systems, conducting risk assessments, and supporting education campaigns.

When cases were later detected in Mozambique, WHO and partners planned and delivered a multi-country response strategy, focussing on a mass immunization campaign that administered over 36 million doses of polio vaccine to over 26 million children in Mozambique and neighbouring Malawi, Tanzania, and Zambia. Zimbabwe also joined the vaccination campaign to ensure full coverage of all children aged under five.

The United Republic of Tanzania has launched its second round of vaccination against wild polio. ©WHO AFRO

Beyond vaccination, WHO and partners have worked to expand two types of surveillance to detect potential future polio outbreaks in the region: acute flaccid paralysis (AFP) surveillance and environmental surveillance. AFP surveillance aims to detect the physical symptoms of polio, mainly paralysis, while environmental surveillance seeks to find samples of wastewater containing traces of polio. In Zambia, for instance, WHO works with local environmental surveillance teams to conduct regular sampling at sewage treatment plants to provide critical early warning signals on potential disease outbreaks.

In response to the outbreak in Mozambique in 2022, Tanzania launched the use of Open Data Kit, a simple mobile application that provides software and standards for electronic data collection in the field. Through an editable form, independent monitors, vaccinators, supervisors, and health workers can plan and evaluate the quality of a vaccination campaign by logging data and key observations in the forms. An information dashboard provides near real-time geolocation points where vaccination posts can be set up, how many health centres have been visited, the quality of markings on houses visited by vaccinators as well as the quality of finger markers used to identify children who have received the vaccine. The application allows health workers to easily determine the location of children who have missed their vaccination.

Box 3 Key achievements in polio eradication		
Vaccination	**Surveillance**	**Innovation**
Administered over 36 million OPV doses to 26 million children in five countries	Strengthened and expanded AFP and environmental surveillance to ensure early detection and effective response	Deployed digital tools to ensure reliable data for effective disease surveillance and outbreak response

Challenges and priorities

Over the last decade, the Global Polio Eradication Initiative has made steady progress on the path to eradication. Wild poliovirus types 2 and 3 were declared eradicated in 2015 and 2019 respectively, and most recently, the African Region was certified free of wild poliovirus in 2020. However, the final steps towards eradication have proven the most difficult, with low levels of immunity a critical challenge in stopping the circulation of vaccine-derived polioviruses (see Box 4). At the thirty-fourth meeting of the Emergency Committee under the International Health Regulations (IHR) on the international spread of poliovirus, held in January 2023, the Committee recommended that poliovirus remains a Public Health Emergency of International Concern (PHEIC), while also recognising the lengthy duration of the polio PHEIC and the need to explore alternative measures as part of eradication efforts.

Box 4 Key challenges in polio eradication			
Gaps in routine surveillance systems	Low routine vaccination coverage & vaccine refusal in certain communities	Continued outbreaks of cVDPVs	Regional migration and displacement

The impact of the COVID-19 pandemic continues to have a significant, negative impact on immunization rates worldwide, with routine immunization for polio being no exception. There is a clear need to focus on the more than 25 million 'zero-dose children', who have never received vaccine doses – including the estimated 7.7 million zero-dose children living in the African Region. Polio eradication priorities for 2023 are focused on three core areas: to stop the circulation of all types of polioviruses and prepare countries to respond effectively; to accelerate detection through AFP and environmental surveillance, and a strong laboratory network; and to maintain essential functions through strengthening routine immunization, which is the backbone of polio eradication.

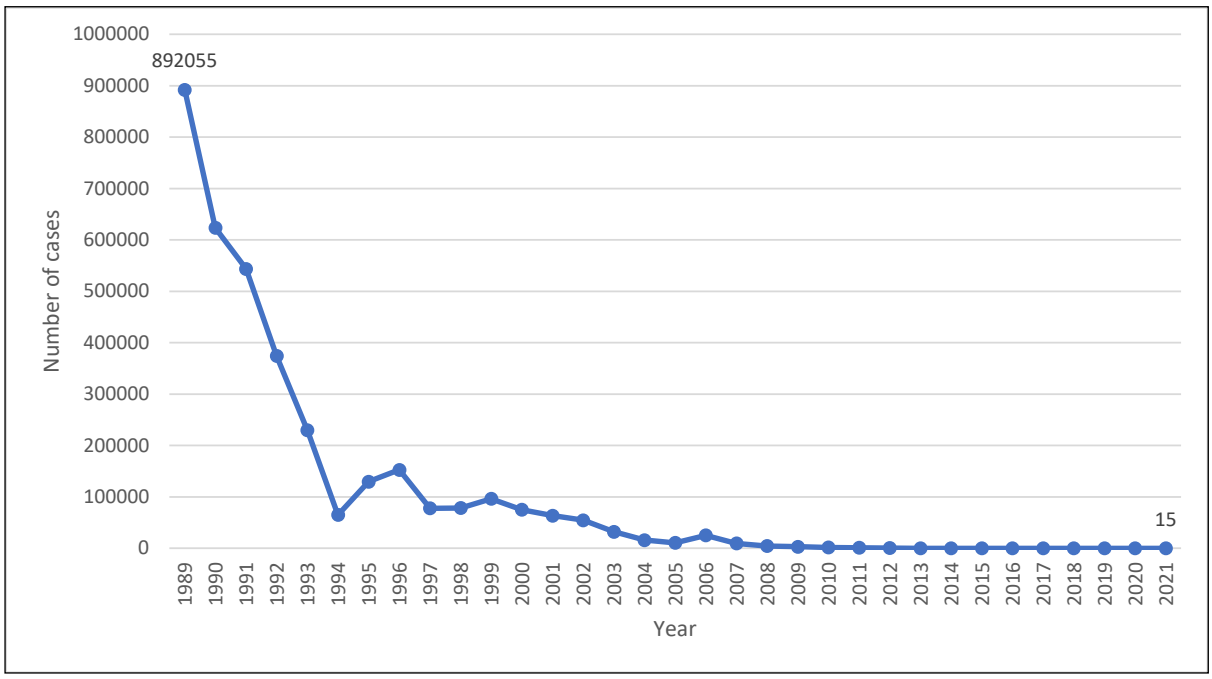
Neglected tropical diseases

Dracunculiasis (Guinea worm disease)

Dracunculiasis is a crippling parasitic disease caused by infection with *Dracunculus medinensis*, a long, thread-like worm (the Guinea worm) that affects humans and a few other animals, including dogs. Guinea worms live in ponds, rivers, and creeks across Africa, but are mostly endemic to sub-Saharan Africa. Guinea worm disease mainly affects rural populations who lack access to safe drinking water. There are no vaccines or drugs for Guinea worm disease, and though there are usually no long-term complications, infection confers no immunity, so people can get repeatedly infected over their lifetimes.

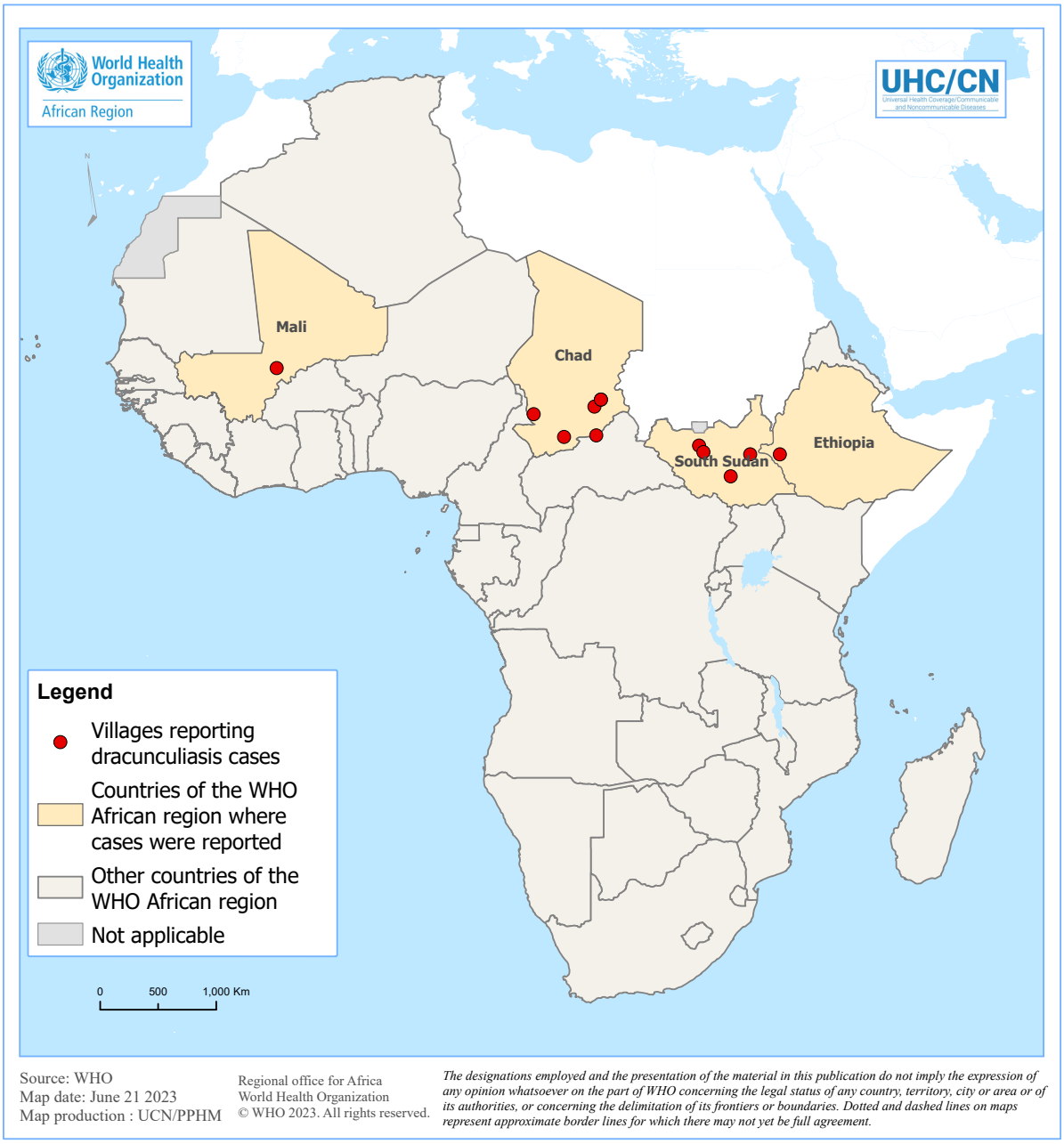
Guinea worm disease is on the verge of full global eradication, with 188 Member States certified free of Guinea worm transmission, and only 13 human cases reported in 2022, the lowest annual figure since 1986 when global efforts to eradicate the disease began (see Figure 3). Five countries remain to be certified – all in the African Region – including Angola, Chad, Ethiopia, Mali, and South Sudan, where cases continue to be acquired and transmitted locally (see Figure 4).

Figure 3. Annual number of reported dracunculiasis cases worldwide, 1989–2021



Source: World Health Organization. Dracunculiasis eradication: global surveillance summary, 2021. Weekly epidemiological record. 2022;97(Nos. 21/22);225–247 (https://www.who.int/publications/i/item/who-wer9721-22-225-247, accessed 8 June 2023).

Figure 4. Localities/villages reporting human cases of dracunculiasis, WHO African Region, 2021



Key achievements

Significant progress has been made in the region to interrupt Guinea worm transmission and certify Member States as being free of the disease (see Box 5). During 2022, only 13 human cases were reported from Chad (6), Ethiopia (1) and South Sudan (6). This equates to an almost 100% reduction in the number of annual cases in comparison to data from 1989 and is comparable to the 15 cases reported in 2021.

The establishment of national and global databases, including the Dracunculiasis Eradication Portal, have been critical in strengthening country and regional capacity to monitor changes in the epidemiological situation.

Box 5 Key achievements in Guinea worm eradication		
Country responses		
Angola Ongoing work to stop transmission and expanded surveillance, which resulted in the identification of seven infected dogs and zero human cases in 2022	**Chad, Ethiopia & South Sudan** Strengthened interventions, including preventive and proactive tethering of dogs, to reduce the intensity of transmission	**Mali** Intensified surveillance among the Niger river inland areas resulted in an increase in the reported number of animals with infections, helping to reduce animal-to-human transmission
Chad-Cameroon & Chad-Central African Republic Concerted efforts to reduce cross-border transmission	**Angola, Chad, Ethiopia, Mali & South Sudan** Mapping of endemic villages and establishment of community-based surveillance	**Angola, Chad, Democratic Republic of Congo, Ethiopia, Mali & South Sudan** Active case searches conducted using household surveys, national immunization days and mass drug distribution campaigns

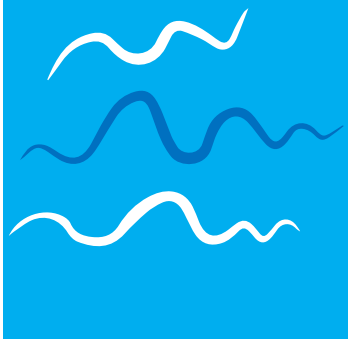
Challenges and priorities

Guinea worm eradication efforts have been in place for over 30 years. As with any disease targeted for eradication, this last stage is often the most difficult and expensive, and there is both operational and donor fatigue (see Box 6). Concerted efforts are required to sustain gains already made and support Member States where eradication remains a challenge.

Box 6 Key challenges in Guinea worm eradication			
Reduction in global funding	Lack of safe water supply in endemic countries	Changing dynamics of Guinea worm epidemiology and infections	Cross-border transmission risks

As of 2022, 42 of the 47 Member States in the region have been certified as free of Guinea worm, with the disease remaining endemic in five countries, including Angola and Mali, which are reporting only animal cases. Cameroon, a certified country, continues to report animal infections, a spill-over from the ongoing transmission in neighbouring Chad. Efforts are being made to ensure eradication efforts in the remaining Member States (including Cameroon and Central African Republic who remain at high risk due to ongoing transmission in neighbouring Chad) are sustained to break transmission in both humans and animals and contribute to certification of global eradication by the end of 2030.

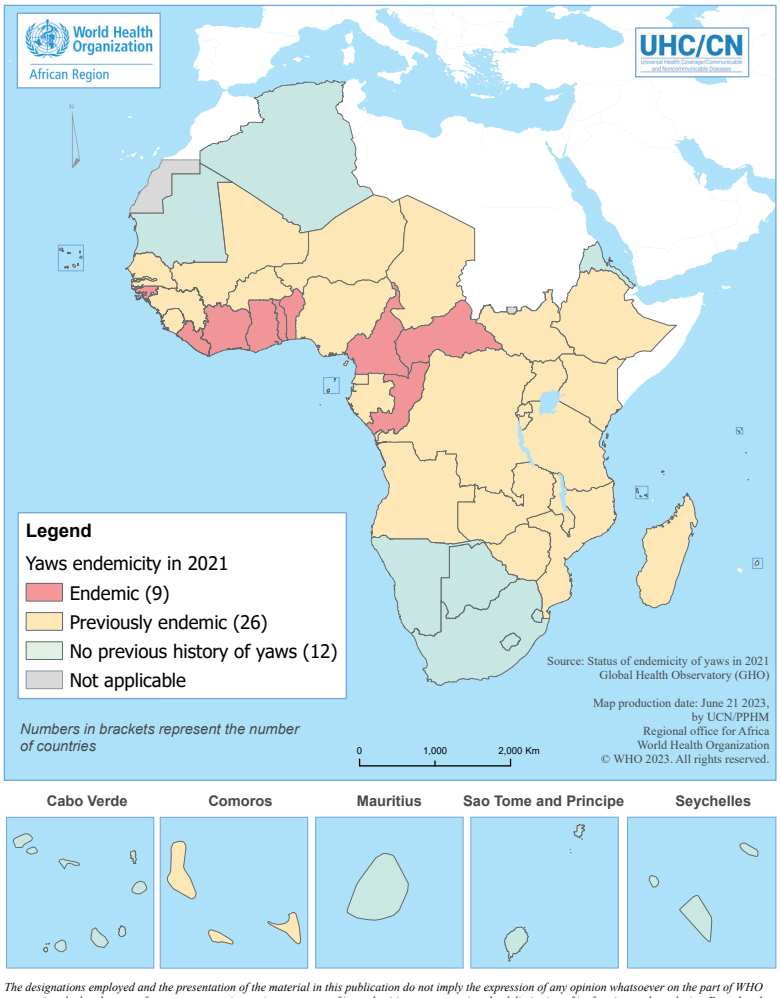
Yaws



Yaws is a chronic disease caused by bacteria that affects the skin, bone and cartilage and causes noncancerous lumps and ulcers. Yaws most commonly affects children (around 75–80% of cases are among children), particularly those living in poor, rural communities and in warm, humid areas of tropical forest, where access to health services remains limited. Although yaws was one of the first diseases targeted for eradication in the 1950s using large-scale mass administration of an oral antibiotic, by 2020, only India had been certified for yaws elimination.

As of 2021, nine countries in the African Region are known to be endemic (Benin, Cameroon, Central African Republic, Congo, Côte d'Ivoire, Democratic Republic of Congo, Ghana, Liberia, and Togo); 26 countries were previously endemic, with their status unknown; and another 12 countries had no previous history of yaws (see Figure 5).

Figure 5 Map of yaws endemicity, WHO African Region, 2021



Source: Status of endemicity of yaws. In: WHO Global Health Observatory [online database]. Geneva: World Health Organization; 2022 (https://www.who.int/data/gho/data/indicators/indicator-details/GHO/status-of-yaws-endemicity, accessed 9 June 2023).

Key achievements

While progress in the region remains mixed, 12 out of 47 Member States (26%) are expected to be certified by the end of 2023. In addition:

- Three out of nine known yaws-endemic countries in the African Region (Cameroon, Central African Republic, and Congo) have been implementing total community treatment for yaws eradication since 2020, after completing mapping. The six other endemic countries have been implementing total targeted treatment (treating clinical cases and contacts) with the support of WHO and partners.
- Integrated surveillance strengthening activities for skin based NTDs have been implemented in all endemic countries. With the support of WHO, the 26 previously endemic countries are being encouraged to integrate yaws into their NTD master plans and strengthen their integrated surveillance systems.
- Continued support for countries via WHO-secured donations of an oral antibiotic (azithromycin). In 2020, the pharmaceutical company EMS agreed, with the support of WHO, to send 1.4 million tablets of azithromycin to Cameroon. From 2021 to 2023, EMS will provide 9 million tablets to support mass drug administration in several countries, including Cameroon, Central African Republic, and Congo.

Challenges and priorities

As there is no vaccine for yaws, the only public health intervention that can bring about eradication is mass drug administration with one of two effective antibiotics. However, insufficient funding for implementation, a lack of access to rapid diagnostic tests and laboratory supplies and equipment, weak integrated surveillance systems for yaws, the unknown status of yaws in 26 countries, and potential emergence of azithromycin-resistant strains remain key challenges (see Box 7).

Box 7 Challenges and priorities in yaws eradication

Insufficient funding	Lack of access to tests	Weak integrated surveillance systems	Potential emergence of antibiotic resistance
WHO is supporting countries with resource mobilization	WHO is providing rapid diagnostic tests and supporting access to reference laboratories	WHO is supporting countries to develop integrated NTD pans	WHO is working with partners to test new methods for antibiotic resistance

ELIMINATION

Disease elimination aims to reduce the number of new cases of a disease down to a level where the impact of that disease is no longer a public health concern, and the disease can be managed by health systems operating under normal conditions. It is defined as the reduction of new cases of a specific disease to zero, in a defined geographical area, with minimal risk of reintroduction, due to deliberate efforts.[27] When reached, continued actions are required to maintain elimination or to further advance interruption of transmission.

This section reviews the progress made in reducing the disease burden from 15 diseases targeted for elimination in the African Region, including:

- Six communicable diseases: hepatitis B, malaria, maternal and neonatal tetanus, measles and rubella, meningitis, and yellow fever.
- One noncommunicable disease: noma.
- Eight neglected tropical diseases, including:
  - Three NTDs that are amenable to case management (CM-NTDs): human African trypanosomiasis (HAT), leprosy, and visceral leishmaniases.
  - Five NTDs that are amenable to preventive chemotherapy (PC-NTDs): lymphatic filariasis, onchocerciasis, schistosomiasis, soil-transmitted helminths, and trachoma.

Communicable diseases

Hepatitis B

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Hepatitis B is a potentially life-threatening liver infection caused by the hepatitis B virus, and a major global health problem. It can cause chronic infection, putting individuals at high risk of death from liver scarring (cirrhosis) and liver cancer. Children under the age of five years face the greatest risk, with up to 90% of hepatitis B infections occurring in childhood becoming chronic, compared with only 10% of infections that occur in adulthood.[28] Newborns who acquire hepatitis B through mother-to-child transmission are at the highest risk of chronic infection.

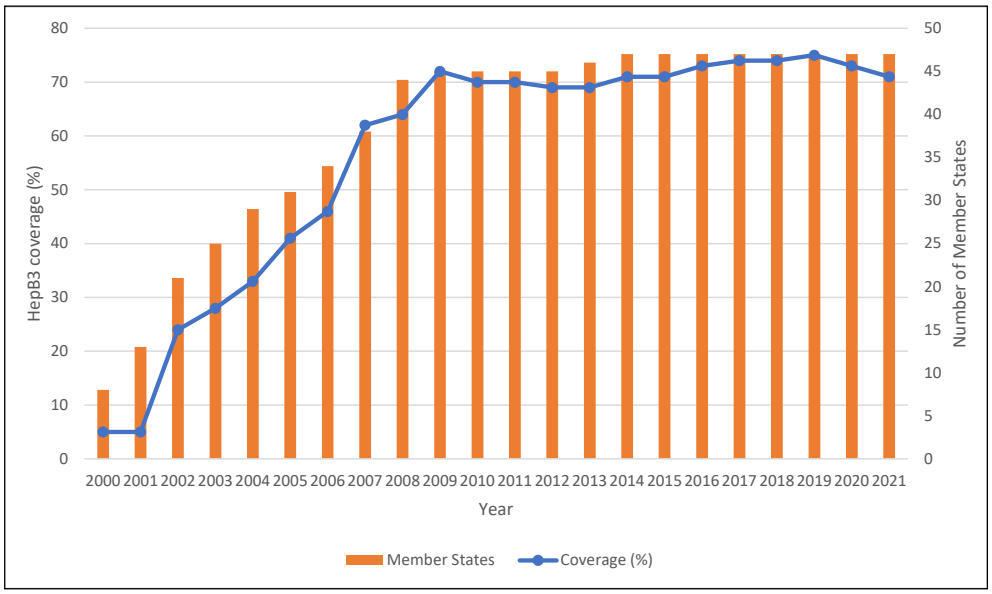
The burden of hepatitis B is highest in the WHO Western Pacific and African Regions, where 116 million and 81 million people, respectively, have chronic hepatitis B. Globally, an estimated 6.4 million children aged five years or less are living with chronic hepatitis B: an estimated 4.3 million (70%) live in the African Region.[29] As of 2019, the number of new cases of hepatitis B among children less than five years was 2.5%, similar to data from 2016 (3%).

Key achievements

Hepatitis B vaccine was included in the routine immunization schedules of all 47 Member States in the African Region by 2014, and coverage of the HepB3 vaccine has remained above 70% since then (see Figure 6). As of 2021, 14 Member States in the region provide a birth dose of the vaccine (HepBBD) to all newborns within 24 hours of birth, however coverage is much lower, at 17% in 2021 (see Figure 7).

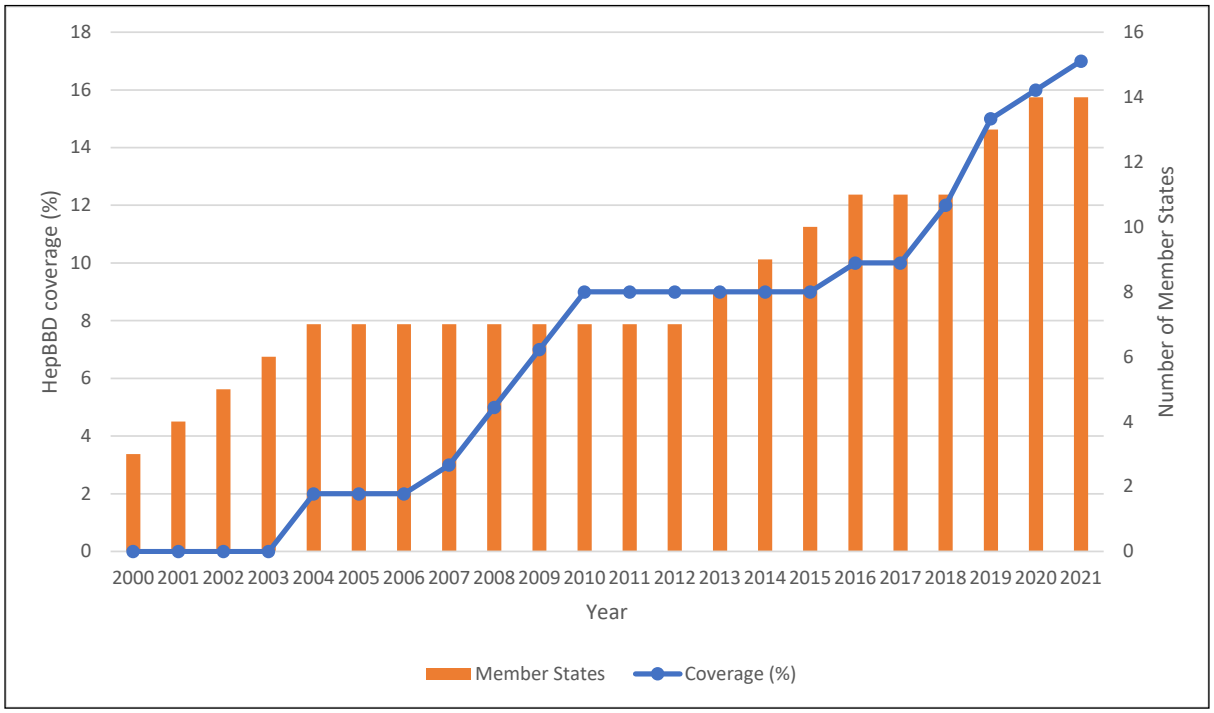
As part of targeted country support, WHO worked with national counterparts and partners in Burkina-Faso and Ethiopia to develop birth dose introduction plans and supporting post-introduction monitoring and supervision.

Figure 6. Number of Member States introducing the HepB3 vaccine and coverage levels, WHO African Region, 2000-2021



Source: WHO Immunization Data. In: World Health Organization [online database]. Geneva: World Health Organization; 2023 (https://immunizationdata.who.int/pages/coverage/HEPB.html?CODE=AFR&ANTIGEN=HEPB3&YEAR=, accessed 27 June 2023).

Figure 7. Number of Member States introducing the HepBBD vaccine and coverage levels, WHO African Region, 2000-2021



Source: WHO Immunization Data. In: World Health Organization [online database]. Geneva: World Health Organization; 2023 (https://immunizationdata.who.int/pages/coverage/HEPB.html?CODE=AFR&ANTIGEN=HEPB_BD&YEAR=, accessed 27 June 2023)

Challenges and priorities

Although substantial progress has been made to scale up universal childhood hepatitis B vaccination, regional coverage remains suboptimal. As of 2021, hepatitis B third dose vaccination coverage stood at 71%, 19% below the target, while only 17% coverage was achieved for the birth dose (within 24 hours of birth) – almost three times lower than the target.

Box 8 Strategic priorities for hepatitis B elimination		
Funding	**Data for decision making**	**Coordination**
WHO will continue to advocate with donors to support the introduction of the hepatitis B birth dose in routine schedules	Continued support for a variety of specialized and routine surveys to gather critical data	Establishment of a committee for the verification of hepatitis B elimination

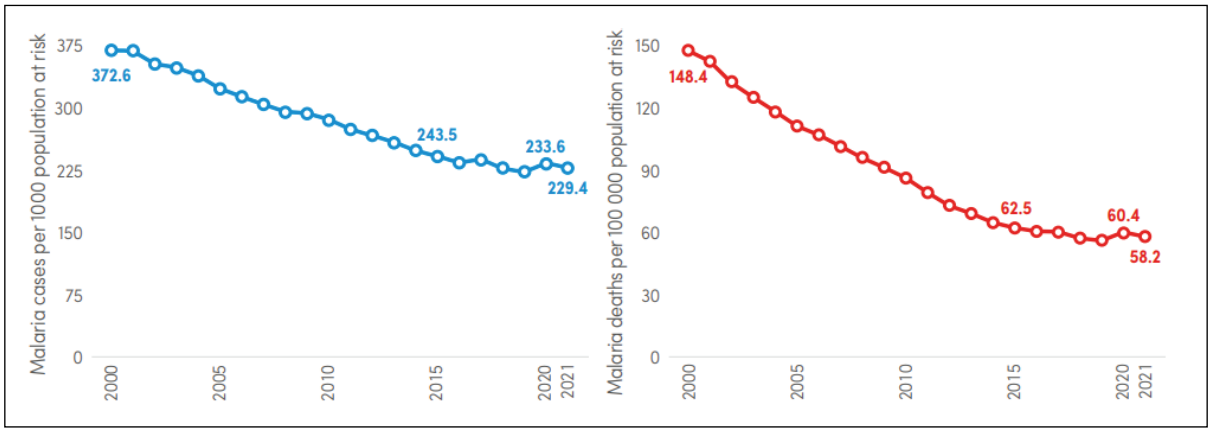
Malaria

Anopheles gambiae female during a blood meal
©Wikipedia

Malaria is a life-threatening disease spread by mosquitoes, which breed and thrive in tropical climates characterized by hot and humid environments. Symptoms can be mild or life-threatening and include fatigue, confusion, seizures, and difficulty breathing. Infants, children under five years, pregnant women, travellers, and people with HIV or AIDS are at higher risk of severe infection. While malaria is preventable and curable, it remains a major health and development crisis in the African Region.

According to the latest World malaria report, there were 247 million cases of malaria in 2021 and 619 000 deaths, comparable to figures from 2020. During the two 'peak' years of the pandemic (2020–2021), COVID-related disruptions led to an additional 13 million malaria cases and 63 000 malaria deaths. The African Region continues to carry a disproportionately high share of the global burden, with 44 malaria-endemic countries home to more than one billion people at risk of the disease (see Figure 8). In 2021, the region was home to an estimated 234 million cases and 593 000 deaths, representing 95% of global cases and 96% of global deaths. Children under five years of age continue to be the most vulnerable to the disease: accounting for as much at 80% of all malaria deaths in the region.

Figure 8. Trends in malaria case incidence (cases per 1000 population at risk) and malaria mortality rate (deaths per 100 000 population at risk), WHO African Region, 2000–2021



Source: World malaria report 2022. Geneva: World Health Organization; 2022 (ISBN: 978 92 4 006489 8, https://www.who.int/publications/i/item/9789240064898, accessed 16 June 2023)

Key achievements

Algeria was certified malaria free in 2019 and Cabo Verde has been malaria free since 2021, with certification in progress. Five countries, including Botswana, the Comoros, Eswatini, Sao Tome and Principe, and South Africa, have sufficiently low numbers of cases and deaths to be considered for elimination.[30] Although not on track to achieve elimination yet, another 15 countries (Burkina Faso, Cameroon, Equatorial Guinea, Eswatini, Guinea, Kenya, Malawi, Mali, Mozambique, Niger, Senegal, Sierra Leone, Togo, the United Republic of Tanzania, and Zambia) achieved reductions in malaria case incidence by 2021 compared with 2015.

The malaria vaccine was piloted in Ghana, Kenya, and Malawi in 2019 and has the potential to significantly improve elimination efforts.

Box 9 Key achievements in malaria elimination	
Vector control **176 million insecticide treated nets** (ITNs) distributed in sub-Saharan Africa in 2021 with **68% of households** having at least one ITN and **54% of the population** sleeping under an ITN	**Preventive chemotherapies** **15 countries** are implementing seasonal malaria chemoprevention in 2021 with **45 million children** under five years treated per cycle **35 countries** have adopted intermittent preventive treatment **Malaria vaccine implementation piloted** in Ghana, Kenya, and Malawi in 2019
Early diagnosis and treatment **2.1 billion rapid diagnostic tests** for malaria distributed in the region in 2021 and **234.7 million artemisinin-based combination therapies** distributed	**Malaria surveillance** **Four countries** supported to conduct assessments of their malaria surveillance systems in 2020/2021 WHO published a strategy to respond to **antimalarial drug resistance** in Africa

Challenges and priorities

Progress in malaria control in the region has stalled in the face of many challenges, including health and humanitarian emergencies (conflicts, flooding, famine), the COVID-19 pandemic, low coverage of malaria control interventions, declining global funding, and the emergence of insecticide and antimalarial resistance.

In addition, country-level challenges include inadequate political commitment and leadership, weak malaria programme management, insufficient prioritization and sustainability of interventions, inadequate domestic financing, weak surveillance systems (including a lack of well-functioning vital registration systems and shortage of human resources to carry out malaria activities), and frequent malaria outbreaks.

The stalling of progress makes it plain that the goals of 75% and 90% reductions by 2025 and 2030 will not be met, although the pilot projects on malaria vaccine may provide a course correction. Priorities include:

- Ensuring access to malaria prevention, diagnosis, and treatment as part of universal health coverage.
- Strengthening surveillance by collecting, analysing, and using necessary data for understanding disease trends and overall programme performance.
- Expanding the use of new tools (such as the malaria vaccine, new nets, and insecticides).
- Strengthening programme management capacity of National Malaria Programmes.
- Advocating for governments to increase resources for malaria control and build up resilient health systems to ensure that all planned interventions can reach the affected populations while ensuring the rational use of limited resources through the use of analytics to determine the most vulnerable.

Innovation update
The malaria vaccine: a gamechanger

The WHO African region carries a massive share of the global malaria burden: 95% of all malaria cases occur here. Over half (55%) of all malaria deaths worldwide occur in six countries from the region: Angola, Burkina Faso, the Democratic Republic of Congo, Mozambique, Nigeria, and Uganda. The World malaria report 2022 shows that progress in the fight against malaria is stagnating. Between 2020 and 2021, malaria cases continued to rise, with the global total of malaria cases reaching 247 million.

The tools available to fight against the disease are not perfect. The addition of new tools would greatly boost the fight against malaria, especially in moderate to high endemic areas. **Malaria vaccines present such an opportunity.**

A vaccine against malaria has been a research focus for many years, but in the last three to four years, this **hope has become a reality.** In 2019, pilot introductions of a malaria vaccine were begun as part of the Malaria Vaccine Implementation Programme (MVIP), coordinated by WHO. The MVIP coordinates and supports the phased introduction of the malaria vaccine (RTS,S) in selected areas of three African countries (Ghana, Kenya, and Malawi). In October 2021, the programme achieved a significant milestone when WHO issued a recommendation for the vaccine to be used for the prevention of *Plasmodium falciparum* malaria in children living in sub-Saharan Africa and in other regions with moderate to high transmission.

Following the recommendation, the three MVIP countries started planning to expand vaccine administration into areas that were not part of the initial rollout. By the end of 2022, **28 countries from the African Region** had expressed interest in introducing the vaccine. In addition, Gavi, the Vaccine Alliance, has approved an initial investment of US$ 155.7 million to expand vaccine implementation beyond the three MVIP countries during 2022–2025.

RTS,S is the first malaria vaccine to be prequalified by WHO. The vaccine is already registered in the three MVIP countries. The African Vaccine Regulatory Forum is supporting eligible non-MVIP countries to register the vaccine. A second vaccine candidate (R12/ Matrix M) is currently in phase 3 clinical trials.

The implementation of RTS,S in the three MVIP countries has made huge strides. At the end of December 2022, **more than 3.5 million doses had been administered across Ghana, Kenya, and Malawi and more than 1.16 million children were reached with at least one dose.** Approximately 360 000 children have completed the four-dose schedule and are fully vaccinated.

Malaria vaccination pilot project launched in Malawi. Credit WHO/M. Nieuwenhof

The vaccine primarily works to reduce malaria-related mortality, rather than transmission of the disease. More than three years after the launch of pilot implementations, a great deal has been learned about how to overcome the challenges around the dosing schedule and gain community acceptance. The evidence also confirms that **the vaccine is safe and lifesaving,** which holds out hope for progress in reducing the incidence of malaria significantly.

The MVIP is a truly collaborative programme. Implemented by the Ministries of Health of Ghana, Malawi, and Kenya, it is funded by Gavi, the Vaccine Alliance, the Global Fund for Malaria, AIDS and Tuberculosis, and UNITAD. WHO mainly plays a coordination and leadership role with technical support to the implementing Ministries of Health.

The main challenge regarding the implementation of RTS,S vaccine is limited supply due to low manufacturing capacity, however there are **opportunities for increasing the supply.** A high level of political will exists for the local manufacturing of vaccines and pharmaceuticals in Africa. Local manufacturing, once realized, would enable the local production of a range of vaccines, providing a significant advantage in disease management for the region. Until local manufacturing becomes a reality, WHO, Gavi, the Vaccine Alliance, UNICEF, and partners will continue to work on ensuring the supply of RTS,S malaria vaccine through a range of strategies and initiatives, for instance by enabling technology transfer from outside the region to increase manufacturing capacity – this will take effect from early 2026.

Maternal and neonatal tetanus

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Claiming thousands of lives every year, maternal and neonatal tetanus is a devastating disease caused by toxins released from *Clostridium tetani* bacteria. It is one of the most common life-threatening consequences of unhygienic deliveries and umbilical cord care practices. Maternal and neonatal tetanus is an indicator of inequity in access to immunization and other maternal, newborn, and child health services. Without appropriate medical care, mortality from neonatal tetanus is close to 100%.

Maternal and neonatal tetanus continue to be an important cause of neonatal mortality in the African Region, with an 80–100% case-fatality rate among neonates. With no cure, maternal and neonatal tetanus is responsible for an average of 110 000 deaths each year in the region.[31]

Key achievements

Despite competing priorities in a challenging time, significant progress has been made in the African Region towards the elimination of maternal and neonatal tetanus. As of December 2022, 42 countries in the region have validated elimination, up from 30 in 2013. The remaining six countries (Angola, Central African Republic, Guinea, Mali, Nigeria, and South Sudan) are making progress towards elimination and are likely to achieve it in the next few years,[32] with the validation of the south-south geopolitical zone and pre-validation of the north-central geopolitical zone in Nigeria. Progress is also ongoing for the validation of Guinea and the northern region of Mali.

The proportion of newborns protected at birth against tetanus, due to maternal immunization, has held steady at 80% or above during the last five years.

Challenges and priorities

Several factors are attributed to the persistent number of cases of neonatal tetanus in the region, including:

- under-immunization with low or no coverage rates,
- lack of awareness and underutilization of antenatal care services,
- cultural beliefs and birth rituals, and
- lack of government commitment to neonatal tetanus elimination.

Box 10 Priorities for maternal and neonatal tetanus elimination		
Pre-validation or validation surveys in the six countries yet to achieve elimination	Supporting countries that have achieved elimination to develop and implement sustainability plans	Advocating for the introduction of tetanus booster doses in routine immunization schedules

Measles and rubella

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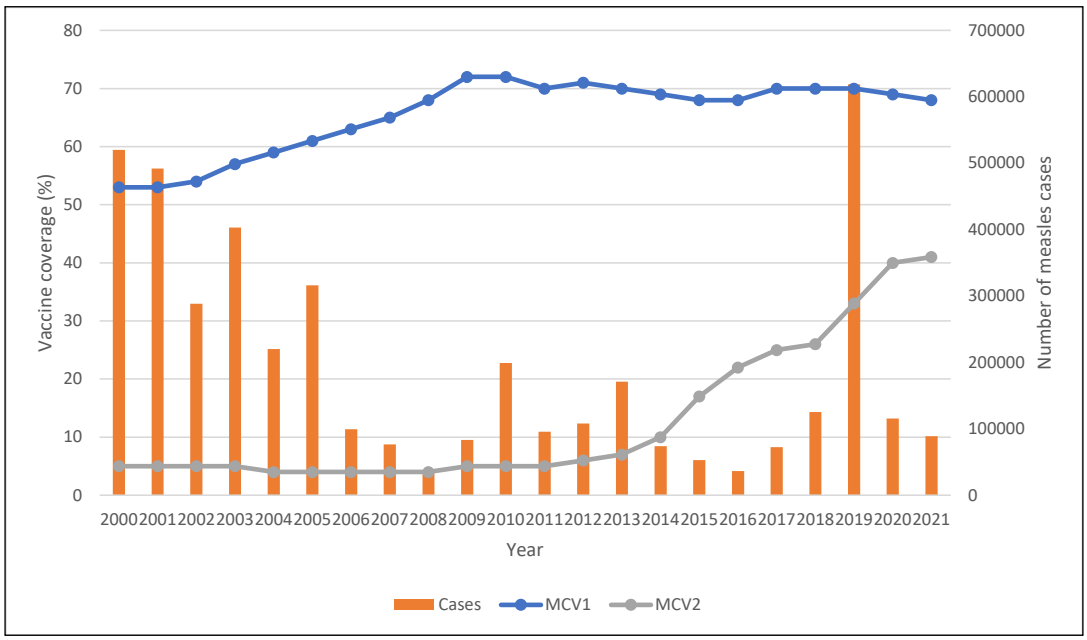
Measles is one of the world's most contagious diseases. It weakens the immune system and increases the risk of secondary health problems, including pneumonia, blindness, and diarrhoea. These debilitating effects are most common in children under five, with malnourished children more likely to suffer from severe complications. Even if a child recovers, they can be left with permanent disabilities.

The disease remains one of the leading causes of death among young children globally, and the overwhelming majority (more than 95%) of measles deaths occur in countries with low per capita incomes and weak health infrastructures. Measles outbreaks can be particularly deadly in countries experiencing or recovering from a natural disaster or conflict – common in the African Region, which faces the highest burden of public health emergencies globally.

In the region, the yearly number of confirmed measles cases was consistently low for several years until 2019, when more than 600 000 cases were reported – four times higher than previous years. The increase in cases was associated with outbreaks in Angola, Cameroon, Chad, Democratic Republic of Congo, Madagascar, Nigeria, and South Sudan (see Figure 9).

Figure 9. Reported measles cases and vaccination coverage, WHO African Region, 2000-2021



Source: WHO Immunization Data. In: World Health Organization [online database]. Geneva: World Health Organization; 2023 (https://immunizationdata.who.int/, accessed 27 June 2023)

Rubella is generally a mild disease but can have serious consequences for pregnant women and their children. If infected with rubella in the first trimester, women have a very high risk of giving birth to a child with Congenital Rubella Syndrome. This syndrome often results in children born with multiple birth defects including heart problems, deafness, and blindness. More than 100 000 children are born with Congenital Rubella Syndrome each year. The lifelong complications and disabilities can have an immeasurable emotional, social, and financial cost for families.

Like measles, rubella can be prevented with a safe, effective, and inexpensive vaccine. This can be delivered as a rubella vaccine alone, combined with measles vaccine, or with measles and mumps vaccines.

Key achievements

Even though no country in the African Region has yet been verified for measles elimination, Botswana, Eritrea, Ghana, Mauritius, Rwanda, and Seychelles have made sustained progress and will most likely achieve verification in the next 3–5 years. Other countries with very good progress but with some programme gaps or recent outbreaks include Senegal, Tanzania, Zambia, and Zimbabwe (see Box 11).

Box 11 Key achievements in measles and rubella elimination

Routine immunization with high coverage	Strong surveillance systems	Rapid outbreak response
Measles vaccination coverage in 2021 (first dose): 68%	Case-based surveillance systems established in all 47 Member States	Technical support and in-country deployments
Rubella vaccination coverage in 2021: 35%	Supported by 54 national and subnational laboratories and three Regional Reference laboratories	Application of WHO risk assessment tool in nine high-risk countries
Supplementary immunization activities reached 22.4 million children in 2022		Catalytic funding to support capacity building and development of outbreak strategic response plans

Innovation update
Microarray patches for vaccine delivery

WHO, in collaboration with UNICEF and partners, is driving the development of microarray patches for vaccine delivery. Vaccine microarray patches are single-dose, easy and painless to administer, and small in size – simplifying storage, transportation, and waste disposal.

Progress toward measles and rubella elimination has stagnated as countries struggle to reach the required 95% vaccine coverage. Microarray patches are anticipated to offer significant programmatic advantages compared to needle and syringe delivery and increase vaccination coverage.

A microarray patch consists of hundreds to thousands of tiny projections that deliver vaccine just below the skin surface. Microarray patches for measles and rubella are anticipated to be easier to administer than needle and syringe and be less burdensome on vaccinators and the immunization system, given they are ready to administer, come as a single dose presentation, and have reduced weight. Further, the needleless presentation could address some vaccine hesitancy due to an increasing number of painful injections administered during an immunization session.

A vaccine patch from Micron Biomedical. Credit: Micron Biomedical

Challenges and priorities

As of the end of 2022, the risk for measles outbreaks is high in many countries in the region due to chronic gaps in routine immunization coverage, delays in the implementation of periodic supplementary immunization activities, gaps in surveillance performance, and several competing public health priorities, including disease outbreaks and civil and armed conflict. Countries with the highest risks, with the highest likelihood of large and multiple outbreaks in 2023 include Angola, Chad, Democratic Republic of Congo, Liberia, Malawi, Mozambique, South Africa, South Sudan, and Tanzania.
Priorities for 2023 include:

- Supporting countries to strengthen their routine immunization programmes and raise their measles vaccine coverage levels.
- Working with partners to advocate for and provide technical support to countries to shift from 10-dose to 5-dose vials for measles and rubella vaccines and monitor the impact of this shift.
- Supporting countries to implement high quality periodic preventive campaigns in Cameroon, Central African Republic, Chad, Democratic Republic of the Congo, Liberia, Malawi, Mozambique, South Africa, and South Sudan.
- Strengthening outbreak preparedness and response to measles outbreaks in the most vulnerable countries as part of the measles outbreak response strategic plan.
- Supporting high-performing countries to document their progress towards measles and rubella elimination through their respective national verification committees, and present to the African Regional Verification Commission.
- Working with Gavi, the Vaccine Alliance, and other partners to launch a pilot project using measles rapid diagnostic tests for field surveillance activities in selected countries.

Meningitis

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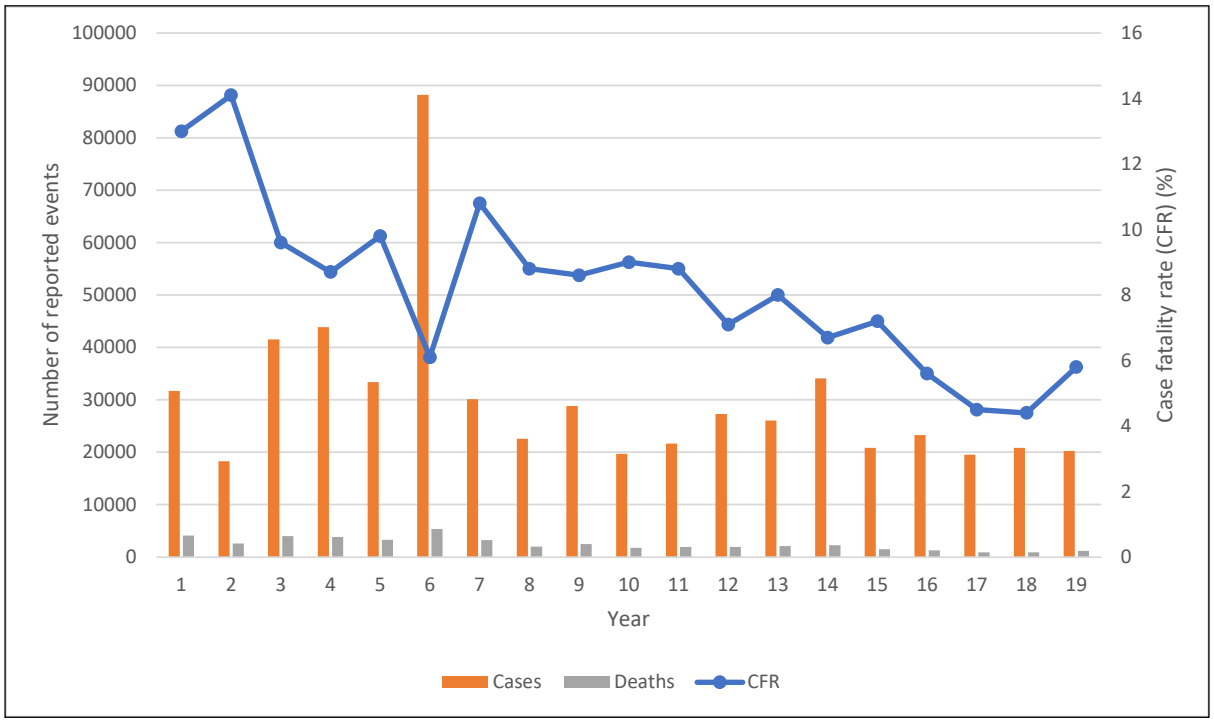
Despite significant progress over the last few decades, meningitis remains a major public health challenge worldwide, with a high case fatality rate and tendency to cause large epidemics. Meningitis caused an estimated 250 000 deaths in 2019,[33] leaving one in five affected individuals with lifelong disabilities. Meningitis is a largely preventable disease through vaccination, but progress is lagging when compared to other vaccine preventable diseases.

The disease can be caused by many different pathogens including bacteria, fungi, or viruses, but the highest global burden is seen with bacterial meningitis. Several different bacteria can cause meningitis. *Neisseria meningitidis (N. meningitidis)*, which causes meningococcal meningitis, has the potential to produce large epidemics.

Meningococcal meningitis can affect anyone of any age; however, babies, preschool children and young children carry the highest burden, with almost half of all cases and deaths occurring in children under five years of age. The disease can occur in a range of situations from sporadic cases and small clusters to large epidemics throughout the world. The largest burden of meningococcal meningitis occurs in the meningitis belt, an area of sub-Saharan Africa that stretches from Senegal in the west to Ethiopia in the east.

Globally, apart from epidemics, at least 1.2 million cases of bacterial meningitis and 135 000 deaths are estimated to occur every year. Despite the significant progress that has been made in reducing the incidence of meningitis over the past 20 years, an average of 24 000 suspected cases and 1800 deaths are reported each year in the African Region (see Figure 10).[34]

Figure 10. Annual number of reported meningitis cases and deaths, WHO African Region, 2004–2022



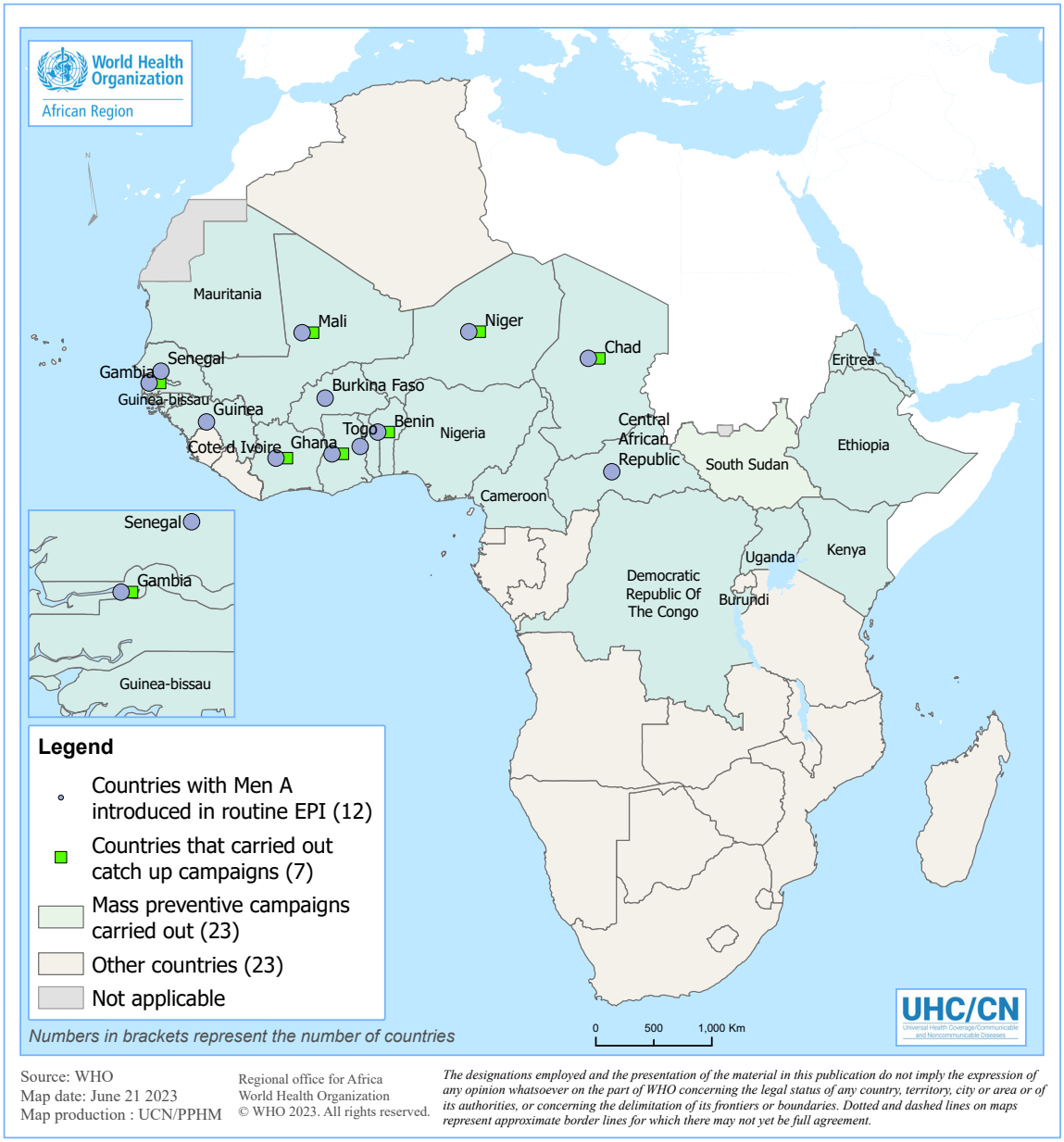
Source: WHO meningitis bulletins. In: MenAfriNet [website]. CDC Foundation; 2023 (https://www.menafrinet.org/who-meningitis-bulletins, accessed 7 July 2023).

Pneumococcal meningitis has been associated with several meningitis outbreaks and has been causing an increasing proportion of meningitis cases in the belt. While Pneumococcal meningitis is generally an endemic disease, it has the potential to cause large community outbreaks. Pneumococcal outbreaks have been reported in communities in Africa within the meningitis belt and in areas neighbouring the region. Between 2000 and 2018, 10 outbreaks of Pneumococcal meningitis were reported in Africa.[35]

Key achievements

Between 2010 and 2019, 24 of the 26 countries in the meningitis belt conducted immunization campaigns either nationwide or in high-risk areas resulting in the near elimination of group A meningococcal meningitis in the region. To date, 14 countries have introduced the meningitis vaccine into their routine immunization programmes, including Benin and Guinea Bissau, which introduced it in 2022 (see Figure 11). In 2021, routine vaccination coverage in these 14 countries region was 74%. In 2022, Benin, Guinea, and Nigeria conducted catch-up immunization campaigns for 14 million children aged 1–10 years, with Guinea achieving almost 95% coverage.

Figure 11. Status of meningococcal A conjugate vaccine (menACV) rollout in the meningitis belt, WHO African Region, 2010–2023



Challenges and priorities

Priorities as part of meningitis elimination are clear and practical:

- Organize the second workshop on the development of national strategic plans to defeat meningitis by 2030 with 15 countries at high and medium risk of meningitis.
- Provide technical and financial support to the first 13 countries enrolled in the development of their national strategic plans to enable them to finalize the plans and conduct official launches at country level.
- Organize the twentieth virtual meningitis annual meeting combined with the tenth MenAfriNet partners meeting in November 2023.
- Provide technical support and guidance to countries introducing meningitis vaccines through mass vaccination campaigns and the routine immunization programme schedule.

Yellow fever

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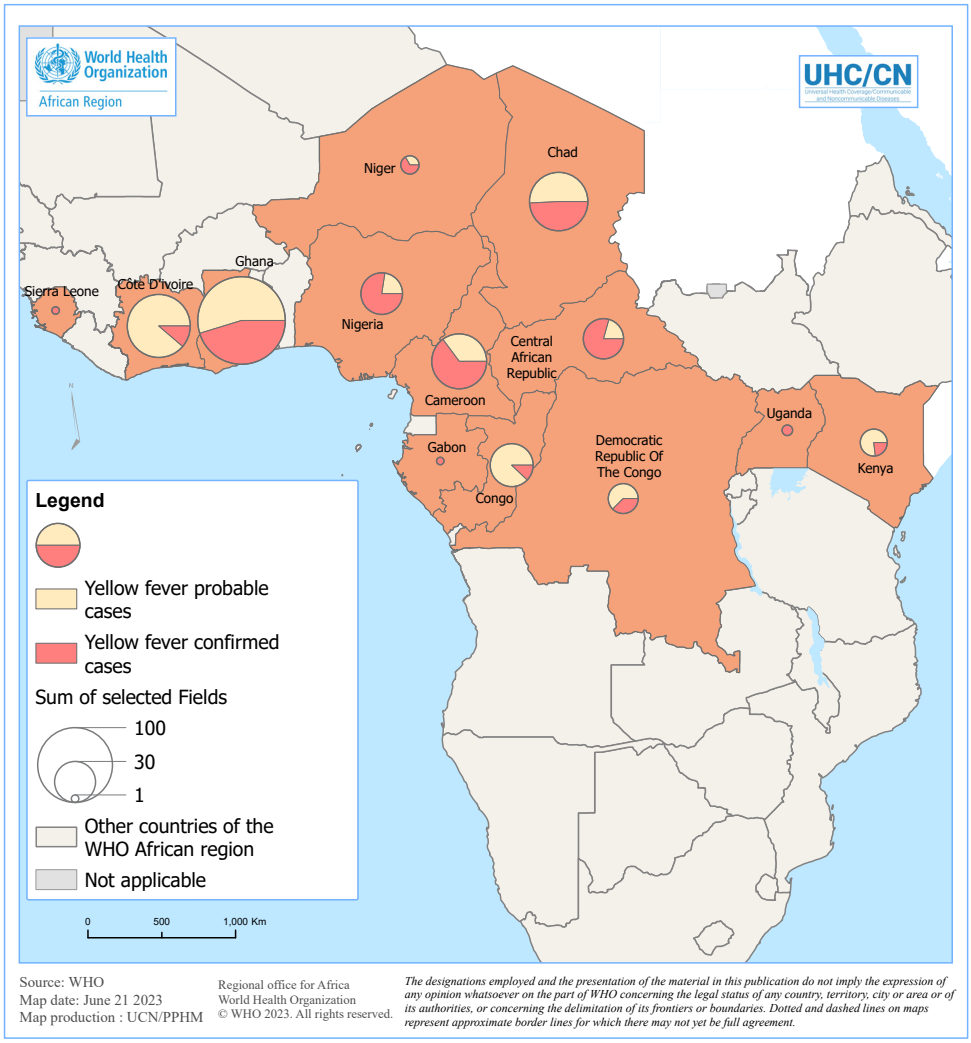
Yellow fever is a mosquito-borne disease caused by a virus found in tropical and subtropical areas of South America and Africa. Large epidemics of yellow fever occur when people (often travellers) introduce the virus into heavily populated areas with high mosquito density and where most people have little or no immunity due to lack of vaccination. In these conditions, infected mosquitoes transmit the virus from person to person. While most individuals affected by yellow fever experience mild symptoms, a small number enter a second, more toxic phase – half of those who enter this phase die within 7–10 days.

In 2018, an estimated 109 000 severe infections and 51 000 deaths due to yellow fever occurred in Africa and South America: with 92% of the disease burden occurring in Africa.[36] Between 1 January 2021 and 7 December 2022, a total of 203 confirmed and 252 probable cases with 40 deaths were reported to WHO from 13 countries in the WHO African Region (Cameroon, Central African Republic, Chad, Congo, the Democratic Republic of Congo, Gabon, Ghana, Kenya, Niger, Nigeria, Sierra Leone, and Uganda). These included sporadic cases and cases associated with outbreaks (see Figure 12).

Figure 12. Distribution of reported probable and confirmed yellow fever cases, WHO African Region, 1 January 2021 – 7 December 2022



Source: WHO
Map date: June 21 2023
Map production : UCN/PPHM

Regional office for Africa
World Health Organization

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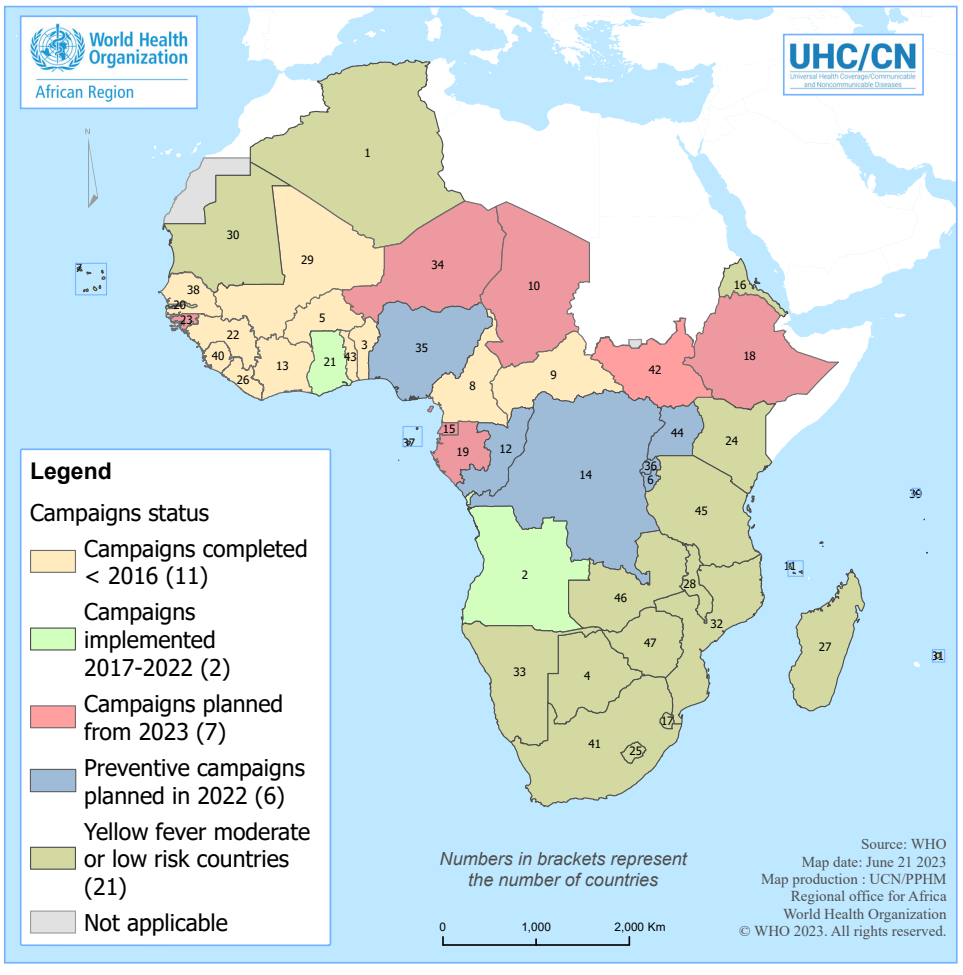
Key achievements

Immunization

By the end of 2022, all yellow fever high-risk countries in the African Region, except for Ethiopia and South Sudan, had introduced routine yellow fever vaccination at the national level.[37] Most priority countries have conducted a preventive mass vaccination campaign against yellow fever or are in the process (see Figure 13). Chad prepared an application to be submitted in 2023.

Figure 13. Implementation of preventive mass vaccination campaigns, WHO African Region



Country
1. Algeria
2. Angola
3. Benin
4. Botswana
5. Burkina Faso
6. Burundi
7. Cabo Verde
8. Cameroon
9. Central African Republic
10. Chad
11. Comoros
12. Congo
13. Côte D'Ivoire
14. Democra c Republic Of The Congo
15. Equatorial Guinea
16. Eritrea
17. Eswa ni
18. Ethiopia
19. Gabon
20. Gambia
21. Ghana
22. Guinea
23. Guinea-Bissau
24. Kenya
25. Lesotho
26. Liberia
27. Madagascar
28. Malawi
29. Mali
30. Mauritania
31. Mauri us
32. Mozambique
33. Namibia
34. Niger
35. Nigeria
36. Rwanda
37. Sao Tome And Principe
38. Senegal
39. Seychelles
40. Sierra Leone
41. South Africa
42. South Sudan
43. Togo
44. Uganda
45. United Republic Of Tanzania
46. Zambia
47. Zimbabwe

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In 2021, estimated routine childhood immunization coverage against yellow fever in the African Region was 48%, much lower than the 80% threshold required to confer population immunity. Country-specific estimates of vaccination coverage ranged from as low as 7% in Kenya, to 85% in Sierra Leone.[38]

As of 31 December 2022, about 174 million people have been protected from yellow fever through mass vaccination since the inception of the Eliminate Yellow Fever Epidemics (EYE) Strategy in 2017. In addition, more than 4 million people were vaccinated during reactive vaccination campaigns conducted in five countries (Cameroon, Central African Republic, Chad, Ghana, and Kenya) during 2021 and 2022 as part of outbreak response.

Surveillance

Yellow fever surveillance is part of integrated disease surveillance and response-guided epidemic-prone disease surveillance and vaccine preventable disease surveillance systems. While case-based surveillance is recommended for high-risk countries, as of December 2022, five of the 27 high-risk countries (Ethiopia, Gambia, Guinea Bissau, Kenya, and Uganda) had not yet introduced case-based surveillance.

To date, the region has three accredited yellow fever regional reference laboratories with fully functional confirmation capacity (Pasteur Institute of Dakar, Senegal; Centre Pasteur du Cameroun, Cameroon; Uganda Virus Research Institute, Uganda). The National Reference Laboratory in Abuja, Nigeria has been accredited for serological and molecular diagnostics.

Challenges and priorities

There are some persistent challenges standing in the way of achieving the elimination of yellow fever:

- Diversion of attention and resources to the COVID-19 vaccine rollout, with national and international immunization teams at all levels heavily engaged in this.
- The decline in vaccination coverage and vaccine preventable disease surveillance, which were further compounded by the pandemic.
- Postponement of yellow fever vaccine introduction plans and delays in scheduled campaigns.
- Delays in decision-making processes in some countries for the introduction of yellow fever as part of routine immunization schedules (for example, in Ethiopia where outbreaks are reported almost every year).

Noncommunicable diseases

Noma

Noma is a rapidly accelerating disease that destroys the soft tissues and bones of the mouth and face. It is estimated to be fatal for 90% of those affected.[39] When detected early, it can be treated through basic hygiene practices and with antibiotics. Such early detection helps to prevent suffering, disability, and death.

Noma mostly affects young children suffering from malnutrition, living in extreme poverty and with weakened immune systems. It is widespread in an area of sub-Saharan Africa stretching from Mauritania to Ethiopia – the so-called 'noma belt'.[40]

Key achievements

At the global level, in 2022, WHO hosted the first ever stakeholders meeting on noma to inform key stakeholders about the preparation and submission process to formally include noma on the WHO list of NTDs. As part of its role in supporting the global research agenda, a commentary on noma was published, calling for more attention to what has been an 'invisible' disease affecting highly vulnerable children. A systematic review on associated risk factors, prevention, and treatments for noma was also initiated in 2022 in partnership with the University of Oxford.

Regionally, an online training course for primary care workers was launched as part of the Skin-NTDs course with OpenWHO in 2022. The course is offered in all official languages of the African Region and, as of February 2023, more than 3200 people have registered for the course.

As part of the Regional Noma Control Programme, WHO has supported 10 priority countries to develop, implement and monitor progress on their national noma action plans. The monitoring template of the programme was updated with new reporting tools for countries in 2022. In addition, WHO supported Ethiopia and Mozambique to conduct rapid assessments of the noma situation in 2022. Social media campaigns were also implemented in 2022, including the development of a noma survivor's short video and a case story from Nigeria.

Box 13 Country highlights in noma elimination

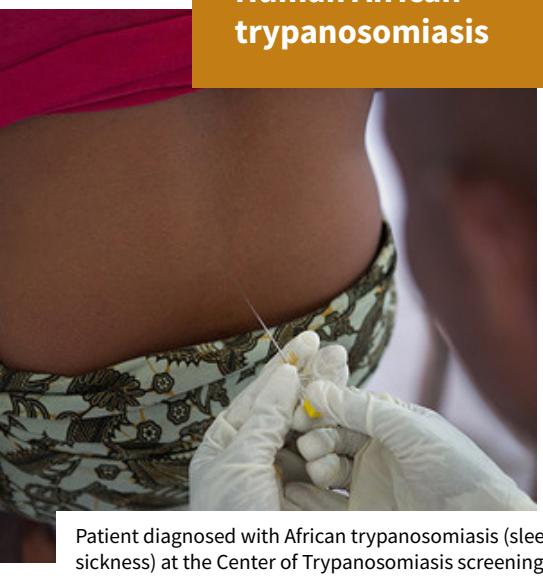
- Benin, Guinea Bissau, Niger, Senegal, and Togo updated their national noma action plans. Mali is engaged in an ongoing process to update its action plan.
- Approximately 2300 primary care workers were trained in Benin, Cote d'Ivoire, Democratic Republic of Congo, Guinea Bissau, Niger, Nigeria, Senegal, and Togo.
- Burkina Faso, Benin, Niger, and Senegal developed communication plans and materials to facilitate social mobilization.
- Eight countries, excluding Mali and the Democratic Republic of Congo, have integrated noma into their existing surveillance systems. The Democratic Republic of Congo is in an ongoing process of integrating noma into their district health information management system.
- Patient referrals were enhanced between Benin and Niger, as an example of cooperation between countries.

Challenges and priorities

Challenges include political instabilities and security issues; insufficient human and financial resources; and ongoing disruptions caused by the COVID-19 pandemic. In addition, there is poor surveillance for noma as well as weak collaboration between and among different sectors. Administrative issues, including delays in the release of funds to ministries of health, are obstacles.

Case management neglected tropical diseases (CM-NTDs)

Human African trypanosomiasis

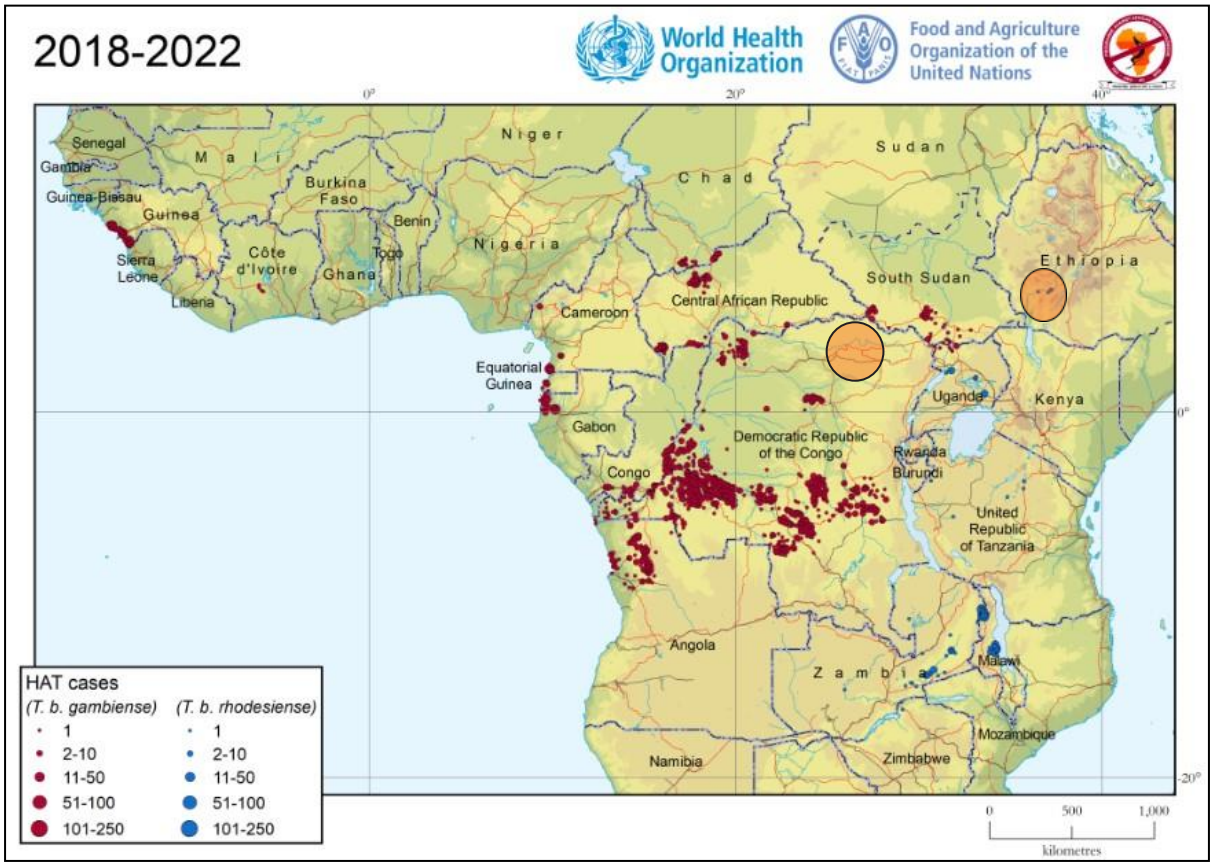


Patient diagnosed with African trypanosomiasis (sleeping sickness) at the Center of Trypanosomiasis screening, prevention and control, Malouka Hospital. © WHO AFRO

Human African trypanosomiasis (HAT), or sleeping sickness, is a life-threatening disease found only in sub-Saharan Africa. The disease mainly threatens populations in remote rural areas with limited health services, which complicates its diagnosis and treatment. These populations are also affected by war, displacement and poverty, factors favouring transmission. Diagnosis and treatment are complex and require specific skills – without treatment, the disease is usually fatal.

HAT takes two forms, depending on the subspecies of the infecting parasite: *Trypanosoma brucei gambiense,* which is found in West and Central Africa and causes 92% of reported cases, and *Trypanosoma brucei rhodesiense,* which is found in East Africa. The disease is endemic in 36 countries in the African Region (see Figure 14).

Figure 14. Map of distribution of human African trypanosomiasis cases, WHO African Region, 2018–2022

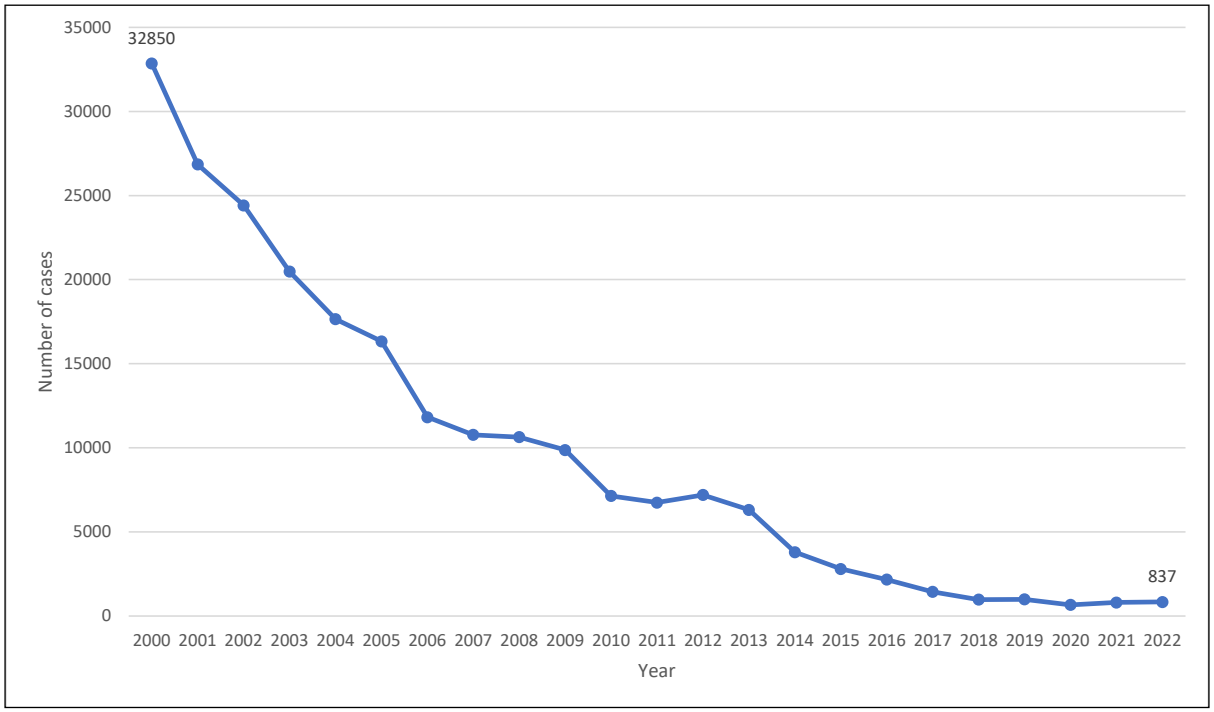


Source: WHO Regional Office for Africa Programme Data (as of January 2023)

The number of HAT cases reported annually in the region declined by 98% between 2000 and 2022 – from 32 850 to 837 cases (see Figure 15). The annual reported number of cases has remained less than 1000 over the past five years. Incidence strongly differs by country and by region. Taking the last five years into account:[41]

- The Democratic Republic of Congo reported 61% of new cases.
- Angola, Central African Republic, Chad, Congo, Gabon, Guinea, Malawi, and South Sudan reported between 10–100 cases, while Cameroon, Côte d'Ivoire, Equatorial Guinea, Ethiopia, Tanzania, Uganda, and Zambia reported between 1–10 cases.
- Burkina Faso, Ghana, Kenya, Nigeria, and Zimbabwe reported sporadic cases.
- Benin, Botswana, Burundi, Eswatini, Gambia, Guinea Bissau, Liberia, Mali, Mozambique, Namibia, Niger, Rwanda, Senegal, Sierra Leone, and Togo have not reported cases for over a decade.

Figure 15. Annual number of new human African trypanosomiasis cases, WHO African Region, 2000–2022



Source: Fifth WHO stakeholders meeting on human African trypanosomiasis elimination. 7 – 9 June 2023, World Health Organization, Geneva, Switzerland.

Key achievements

As of 2023, *T. b. gambiense* HAT has been eliminated as a public health problem in seven countries (Benin, Chad, Côte d'Ivoire, Equatorial Guinea, Ghana, Togo, and Uganda).[42] Five other countries (Burkina Faso, Cameroon, Guinea, Mali, and Senegal) are eligible for validation and are preparing their applications, while several others have eliminated the disease but have weak surveillance systems that delay validation. Elimination of *T. b. rhodesiense* HAT as a public health problem has been validated in two countries (Kenya and Rwanda).[43] Other recent achievements include:

- Prospects for further progress on HAT elimination have been improved with the development of an easily accessible, oral treatment (fexinidazole), which was developed by the Drugs for Neglected Diseases initiative in collaboration with partners, including WHO.
- The development of new treatment guidelines and associated training materials, along with treatment supplies for detected cases and active monitoring of the safety of fexinidazole was implemented in 11 countries (Angola, Cameroon, Central African Republic, Chad, Congo, Democratic Republic of Congo, Equatorial Guinea, Gabon, Guinea, South Sudan, and Uganda).
- Sentinel surveillance for HAT is ongoing in 19 countries.
- Notable advances have occurred in the development of rapid and multiplex diagnostic tests for HAT.

Challenges and priorities

HAT remains a public health problem in eight countries that have not met elimination criteria (Angola, Central African Republic, Congo, the Democratic Republic of Congo, Gabon, Guinea, Malawi, and South Sudan). Emerging challenges for HAT elimination include insufficient funding for interventions (approximately, a minimum of US$ 2 million is needed each year for direct country interventions and additional funds for research and innovation), socio-political conflicts and insecurity preventing delivery of services, and maintaining post-elimination surveillance and re-emergence of disease transmission.

Success story
Togo becomes first country to eliminate four neglected tropical diseases

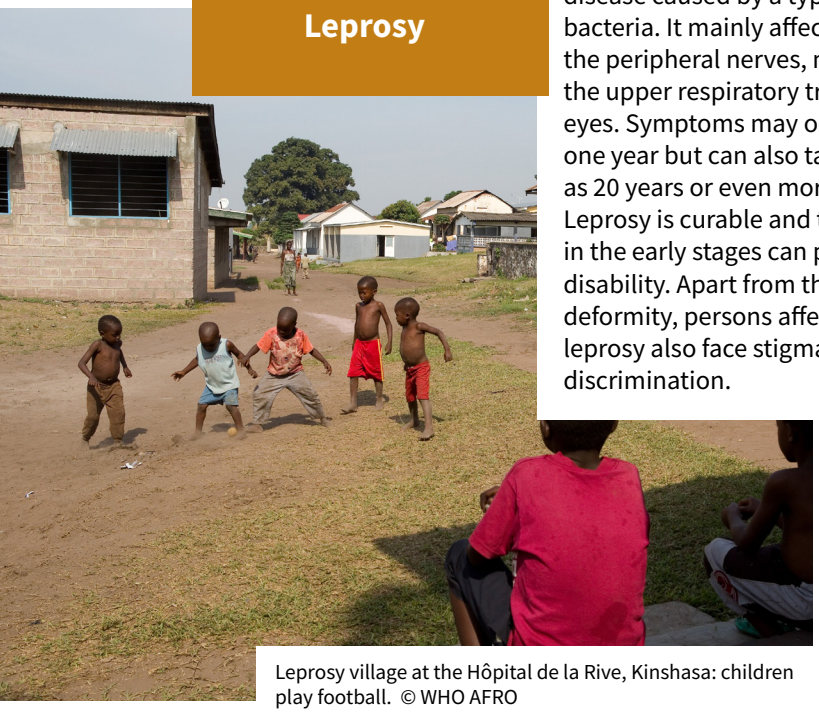
With the help of community health workers, Togo has become the first country to eliminate four neglected tropical diseases (NTDs) – Guinea worm in 2011, lymphatic filariasis in 2017, human African trypanosomiasis in 2020, and trachoma in 2022. The elimination of human African trypanosomiasis, also referred to as sleeping sickness, coincided with the height of the COVID-19 pandemic, making Togo's elimination of the deadly disease even more noteworthy.

Togo achieved its success through a concerted effort that focused on mass drug administration by community health workers (CHWs) in villages; building awareness about NTDs and treatment options through village criers, tribal chiefs, and religious leaders; training health workers to screen for, treat, and collect data on NTDs; and ensuring a resilient supply chain to ensure CHWs had access to diagnostic tools and treatments.

With a population of 8 million people and only 400 doctors, the use of CHWs was critical. To deliver basic health care in rural areas underserved by doctors, the government, working with WHO and other partners, built a robust network of over 13 000 CHWs. With its policy of integrated community-based interventions, the same CHWs responsible for NTDs are also used to diagnose and manage malaria, pneumonia, diarrhoea, and provide vitamin A supplementation, among other duties. This integration makes it possible to optimise treatment and avoids multiple contacts with the same person for different diseases.

Promising progress on neglected tropical diseases in Africa. © WHO AFRO

Leprosy



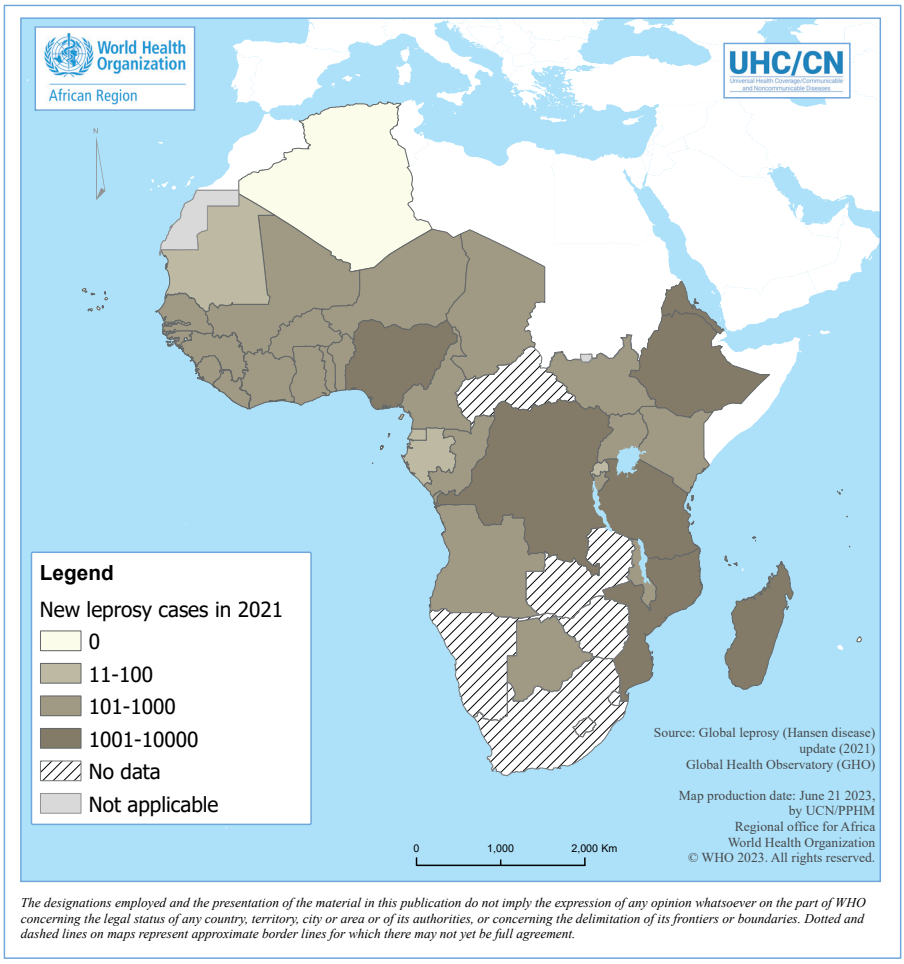
Leprosy village at the Hôpital de la Rive, Kinshasa: children play football. © WHO AFRO

Leprosy is a chronic infectious disease caused by a type of bacteria. It mainly affects the skin, the peripheral nerves, mucosa of the upper respiratory tract, and the eyes. Symptoms may occur within one year but can also take as long as 20 years or even more to emerge. Leprosy is curable and treatment in the early stages can prevent disability. Apart from the physical deformity, persons affected by leprosy also face stigmatization and discrimination.

Early detection of cases and timely administration of multidrug therapy are the basic tenets of leprosy elimination. Since the introduction of multidrug therapy, the number of cases of leprosy have decreased substantially, from more than 5 million cases in the 1980s to just over 140 500 cases in 2021.[44] However, the disease still occurs in more than 120 countries, with more than 200 000 new cases reported every year (see Figure 16). In 2021, over 21 000 new cases (15% of the global burden) were reported from ten countries in the African Region (Angola, Comoros, Côte d'Ivoire, Democratic Republic of Congo, Ethiopia, Madagascar, Mozambique, Nigeria, South Sudan, and Tanzania).

Figure 16. Geographical distribution of new leprosy cases, 2021

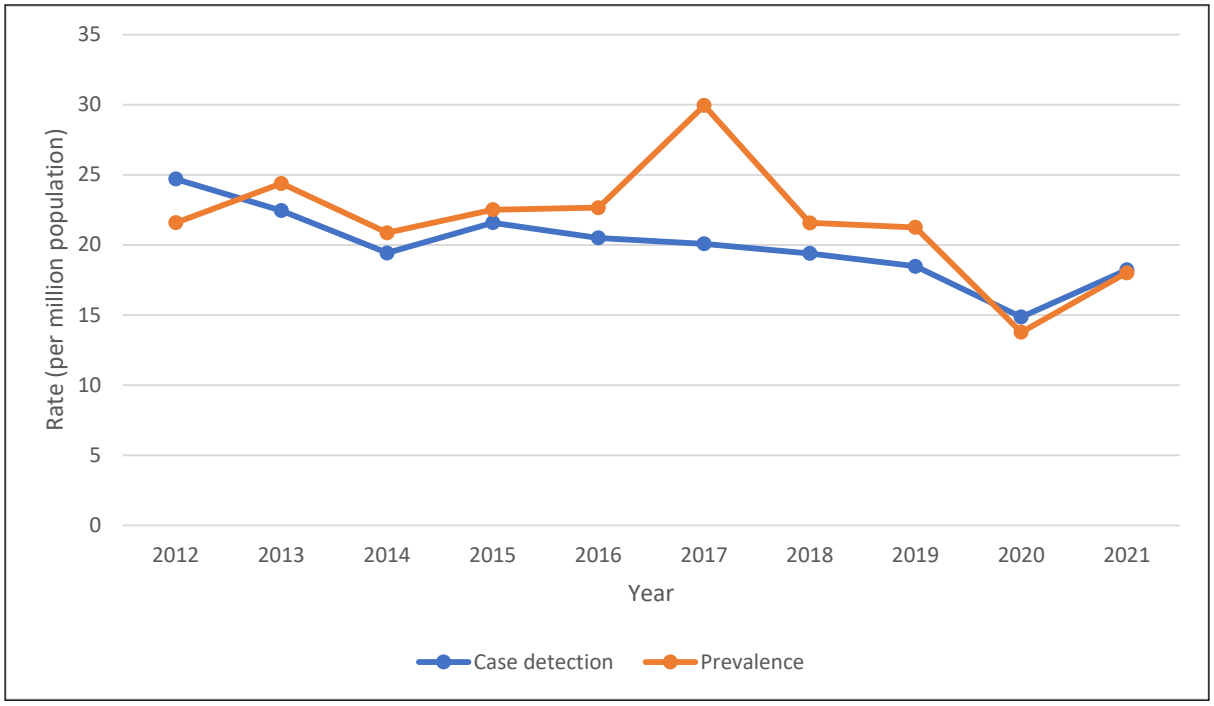
Source: World Health Organization. Global leprosy (Hansen disease) update, 2021: Moving towards interruption of transmission. Weekly epidemiological record. 2022; 97(No. 36):429–450 (https://www.who.int/publications/i/item/who-wer9736-429-450, accessed 8 June 2023).



Key achievements

The leprosy case detection rate (number of new cases reported) decreased from 24.7 cases per million inhabitants in 2012, to 18.2 per million inhabitants in 2021. Leprosy prevalence also decreased from 21.6 to 18.0 cases per million inhabitants during the same period (see Figure 17). Eight out 47 Member States reported no new local cases of leprosy among children for at least five years, which means they are close to achieving interruption of transmission of *Mycobacterium leprae* (the bacterium causing leprosy).

Figure 17. Annual leprosy case detection and prevalence rates (per million population), WHO African Region, 2012–2021



Source: WHO Global Leprosy Programme Data (as of January 2023)

Leprosy control activities have been integrated across several programmes, including NTDs and tuberculosis, along with primary health care interventions. At the country level, WHO is supporting implementation of new treatment guidelines, a digital application for reporting annual leprosy statistics (which has been integrated with local health information management software), and sentinel surveillance of antimicrobial resistance.

Challenges and priorities

Obstacles to leprosy control continue to occur in areas where there are highly endemic pockets of disease, which are experiencing dwindling expertise and capacity for leprosy diagnosis at peripheral levels and a lack of point-of-care diagnostic tests.

In response, integrated surveillance and contact tracing, along with expanding capacity for case-finding will be strengthened. WHO is supporting countries to map endemic communities, scale up prevention and case management by mobilizing more resources for disease programmes, and strengthening health systems, including community engagement.

While the long duration of treatment (6 and 12 months) remains a major obstacle, WHO will continue to facilitate the provision of multidrug therapy worldwide, provided free of charge to leprosy patients. WHO will also continue to focus on ensuring medicines supply, including access to multidrug therapy, second-line treatments, and medicines to treat reactions.

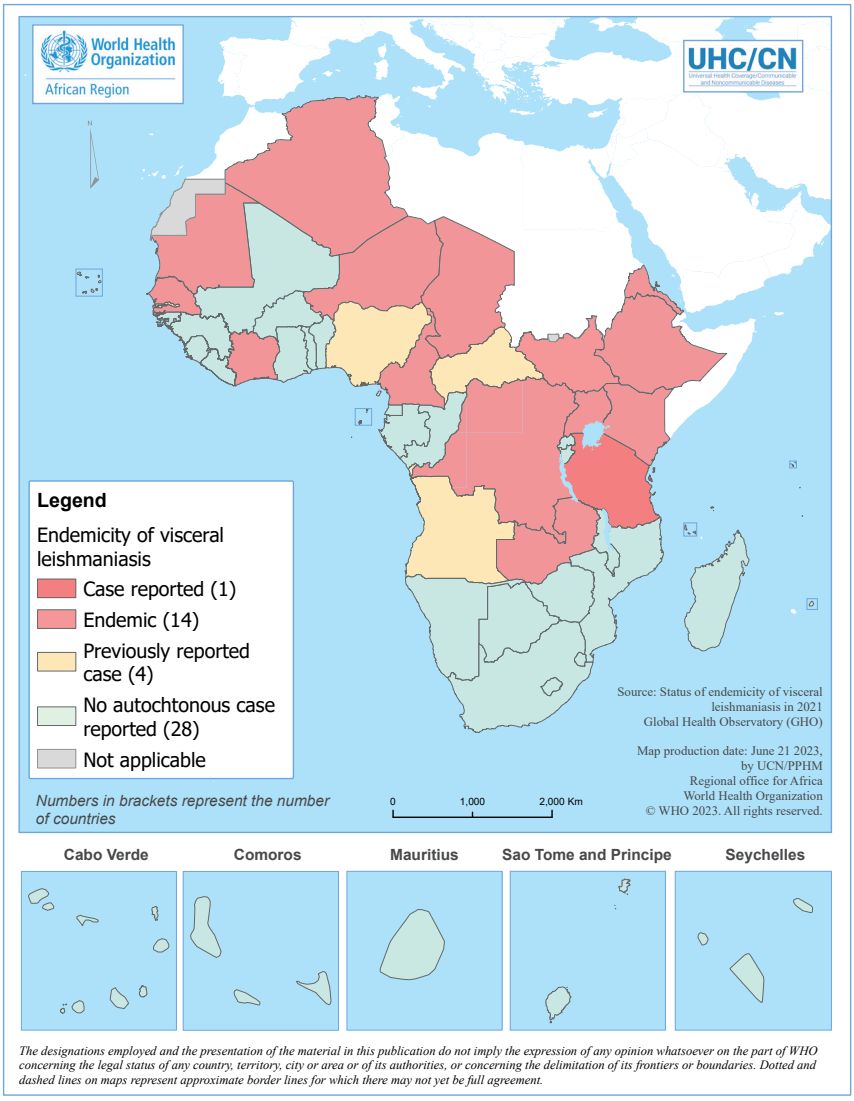
Visceral leishmaniases

Leishmaniasis affects some of the world's poorest people. The disease is associated with malnutrition, population displacement, poor housing, a weak immune system, and lack of financial resources. Epidemics of leishmaniasis often occur when many people who are not immune move into areas where transmission is high. There are three main forms of leishmaniases: visceral (the most serious form because it is almost always fatal without treatment), cutaneous (the most common, usually causing skin ulcers), and mucocutaneous (affecting the mouth, nose, and throat).

Leishmaniasis continues to be a major health problem in four eco-epidemiological regions of the world: the Americas, east Africa, north Africa, and west and south-east Asia. In 2021, just over 11 000 new visceral leishmaniases cases were reported to WHO, with 33% of the global burden of cases located in the African Region (see Figure 18). Of the 11 countries reporting 97% of visceral leishmaniases cases worldwide, five of them are in the African Region (Eritrea, Ethiopia, Kenya, South Sudan, and Uganda).[45]

Figure 18. Map of endemicity of visceral leishmaniasis, WHO African Region, 2022

Source: Status of endemicity of visceral leishmaniasis. In: WHO Global Health Observatory [online database]. Geneva: World Health Organization; 2022 (https://www.who.int/data/gho/data/indicators/indicator-details/GHO/status-of-endemicity-of-visceral-leishmaniasis, accessed 8 June 2023).



Key achievements

Robust partnerships have enabled the implementation of visceral leishmaniasis elimination activities, along with the donation of supplies for diagnosis and treatment and funding from the Spanish government, the Foreign, Commonwealth and Development Office, and Gilead Sciences.

The new WHO treatment guideline on visceral leishmaniasis in HIV coinfected patients in east Africa and south-east Asia was published in 2022. Developed for national leishmaniasis control programme managers, the guidelines aim to provide up to date, evidence-based recommendations on optimal therapeutic choices for patients with visceral leishmaniasis and HIV coinfection. A strategy for visceral leishmaniasis elimination in east Africa is being developed and will be used as an advocacy and guiding tool for implementation of activities.

Challenges and priorities

Major challenges for visceral leishmaniasis elimination include the relatively insensitive point of care diagnostics and suboptimal efficacy of available medicines. WHO has published target product profiles to encourage researchers and developers to find more sensitive diagnostic tests and less toxic or easily administered drugs. The lack of an effective vector control strategy remains a pressing challenge. This is being addressed through the Regional Framework for the Implementation of the Global Vector Control Response in the WHO African Region.

Preventive chemotherapy neglected tropical diseases

Lymphatic filariasis

Microfilaria of Wuchereria bancrofti in thick blood smear stained with Giemsa. © Photo Centers for Disease Control and Prevention

Lymphatic filariasis, also known as elephantiasis, impairs the lymphatic system and can lead to the abnormal enlargement of body parts, causing pain, severe disability, and social stigma. It is spread through the bites of infected mosquitos, which pick up the larvae when they feed and pass it on. The worm species settle in the lymphatic system, causing swelling and painful disfigurement. Eliminating lymphatic filariasis can prevent unnecessary suffering and contribute to the reduction of poverty.

Key achievements

As of 2021, two countries (Malawi and Togo) had been validated as having eliminated lymphatic filariasis as a public health problem and are under surveillance, and an additional five countries (Benin, Cameroon, Mali, Sao Tome and Principe, and Uganda) were able to stop mass drug administration given progress to-date. Mass drug administration had also been scaled-up to all endemic districts in 21 countries as part of active elimination efforts.

By 2021, the population that no longer required active treatment for lymphatic filariasis had increased to 177.3 million, compared with 162.8 million in 2020.

Challenges and priorities

Low treatment coverage rates remain a challenge. In 2021, the total population in the region requiring preventive chemotherapies was 342.4 million, however the number of people treated in the countries that reported was 101.3 million, reflecting approximately 30% coverage.[46] As of 2021, mass drug administration had been started, but not scaled to all endemic districts, in five countries (Angola, Central African Republic, Madagascar, Nigeria, South Sudan), with Gabon yet to start mass drug administration of any kind.

Onchocerciasis

Onchocerciasis, commonly known as 'river blindness', is an eye and skin disease. It is caused by a parasitic worm and transmitted by repeated bites of infected blackflies. These blackflies breed along fast-flowing rivers and streams, close to remote villages located near fertile land where people rely on agriculture. Symptoms include severe itching, disfiguring skin conditions and visual impairment, including permanent blindness.

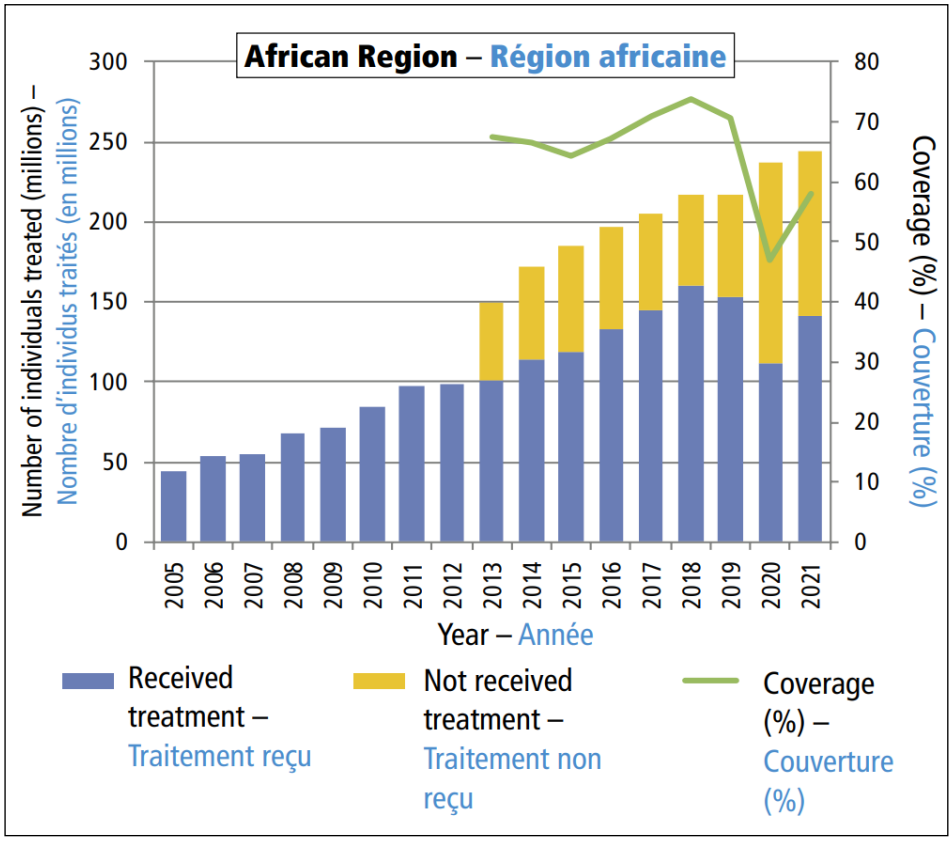
More than 99% of people affected by onchocerciasis live in 31 countries in the African Region. Mass drug administration is the current core strategy to eliminate onchocerciasis, with a minimum requirement of 80% therapeutic coverage. At least 12 to 15 years of annual treatments are required in to eliminate transmission, corresponding to the lifespan of the parasitic worm.

Key achievements

A major success in 2021 was the confirmation of the elimination of transmission of onchocerciasis in Niger – the country is currently preparing the required paperwork to be verified by WHO as having successfully eliminated the disease.

In 2021, the total population requiring preventive chemotherapy in the region was 243.7 million, and the number of individuals receiving treatment was 141.5 million – representing a coverage rate of 58%.[47] The number of individuals receiving treatment rose between 2005 and 2021, with a slight drop during the pandemic (2020-2021) (see Figure 19). Between 2020 and 2021, the number of individuals no longer requiring treatment also increased from 1.1 to 1.29 million respectively.

Figure 19. Number of individuals treated for onchocerciasis, WHO African Region, 2005–2021



Source: World Health Organization. Elimination of human onchocerciasis: progress report, 2021. Weekly epidemiological record. 2022;97(No. 46):591–598 (https://www.who.int/publications/i/item/who-wer9746-591-598, accessed 28 June 2023).

In January 2023, WHO and partners launched the Global Onchocerciasis Network for Elimination (GONE) to accelerate progress towards onchocerciasis targets set in the global neglected tropical diseases road map. This network is a country-driven initiative, and the emphasis is on pragmatic and flexible solutions to ensure the needs of individual country programmes are met. The network will intensify an integrated, cross-cutting approach and serve as an advocacy body, at both the national and international levels. Specific sub-groups will identify key challenges and propose strategies to address issues to fast track elimination targets.

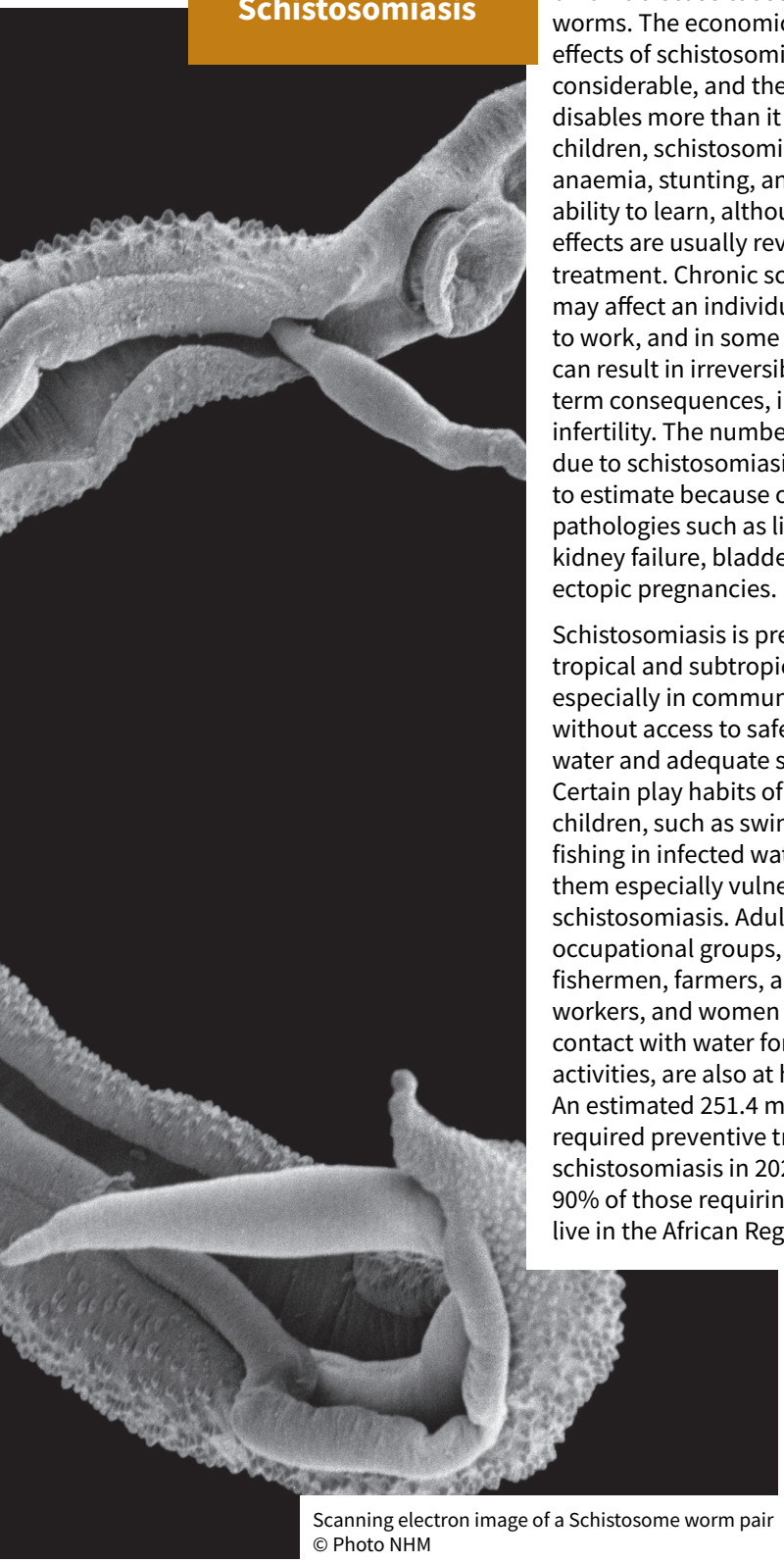
Challenges and priorities

Loiasis is a parasitic infection spread by biting flies in west and central African rainforests. The presence of both onchocerciasis and loiasis in some settings in the African Region is a serious challenge towards elimination as safe mass drug administration campaigns cannot be implemented due to the serious adverse events, including death, in persons with high levels of circulating loiasis. Appropriate treatment strategies are needed to overcome this challenge.

Effective diagnostic tools for onchocerciasis are urgently needed for elimination mapping and surveillance. In response, the NTD Diagnostics Technical Advisory Group is currently evaluating the performance and ease of use of two new tools, including two point-of-care rapid antibody tests and DNA detection assays.[48]

A blind man, due to onchocerciasis, is being guided by his grandson in Nigeria © WHO AFRO

Schistosomiasis



Scanning electron image of a Schistosome worm pair
© Photo NHM

Schistosomiasis is an acute and chronic disease caused by parasitic worms. The economic and health effects of schistosomiasis are considerable, and the disease disables more than it kills. In children, schistosomiasis can cause anaemia, stunting, and a reduced ability to learn, although the effects are usually reversible with treatment. Chronic schistosomiasis may affect an individuals' ability to work, and in some cases can result in irreversible long-term consequences, including infertility. The number of deaths due to schistosomiasis is difficult to estimate because of hidden pathologies such as liver and kidney failure, bladder cancer, and ectopic pregnancies.

Schistosomiasis is prevalent in tropical and subtropical areas, especially in communities without access to safe drinking water and adequate sanitation. Certain play habits of young children, such as swimming or fishing in infected water, make them especially vulnerable to schistosomiasis. Adults in certain occupational groups, including fishermen, farmers, and irrigation workers, and women who are in contact with water for domestic activities, are also at higher risk. An estimated 251.4 million people required preventive treatment for schistosomiasis in 2021 – at least 90% of those requiring treatment live in the African Region.[49]

Key achievements

Over the past 10 years there has been a significant scale-up of treatment campaigns in several sub-Saharan countries, where most of those at risk live. These treatment campaigns resulted in a decrease in the prevalence of schistosomiasis in school age children by almost 60%.[50] Further, among the 41 schistosomiasis-endemic countries requiring preventive chemotherapy in the region, 15 countries made significant progress in implementing elimination strategies such as large-scale treatment of at-risk population groups, access to safe water, improved sanitation, and hygiene education.

Challenges and priorities

As of 2023, no country has been confirmed as having eliminated schistosomiasis in the region. In countries with taeniasis and cysticercosis (parasitic infections caused by tapeworms) elimination programmes generally experience low treatment coverage due to higher rates of drug refusal, due to the higher rates of negative side effects from the drugs. In 2021, for instance, the number of people in the region requiring preventive chemotherapies was 227.7 million, however only 76.5 million received treatment (an approximately 34% coverage rate).[51]

WHO is addressing these challenges by launching a new set of tools to assist with the control of taeniasis and cysticercosis, including a mapping tool to identify high-risk areas, guidelines for preventive chemotherapy for the control of taeniasis, and guidelines for the clinical management of neuro-cysticercosis. In addition, WHO is promoting the implementation of these tools in several African countries, facilitating the donation of drugs for the control of taeniasis, promoting WASH, and supporting One Health control projects.

Soil-transmitted helminths

Soil-transmitted helminths (STH) such as *Ascaris lumbricoides*, hookworms, and *Trichuris trichiura* are intestinal parasites that require fecal contamination of the environment for transmission © Source Death to Onchocerciasis and Lymphatic Filariasis, Washington University School of Medicine in St. Louis.

Soil-transmitted helminth (STH) infections are among the most common infections worldwide with an estimated 1.5 billion people affected – 24% of the world's population. These infections affect the poorest and most deprived communities that have poor access to clean water, sanitation, and hygiene in tropical and subtropical areas, with the highest prevalence reported from sub-Saharan Africa, South America, and Asia.

Groups at risk for STH include young children, adolescent girls, and pregnant and lactating women, who need additional micronutrients. Soil-transmitted helminth infections affect an individuals' nutritional status and impair the cognitive development of children. In addition, they cause chronic intestinal blood loss that can result in anaemia, especially in adolescent girls and women of reproductive age.

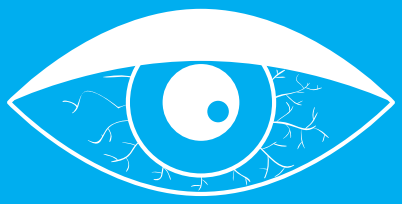
Key achievements

In 2022, Niger was classified as a country that no longer requires preventive chemotherapy for STH, moving to post-treatment surveillance. Other countries, including Benin, Burkina Faso, Burundi, Ghana, Mali, Rwanda, Sao Tome and Principe, the United Republic of Tanzania, and Togo, may achieve this milestone during 2023.[52] WHO is in the process of finalizing guidance and tools for use to verify elimination in countries that have made significant progress and have likely achieved this milestone.

Challenges and priorities

As of 2023, no country has been confirmed as having eliminated soil-transmitted helminth in the region. Low treatment coverage rates remain a challenge. In 2021, the number of children in the region requiring preventive chemotherapies was 233.7 million, however the number of children treated in the 30 countries that reported was 81.2 million, or approximately 35%.[53]

Trachoma



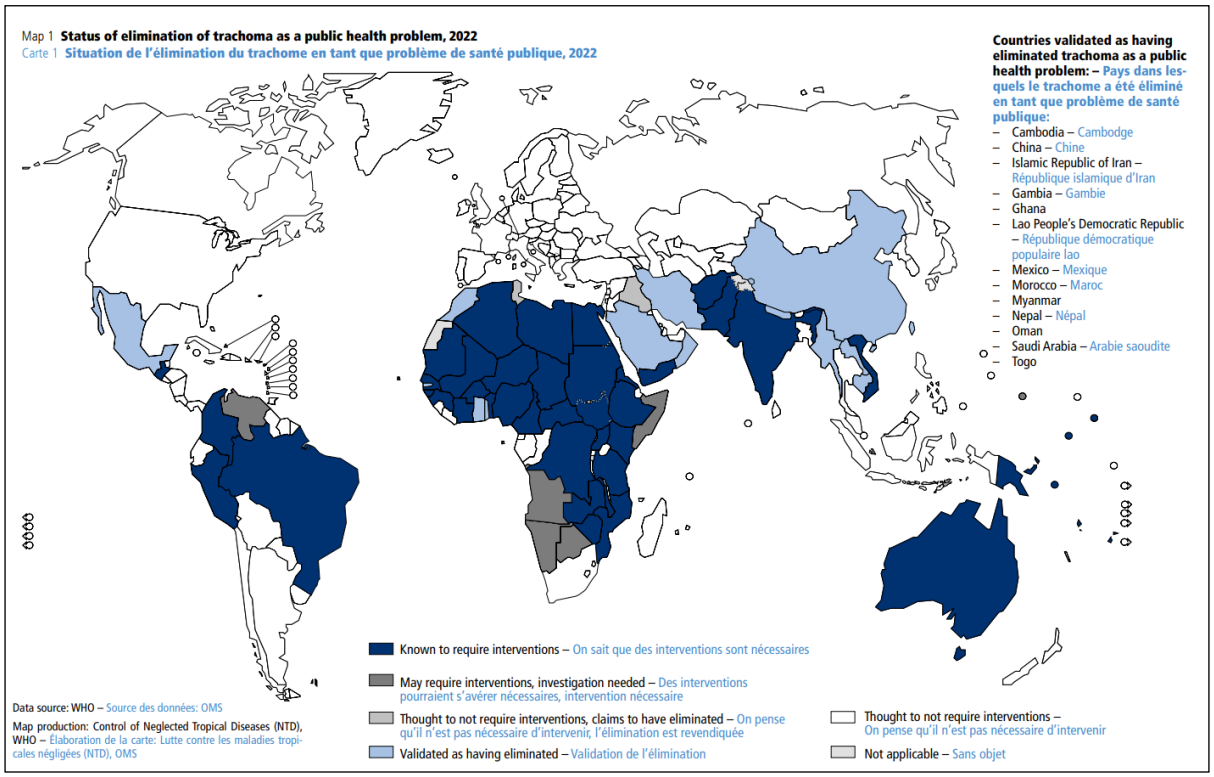
Trachoma is the leading cause of irreversible blindness worldwide. Infection spreads through personal contact (via hands, clothes, bedding, or hard surfaces) and by flies that have been in contact with infected eye or nose discharge. With repeated episodes of infection over many years, the eyelashes may be drawn in so that they rub on the surface of the eye. This causes pain and may permanently damage the cornea, leading to blindness.

It is a public health problem in 42 countries and is responsible for the blindness or visual impairment of approximately 1.9 million people. The disease is commonly found in many of the poorest and most rural areas of Africa, central and south America, Asia, Australia, and the Middle East. The African Region remains the most affected continent. The burden of trachoma on affected individuals and communities is enormous. The economic cost in terms of lost productivity from blindness and visual impairment is estimated at US$ 2.9–5.3 billion annually.[54]

Key achievements

To date, four countries have achieved elimination of trachoma as a public health problem in the African Region: Ghana (June 2018), the Gambia (April 2021), Togo (May 2022), and Malawi (September 2022). In 2022, Burundi reported having achieved the prevalence targets for elimination (see Figure 20).[55] The development of national multi-year neglected tropical diseases master plans, aligned with the road map and regional framework is ongoing.

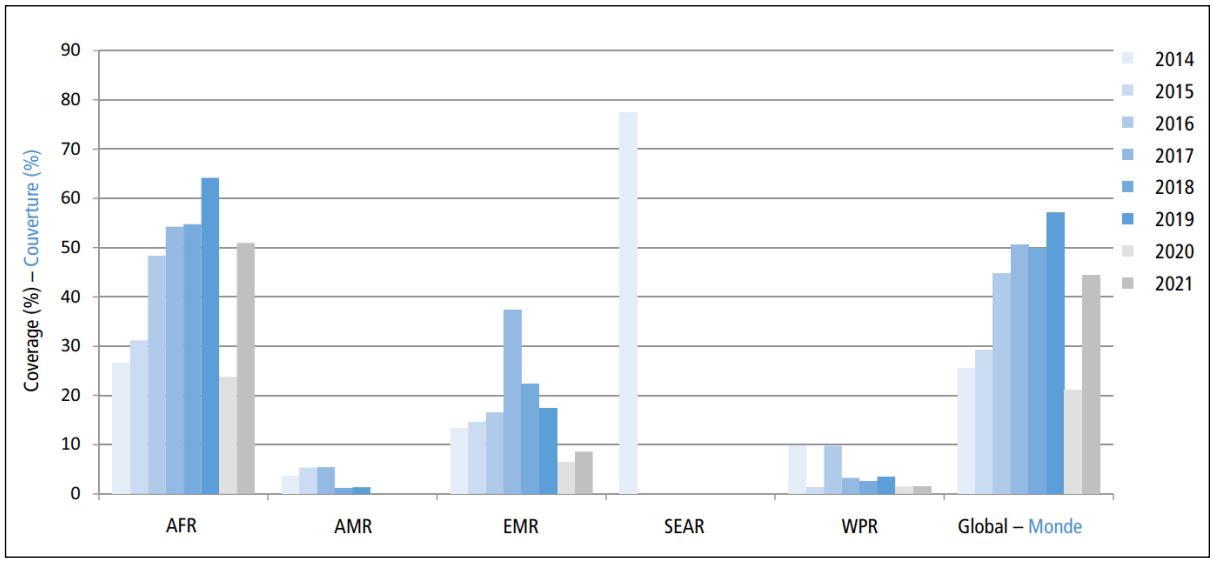
Figure 20. Status of elimination of trachoma as a public health problem, 2022



Source: World Health Organization. WHO Alliance for the Global Elimination of Trachoma: progress report on elimination of trachoma, 2021. Weekly epidemiological record. 2022;97(No. 31):353–364 (https://www.who.int/publications/i/item/who-wer9731-353-364, accessed 28 June 2023).

Implementation of the WHO SAFE strategy resulted in a decrease in the number of people requiring antibiotic treatment for trachoma in the region from 189 million in 2014, to 105 million as of June 2022.[56] In 2021, 124.7 million people in the region (86% of the global population in need), qualified for implementation of the A, F and E components of the SAFE strategy.[57] Of these, 63.6 million were treated with antibiotics – a 51% coverage rate (see Figure 21).

Figure 21. Population coverage with antibiotics for trachoma elimination, WHO Region, 2014–2021



Source: WHO Alliance for the Global Elimination of Trachoma: progress report on elimination of trachoma, 2021. World Health Organization Weekly epidemiological record. 2022;97(No. 31):353–364 (https://www.who.int/publications/i/item/who-wer9731-353-364, accessed 28 June 2023).
AFR = African Region; AMR = Region of the Americas; EMR = Eastern Mediterranean Region; EUR = European Region; SEAR = South-East Asia Region; WPR = Western Pacific Region
Coverage = number treated divided by population in areas that warranted treatment (%)

Challenges and priorities

Challenges in trachoma elimination include the emergence of districts with persistent or re-emerging (after a period of decline) trachoma. As of December 2021, 176 districts worldwide met the criteria for persistent trachoma: most of these districts (82%) were in Ethiopia.

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CONTROL

Disease control is generally accepted as the reduction of incidence, prevalence, morbidity, or mortality to a locally acceptable level because of deliberate health intervention efforts; continued intervention measures are required to maintain the reduction. This section reviews progress made in reducing the disease burden from 14 diseases targeted for control in the African Region, including:

- Four communicable diseases: human immunodeficiency virus (HIV), sexually transmitted infections (STIs), tuberculosis (TB), and viral hepatitis.
- Seven noncommunicable diseases: cervical cancer, childhood cancer, diabetes, ear health, eye health, mental, neurological, and substance abuse (MNS) disorders, and sickle cell disease.
- Three neglected tropical diseases that are amenable to case management (CM-NTDs): Buruli ulcer, cutaneous leishmaniasis, and taeniasis.

Communicable diseases

Human immunodeficiency virus (HIV)

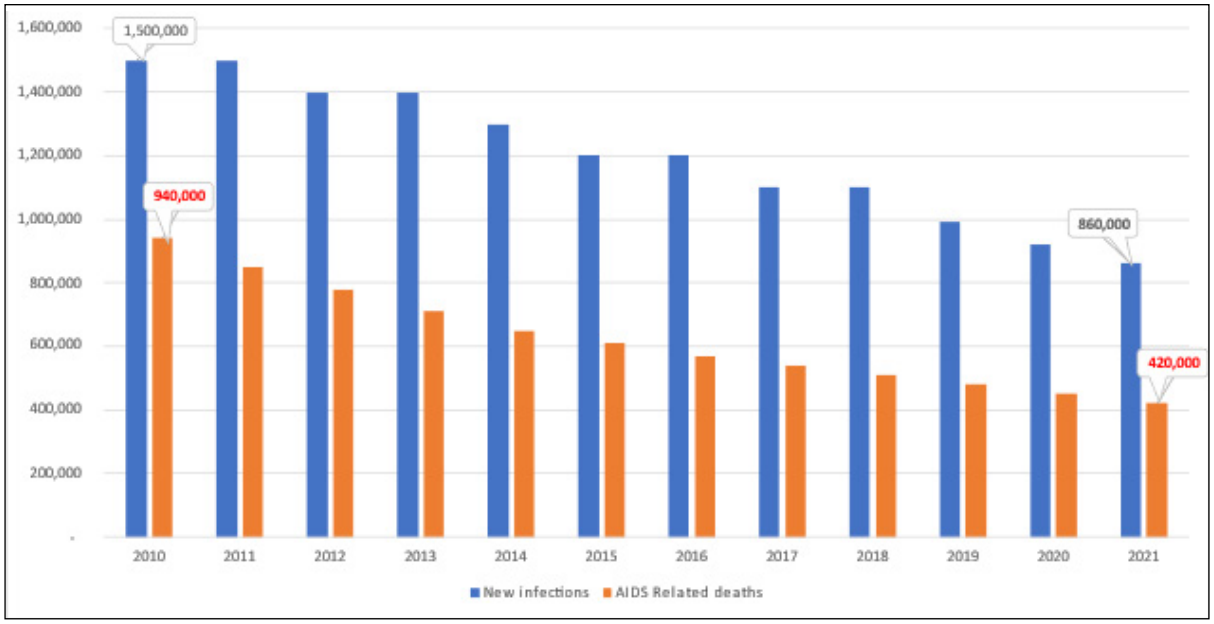
Human immunodeficiency virus (HIV) is an infection that attacks the body's immune system. Acquired immunodeficiency syndrome (AIDS) is the most advanced stage of the disease. HIV targets the body's white blood cells, weakening the immune system. This makes it easier to get sick with diseases like tuberculosis, infections, and some cancers. There is no cure for HIV. However, with access to effective HIV prevention, diagnosis, treatment, and care, HIV has become a manageable chronic health condition, enabling people living with HIV to lead long and healthy lives.

HIV/AIDS continues to be a major public health concern in the African Region. In 2021, 860 000 new cases of HIV and 420 000 deaths were reported from the region. Although sub-Saharan Africa is home to about 15% of the world's population, it accounts for an estimated 66% of all people living with HIV, 57% of all new HIV cases, and 65% of all AIDS deaths.

Key achievements

Despite challenges associated with the COVID-19 pandemic, substantial progress continues to be made in the fight against HIV. Between 2010 and 2021, the number of new HIV cases decreased by 44% and the number of people dying from HIV-related causes declined by 55% (see Figure 23). Significant progress was also made in the region towards the control of new HIV cases among children, with increased coverage of HIV treatment to prevent mother-to-child transmission for pregnant women living with HIV. Coverage among pregnant women increased from 45% in 2010 to 85% in 2020, with an estimated 53% reduction in new child HIV cases over the same period.

Figure 23. Annual number of new HIV infections and HIV-related deaths, WHO African Region, 2010–2021



Source: Indicator registry. In: AIDSinfo [online database]. Geneva: Joint United Nations Programme on HIV and AIDS; 2023 (https://indicatorregistry.unaids.org/, accessed 23 June 2023).

Several factors are contributing towards the key achievements seen in the region (see Box 13). Political commitment towards the HIV/AIDS response remains high and continues to grow. This is exemplified at the global level by the adoption of the SDGs, with a target of ending the HIV/AIDS epidemic by 2030. Over the last two decades, there has been a rapid expansion in domestic HIV/AIDS financing from Member States, and external funding particularly from the United States President's Emergency Plan for AIDS Relief (PEPFAR), the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), and other bilateral and multilateral sources.

Box 13 Key achievements in HIV control		
Pre-exposure Prophylaxis (PrEP) 490 000 people using PrEP at least once in 2021	**HIV testing services** 93% / 88% of adult women and men living with HIV in eastern and southern Africa know their HIV status 87% / 79% of adult women and men living with HIV in western and central Africa know their HIV status	**HIV treatment** 20.1 million people or 79% of people living with HIV were receiving treatment in 2021

Challenges and priorities

The HIV response has faced serious threats during the last two years because of the COVID 19 pandemic. However, despite disruptions to some HIV services, the response has shown significant resilience with HIV prevention and treatment programmes continuing to expand and adapt to COVID 19 mitigation measures. Despite remarkable achievements, reaching the first 95% of the 95-95-95 UNAIDS targets by 2025 will require increased HIV testing coverage in the general population with a focus on key populations, including men, adolescents, and young people.

Other challenges include:

- A lack of data. Data on key populations, including prevalence, attributable risk, population size estimates, and structural risk factors, are inconsistent in countries. Epidemiological information about key populations tends to focus on HIV prevalence.
- The overlap among key populations is rarely acknowledged, and there is little specific attention to young and adolescent members of key populations.
- National policies and guidelines are not being regularly updated to be in full compliance with WHO recommendations. In some countries the policies and guidelines are updated, but this is yet to be reflected in day-to-day practice.
- The integration of HIV and STI programmes remains a challenge.

Priority areas for action include HIV prevention and treatment, increased focus on key populations, improved paediatric treatment, and implementation of proven structural interventions. Also called critical enablers, these structural interventions include activities to overcome major barriers to service uptake, including social exclusion, marginalization, criminalization, and stigma. These need to be addressed for the priority actions around prevention and treatment to be successfully implemented.

Sexually transmitted infections (STIs)

Members of a Youth to Youth group in Mombasa, Kenya, go for community outreach on the beach. They distribute condoms and preform skits with messages relating to reproductive health. © Photo by Jonathan Torgovnik/Reportage by Getty Images

More than 30 different bacteria, viruses, and parasites are known to be transmitted through sexual contact. Some sexually transmitted infections (STIs) can also be transmitted from mother-to-child during pregnancy, childbirth, and breastfeeding. STIs have a profound impact on sexual and reproductive health. They are also associated with stigma, domestic violence, and reduced quality of life. More than 1 million STIs are acquired every day worldwide, the majority of which are asymptomatic.

Eight pathogens are linked to the greatest incidence of STIs. Of these, four are currently curable: chlamydia, gonorrhoea, syphilis, and trichomoniasis. The other four are incurable viral infections: hepatitis B, herpes simplex virus (HSV), HIV, and human papillomavirus (HPV). Each year there are an estimated 374 million new infections with one of four curable STIs.[58]

STIs have a direct impact on sexual and reproductive health. STIs like herpes, gonorrhoea, and syphilis can increase the risk of HIV acquisition. HPV infection causes cervical and other cancers. STIs such as gonorrhoea and chlamydia are major causes of pelvic inflammatory disease and infertility in women. Mother-to-child transmission of STIs can result in stillbirth, neonatal death, low-birth weight and prematurity, sepsis, neonatal conjunctivitis, and congenital deformities. The burden of morbidity and mortality due to congenital syphilis is high. Congenital syphilis is the second leading cause of preventable still births globally, preceded only by malaria.[59] In 2016, an estimated 404 000 congenital syphilis cases were in the African Region, accounting for 61% of the global burden.

Key achievements

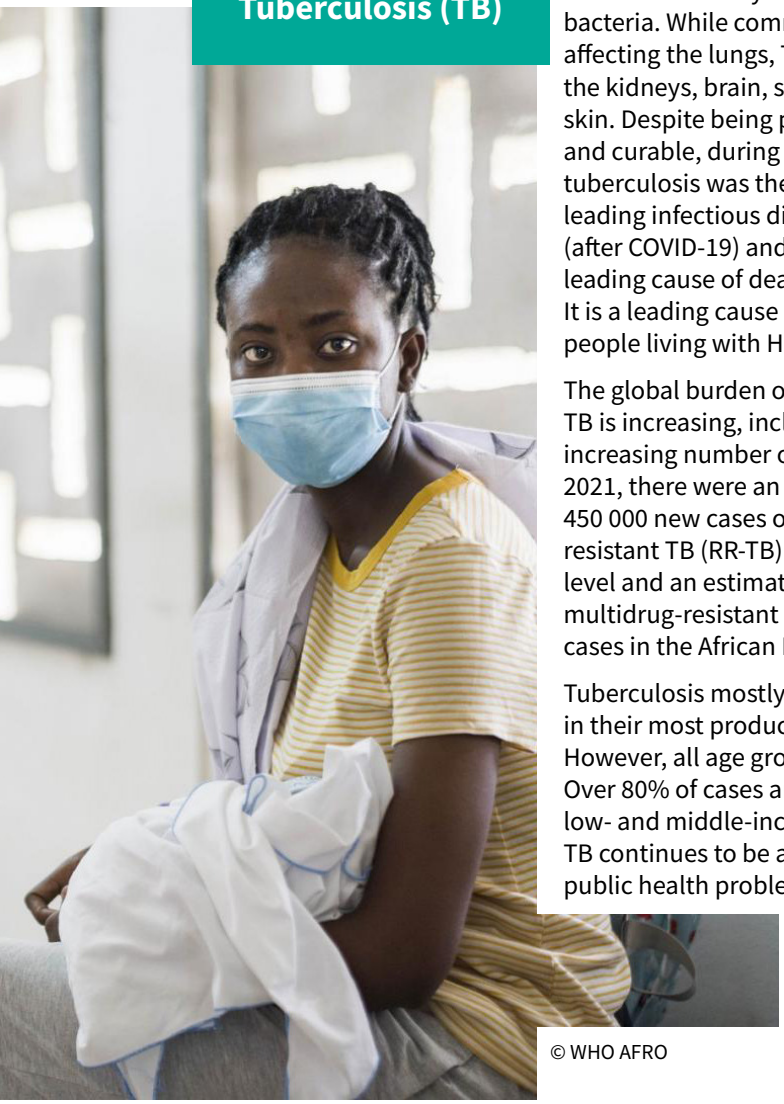
Results from a survey conducted during 2019 and 2020 found that (among the 26 countries who responded):

- 20 (77%) of countries had a national STI strategic plan,
- 19 (78%) had an elimination of mother-to-child transmission strategy,
- 24 (92%) had STI treatment guidelines,
- 11 (58%) had anti-microbial resistance surveillance for gonorrhea, and
- 8 (31%) had the human papilloma virus (HPV) vaccine in the national implementation plan.

Challenges and priorities

Drug resistance is a major threat to reducing the burden of STIs worldwide. The emerging anti-microbial resistance in *Neisseria gonorrhoeae* has increased rapidly in recent years and has reduced treatment options.[60] Increased monitoring of drug resistance is a clear priority, along with the development of appropriate interventions.

Tuberculosis (TB)



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Tuberculosis (TB) is an infectious disease caused by a type of bacteria. While commonly affecting the lungs, TB also affects the kidneys, brain, spine, and skin. Despite being preventable and curable, during 2020–2021, tuberculosis was the second leading infectious disease killer (after COVID-19) and the 13th leading cause of death worldwide. It is a leading cause of death for people living with HIV.[61]

The global burden of drug-resistant TB is increasing, including an increasing number of deaths. In 2021, there were an estimated 450 000 new cases of rifampicin-resistant TB (RR-TB) at the global level and an estimated 77 000 multidrug-resistant TB (MDR-TB) cases in the African Region.[62]

Tuberculosis mostly affects adults in their most productive years. However, all age groups are at risk. Over 80% of cases and deaths are in low- and middle-income countries. TB continues to be a significant public health problem in the African Region, with a high number of cases and deaths. Despite making up only 15% of the world's population, the African Region accounted for 23% of new TB cases and 31% of TB-related deaths in 2021.[63] This is the equivalent of 2.5 million people falling ill with tuberculosis and an estimated 500 000 deaths.

Key achievements

Between 2000 and 2021, an estimated 16 million deaths were averted in the African Region due to TB and TB/HIV interventions. In 2021, the African Region passed the 2020 milestone of the End TB Strategy, with a 22% reduction in new cases compared with 2015.[64]

A key success factor has been continued country ownership of TB strategies and activities. In 2019, for instance, four countries (Angola, Botswana, Cabo Verde, and South Africa) reported that domestic expenditure on TB accounted for more than 70% of the total expenditure on the disease.

Box 14 Regional achievements in 2020/2021		
Prevention 61% of HIV-positive people newly enrolled in care received preventive treatment	**Laboratory** All 47 Member States adopted implementation of the WHO policy on the use of rapid molecular tests	**Diagnosis and notification** 66% of pulmonary TB cases bacteriologically confirmed (63% globally) 89% of notified TB patients knew their HIV status (76% globally)
Drug resistant TB 96% of cases with laboratory confirmed MDR/RR-TB started on treatment (98% globally)	**Treatment coverage** 60% of people living with TB were treated during 2021 (61% globally)	**Treatment success** 86% of new and relapse cases were successfully treated in 2020 (86% globally) 71% of MDR/RR-TB cases were successfully treated in 2020 (60% globally)

Success story
Strengthening laboratory services for improved TB testing and diagnostics

With its limited access to laboratory services, the Central African Republic has been reporting only about half of the estimated number of TB cases each year. Starting in 2019, WHO has increased its support to the country to address this critical gap.

Between 2020 and 2021, WHO purchased 11 GeneXpert machines. The GeneXpert is an easy-to-deploy platform for laboratories that detects the presence of TB bacteria as well as resistance. The platform provides results within less than two hours. Along with contributing to installation of the machines, WHO provided training to staff on machine installation, use, and maintenance.

Working with national counterparts, WHO supported the country in developing a strategy for transporting sputum and other biological samples in 16 health districts – bringing samples from collection sites to laboratories as quickly as possible. Tools have been developed and implemented, including technical sheets for the preparation and transport of samples and sampling protocols. Sample transport kits, comprised of materials that can be found locally, have been prepared and distributed.

With the support of WHO, the Ministry of Health has been able to significantly improve patient access to TB diagnosis – with three-times as many tests conducted in 2021 as compared to all the years prior to 2019. This has resulted in a clear improvement in the notification rate of susceptible TB cases in only two years, from 43% in 2018, to 58% at the end of 2021.

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Challenges and priorities

Despite the continuing decline in TB cases in the region, TB incidence rates are some of the highest in the world and the burden from TB and TB/HIV remains persistent. There is growing concern over how to ensure adequate responses to TB in the face of multiple global public health challenges, threats, and priorities.

Access to TB diagnosis and treatment services remains low, at approximately 60%. This is due to several factors including weak general health delivery systems, suboptimal coverage with modern diagnostic laboratory services, sub-optimal performance indicators, and inadequate financial resources to support the desired scale up of intervention towards realizing the End TB targets. To enhance patient follow-up and reduce the higher mortality rates among people living with HIV/AIDS, there is a need for more intensified TB case-finding among people attending HIV care services and for strengthened linkages between TB and HIV recording and reporting systems.

For drug resistant TB, there is low case detection rate, partly due to inadequate application of the more sensitive and specific molecular testing technology and a persisting diagnosis-treatment gap for confirmed cases. Furthermore, country adaptation to new WHO guidelines is not yet universally achieved.

For many countries in the region, national TB prevalence surveys remain the best available source of determining disease burden for baselining and tracking impact of interventions over time. To date, only 16 of the 47 Member States have either completed or are in the process of conducting such surveys. Countries in west and central Africa are particularly under-represented in this respect. Further, many countries do not have any available data, and the accuracy of reported data remains unclear.

Despite several ‘free TB care’ policies in the region, national TB patient cost surveys have shown that TB-affected households finance a significant proportion of TB care and bear unaffordable cost with devastating consequences for households. Such costs pose a barrier to TB care and may fuel disease transmission and resistance. Further, only very few countries have determined the level of catastrophic costs considering need for social protection under the universal health coverage principle.

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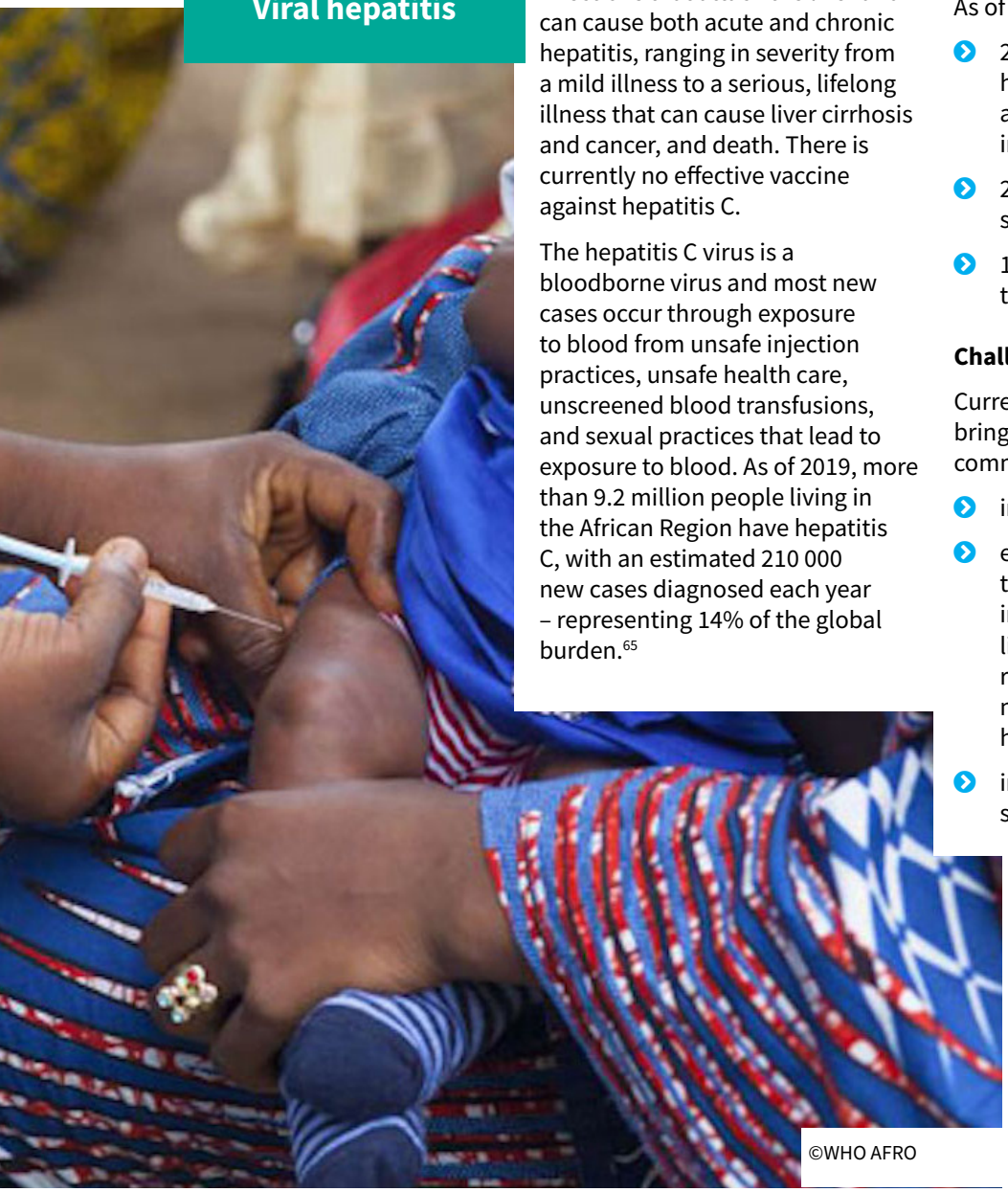
Viral hepatitis



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Hepatitis B and hepatitis C are viral infections that attack the liver and can cause both acute and chronic hepatitis, ranging in severity from a mild illness to a serious, lifelong illness that can cause liver cirrhosis and cancer, and death. There is currently no effective vaccine against hepatitis C.

The hepatitis C virus is a bloodborne virus and most new cases occur through exposure to blood from unsafe injection practices, unsafe health care, unscreened blood transfusions, and sexual practices that lead to exposure to blood. As of 2019, more than 9.2 million people living in the African Region have hepatitis C, with an estimated 210 000 new cases diagnosed each year – representing 14% of the global burden.[65]

Key achievements

As of 2021 in the African Region:

- 27 countries have a national hepatitis programme either as a standalone programme or integrated into HIV services.
- 21 countries have a national strategic plan for viral hepatitis.
- 17 countries have testing and treatment guidelines.

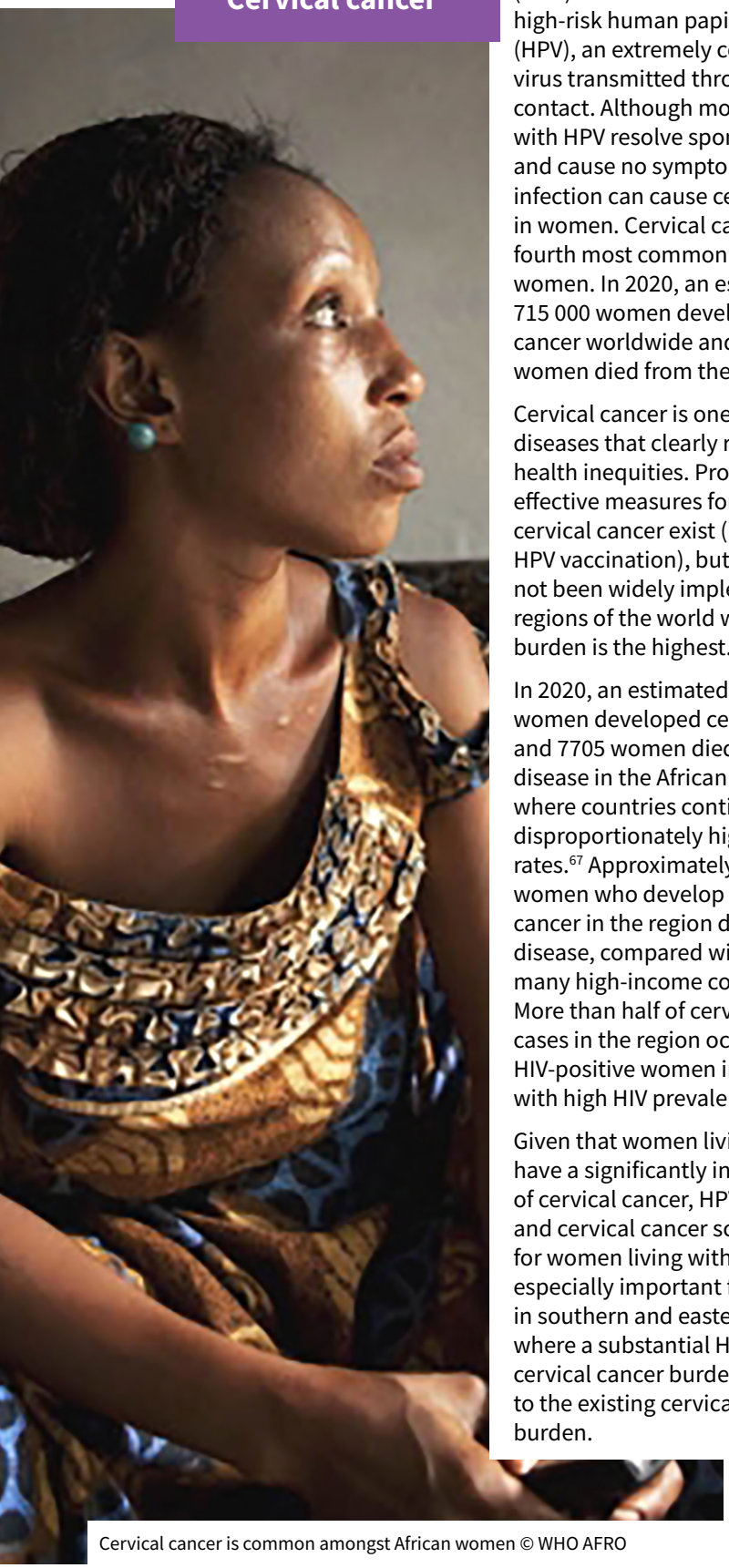
Challenges and priorities

Current priorities are focused on bringing hepatitis care closer to the community by:

- increasing domestic funding,
- establishing a platform for the integrated delivery of interventions, including the life-course approach, and reproductive, maternal, newborn, child and adolescent health care, and
- investing in information and surveillance for action.

Noncommunicable diseases

Cervical cancer



Cervical cancer is common amongst African women © WHO AFRO

Almost all cervical cancer cases (99%) are linked to infection with high-risk human papillomaviruses (HPV), an extremely common virus transmitted through sexual contact. Although most infections with HPV resolve spontaneously and cause no symptoms, persistent infection can cause cervical cancer in women. Cervical cancer is the fourth most common cancer in women. In 2020, an estimated 715 000 women developed cervical cancer worldwide and over 341 000 women died from the disease.[66]

Cervical cancer is one of the diseases that clearly reflects global health inequities. Proven and cost-effective measures for eliminating cervical cancer exist (including HPV vaccination), but to date have not been widely implemented in regions of the world where disease burden is the highest.

In 2020, an estimated 110 755 women developed cervical cancer and 7705 women died from the disease in the African Region, where countries continue to face disproportionately high mortality rates.[67] Approximately 68% of women who develop cervical cancer in the region die from the disease, compared with 30% in many high-income countries.[68] More than half of cervical cancer cases in the region occur among HIV-positive women in countries with high HIV prevalence.[69]

Given that women living with HIV have a significantly increased risk of cervical cancer, HPV vaccination and cervical cancer screening for women living with HIV are especially important for countries in southern and eastern Africa, where a substantial HIV-attributable cervical cancer burden has added to the existing cervical cancer burden.

Key achievements

Significant progress has been made across several of the targets for cervical cancer control in the region including:

- **Vaccination.** Twenty-four countries have introduced the HPV vaccine into their national immunization programs and conducted vaccination campaigns.
- **Screening** for cervical cancer is available in 34 Member States and 16 countries have incorporated HPV DNA testing into their national programs. In Ethiopia, Uganda, Zambia, and Zimbabwe, existing HIV treatment and care services and resources are being leveraged to target women who live with HIV for HPV testing.
- Screening and **treatment** of precancerous lesions has been implemented in 13 countries, with programmes operating in Burkina Faso, Côte d'Ivoire, Malawi, Nigeria, Rwanda, and Senegal reaching 90% treatment targets. Radiation therapy is offered in 24 countries and two countries (Benin and Burkina Faso) have introduced palliative care into primary health care services.
- **Health systems strengthening.** Health workers in seven countries were trained in cervical cancer screening, eight countries have updated their cervical cancer guidelines and strategies, three countries have developed HPV testing guidelines, and four have developed treatment guidelines.

- **Policy.** Côte D'Ivoire, Mauritania, Namibia, Uganda, and eSwatini have developed national cervical cancer elimination strategies, and another 12 countries have developed or are in the process of developing national cancer control plans, inclusive of cervical cancer elimination.
- **Resource development.** WHO has developed and disseminated policy briefs on cervical cancer. In addition, the following toolkits and resource materials were developed to ensure Member States can develop and implement comprehensive national cervical cancer prevention and control programmes:
  - Strategic planning for cervical cancer prevention and control in Africa. Training manual.
  - Advocacy for cervical cancer prevention and control in Africa. Facilitator manual.
  - IEC toolkit for cervical cancer prevention and control in the African region. Training guide.

Success story
Expanding cervical cancer screening in Kenya

Starting in 2021, Kenya piloted a community-based cervical cancer screening programme using human papillomavirus (HPV) DNA testing – a highly effective testing method that detects high-risk strains of HPV. Of the 10 000 women screened during the month-long pilot, 17% tested positive for HPV and nearly 90% of those who tested positive received treatment.

Traditionally, low screening coverage has hampered uptake of cervical cancer screening programmes in Kenya where stigma, lack of awareness, sociocultural barriers and opportunistic screening are the norm. While there are slightly more than 12 000 health facilities in Kenya, there has been no HPV testing in the 5770 public facilities in the country. The health system is generally constrained by a limited health workforce with various competing priorities and challenges in availability of requisite infrastructure for screening – limiting access to cancer screening services within the primary care setting. HPV-based screening therefore provides an opportunity to circumvent this by enabling a community-based, self-sampling approach to screening and reaching more women in the privacy of their homes.

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Challenges and priorities

Challenges include:

- Limited financial resources. While most countries have developed policy documents for cancer control, including national plans and strategies, there are no matching financial commitments. While cost-effectiveness analyses clearly show the advantage of HPV testing and vaccination, the issue of affordability remains a huge bottleneck.
- Inadequate laboratory resources including systems for implementation and scale up of HPV testing on a population-based level are an obstacle to progress.
- Inadequate monitoring and evaluation systems mean poor cancer surveillance. Lack of quality cancer registries limits the understanding of the true epidemiology in the region; only six countries in sub-Saharan Africa have validated cancer registries.

Box 15 Priorities for cervical cancer control		
Integrated approaches to increase access, reduce cost, and reduce stigma	**Improved** treatment options for invasive cervical cancer	**Intensified** resource mobilisation by Member States
Efficient integrated networks of laboratory services	**Leverage** skilled resources through an eHub for cancer services	**Disseminate** information to countries

Childhood cancer

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Each year, more than 400 000 children worldwide develop cancer, however only half are ever diagnosed. While childhood cancer is curable for most children when essential diagnostic, therapeutic, and supportive care services are accessible, profound inequalities exist within and between countries. Survival rates from childhood cancer in the African Region are estimated to be 20% – compared with over 80% in North America and parts of Europe.

Key achievements

- Five countries (Cameroon, Ghana, Senegal, Zambia, and Zimbabwe) have developed National Treatment Guidelines for childhood cancer.
- There has been ongoing development of regional advocacy and awareness-raising tools on childhood cancers for the region. Several key partnerships have been developed with key civil society actors involved in the field of childhood cancer.
- Mental Health and Psychosocial Support guidelines for children are being developed in collaboration with Childhood Cancer International, with a pilot project in Burkina Faso.
- Cameroon has created a pediatric oncology newsletter.
- Ghana has advocated at a high level to include childhood cancer in the National Health Insurance Authority benefit package.

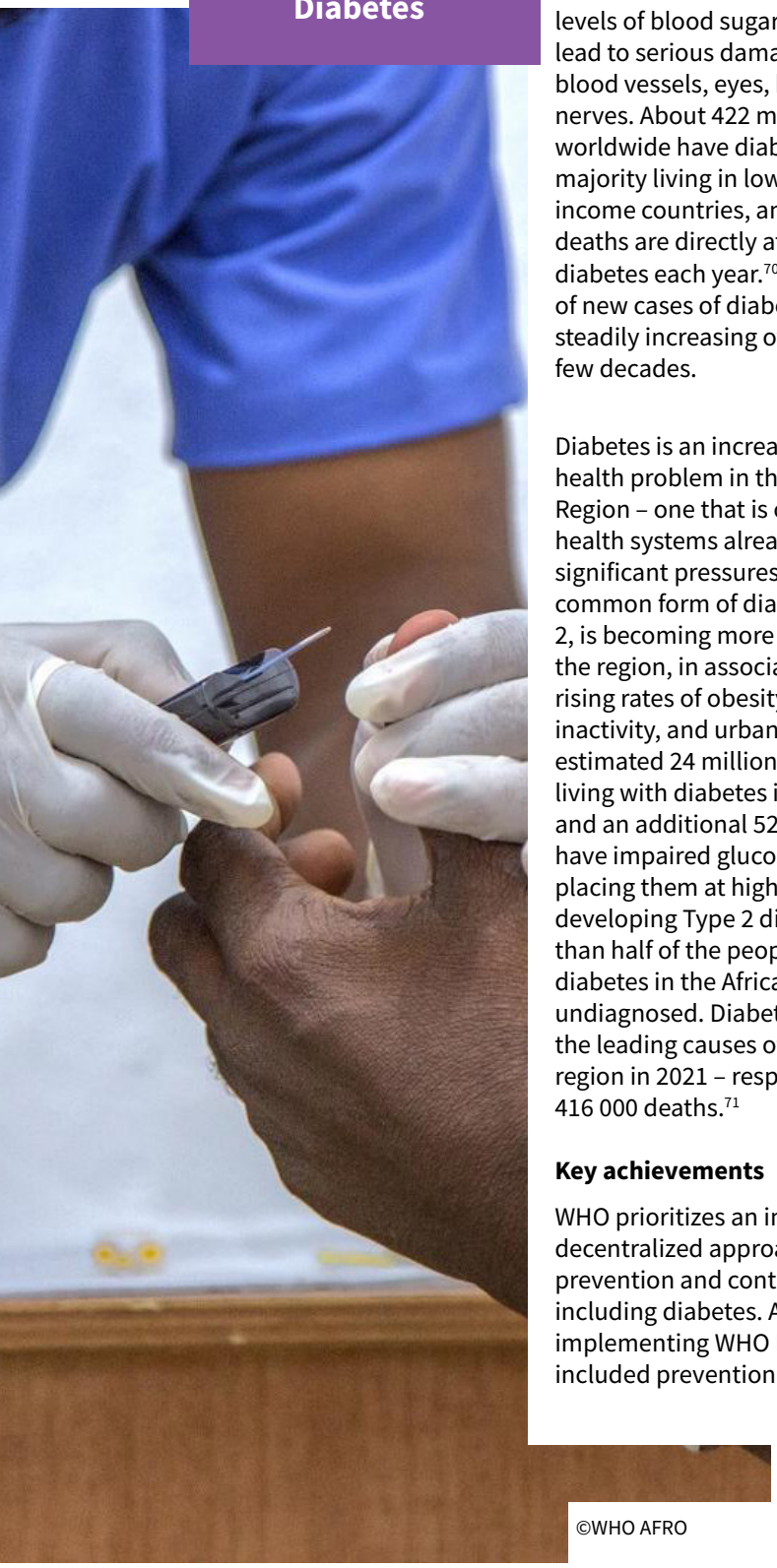
Challenges and priorities

Progress in the battle against childhood cancers is limited by several factors:

- Limited data availability, including poor outcome data due to the lack of cancer registries.
- Weak government commitment to funding centralized drug procurement for access to affordable, quality medicines for childhood cancer.
- Almost no dedicated budget line for childhood cancer in most countries and no insurance schemes or government coverage for childhood cancer care.
- Lack of training plans for health personnel in the prevention and management of childhood cancer.
- High rates of late presentation and treatment abandonment.

Immediate needs for the future are to engage technical and financial partners to mobilise resources; finance childhood cancer care through health insurance or government subvention in public hospitals; and establish public-private partnerships with national and international nongovernmental organizations to standardize and reduce the cost of childhood cancer care in public and private facilities.

Diabetes



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Diabetes is a chronic metabolic disease characterized by elevated levels of blood sugar, which can lead to serious damage to the heart, blood vessels, eyes, kidneys, and nerves. About 422 million people worldwide have diabetes, the majority living in low-and middle-income countries, and 1.5 million deaths are directly attributed to diabetes each year.[70] The number of new cases of diabetes has been steadily increasing over the past few decades.

Diabetes is an increasing public health problem in the African Region – one that is challenging health systems already under significant pressures. The most common form of diabetes, Type 2, is becoming more common in the region, in association with rising rates of obesity, physical inactivity, and urbanization. An estimated 24 million adults are living with diabetes in the region, and an additional 52 million adults have impaired glucose tolerance, placing them at high risk for developing Type 2 diabetes. More than half of the people living with diabetes in the African Region are undiagnosed. Diabetes was one of the leading causes of death in the region in 2021 – responsible for 416 000 deaths.[71]

Key achievements

WHO prioritizes an integrated and decentralized approach to the prevention and control of NCDs including diabetes. All countries implementing WHO PEN have included prevention and care for diabetes. In addition, WHO facilitated the donation of insulin to 28 countries in the region, to cover a gap timeframe of about six months based on information provided by ministries of health on the capacity of their health systems to manage storage and supply during a time when transport systems have been disrupted and health-care systems are stretched due to COVID-19.

Challenges and priorities

The increasing prevalence of obesity and overweight in adults and children is a key determinant of the increasing prevalence of diabetes in the region. Weak health systems in the region and the lack of funding make it difficult to provide needed services for the prevention and control of diabetes. In addition, poor access to essential medicines including insulin and diagnostics, is a contributing factor to the disability, morbidity, and mortality from diabetes in the region.

Actions to be taken include developing the regional diabetes blueprint, which will provide key information on the status of diabetes in the region and highlight challenges across the prevention, diagnosis, and care cascade. This will provide empirical evidence to inform setting regional targets based on global ones and mobilizing resources to ensure implementation. Additional priorities include, strengthening access to care through the implementation of the PEN Plus regional strategy, as well as increasing collaboration with the TB programme as a strategy to address the bi-directional relationship between TB and diabetes.

Ear health

Ear Health © WHO AFRO

Ear and hearing health is important to health and wellbeing. Untreated hearing loss and ear disease can have a large impact on the lives of children and adults alike.[72] Hearing loss may result from genetic causes, complications at birth, certain infectious diseases, chronic ear infections, the use of particular drugs, exposure to excessive noise, and ageing. As much as 60% of childhood hearing loss is due to preventable causes.

An estimated 360 million people worldwide have disabling hearing loss, 32 million of these are children.[73] The majority of people with disabling hearing loss live in low- and middle-income countries. Projections estimate that there will be 185 million people living with hearing loss in the African Region by 2030, increasing to 338 million by 2050.[74] Failure to address hearing loss costs African economies US$ 27.1 billion dollars annually.[75]

Key achievements

Progress has been made across several areas of work including:

- Annual implementation of social media campaigns on World Hearing Day.
- WHO NCD country-level staff were trained in 2022 on ear diseases and hearing loss.
- Four countries (Guinea, Kenya, Malawi, and Rwanda) were supported to develop their National Strategic Plans for Ear Health.
- Planning is ongoing for a regional high-level roundtable on ear and hearing care and hearing loss to increase engagement of partners and philanthropic organizations.
- Regional situation analysis and regional interactive dashboard completed and included in the regional countries profile.
- Support provided to countries to implement essential ear health services.
- Ongoing development of two modules on ear health care to be integrated into PEN at the primary health level.
- Ongoing development of Centres of Excellence for ear, eye, and oral health in Kenya.

Challenges and priorities

The lack of financial resources specifically dedicated to ear health care remains a significant challenge. Public-private partnerships could be developed to address difficulties with government commitment, and to ensure the availability of hearing aids in-country. Financing of ear and hearing care, through health insurance or state subsidies in government hospitals, could also be implemented to address the lack of hearing aids, cochlear implants, and rehabilitation services. Technical and financial partnerships should be created as vehicles to mobilize resources, including for additional research on ear and hearing care.

Eye health

Eye health © WHO AFRO

Globally, at least 2.2 billion people have a vision impairment, and of these, at least 1 billion people have a vision impairment that could have been prevented or is yet to be addressed. This burden is not borne equally. It weighs more heavily on low- and middle-income countries, on older people, and on rural communities. Most worrying is that projections show that global demand for eye care is set to surge in the coming years due to population growth, ageing, and changes in lifestyle.

In the African Region, there has been significant success in the improvement of the burden of vision impairment caused by communicable diseases such as measles and onchocerciasis. However, cases of vision impairment caused by noncommunicable diseases are projected to increase due to increasing burden of NCDs in the region, in combination with increasing life expectancies. Access to eye care is often inequitably distributed. This situation, coupled with inadequate eye care staff, means that citizens of most countries in the region do not have access to affordable, necessary eye care services of sufficient quality.

Key achievements

WHO has developed several tools for eye health. In 2022, the WHO Eye Care in Health Systems: Guide for Action was launched. This tool provides practical, step-by-step, guidance to support Member States in planning and implementing the recommendations of the World Report on Vision with the goal to provide integrated people-centred eye care services. A Portuguese version of the Regional Integrated People-centred Eye Care: Guide for Action has been published with four new related tools developed to support both strategic and operational planning for eye health. Using the Primary Eye Care training manual developed for the region, WHO organized a sensitisation and in-country training workshop in Mozambique in 2020.

Challenges and priorities

Eye health is not included in the basic package of essential health services that should be available at primary health care facilities. Comprehensive eye health plans and implementation of a basic package for primary and community-level activities to prevent major eye diseases must be effectively integrated into primary and community health care to improve national and multisectoral coordination of eye health issues.

Protocols, guidelines, and training materials for detecting and secondary prevention of eye disorders are lacking at the primary health care level. Tools and guidance to implement primary eye care should be developed and made available, as well as evidence on good leadership and governance practices regarding the development, implementation, monitoring, and evaluation of comprehensive and integrated eye health. At every level, there remains a shortage of qualified human resources, which also needs to be addressed.

Mental, neurological, and substance abuse (MNS) disorders

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Mental, neurological, and substance use (MNS) disorders are common, highly disabling, and associated with significant premature mortality. The impact of these disorders on the social and economic well-being of individuals, families, and societies is large, growing, and underestimated.

They include common mental health conditions, severe mental disorders, and conditions common among children. Neurological disorders include epilepsy, dementias, stroke, migraine, and other headaches. Substance abuse disorders include the abuse of illegal and legal substances. Although suicide is not a mental health condition, between 60–98% of people who die from suicide have an underlying mental health condition, including alcohol and substance use disorders.[76]

MNS disorders are a huge and growing burden in the African Region. Besides the mental disorders common in high-income countries, impoverished living conditions and the high prevalence of HIV/AIDS are additional risk factors for mental disorders in the region. Six of the 10 countries with the highest number of suicides globally are in Africa.[77] Among neurological disorders, 75% of the global burden of epilepsy is found in low-income countries; in the African Region, the epilepsy treatment gap stands at 85%. A growing concern in the region is the number of young people, aged 15 to 24 years, who consume alcohol.

Mental health care for people living in sub-Saharan Africa is inefficient, inadequate, and inequitable. Due to high treatment costs, most people in sub-Saharan Africa are left with no choice but to live with untreated mental disorders or to visit traditional or religious leaders for treatment.[78]

Key achievements

- At least 66% of countries have guidelines for the integration of mental health into primary health care and 82% of countries are providing training for primary health care workers.
- Maternal mental health services are being strengthened in Kenya, Mozambique, and the United Republic of Tanzania.
- A framework to implement the Global Alcohol Action Plan is under development and will be presented to the Regional Committee in August 2023.
- Cape Verde, Kenya, Nigeria, Sao Tome and Principe, and Uganda were supported to develop alcohol policies or alcohol bills.
- Uganda is the first country to implement the WHO SAFER Initiative, a package of cost effective 'Best Buys' for alcohol harm reduction. A Global SAFER Initiative Secretariat was created with the engagement of the Ministry of Health of Uganda and a roadmap for the Implementation of the SAFER Initiative was developed. Catalytic funds are supporting the implementation of some of the prioritized activities.
- At least three countries, Algeria, Burundi, and Cameroon, established Mental Health and Psychosocial Support Technical Working Groups.
- WHO is providing support for mental health and psychosocial support activities in Ethiopia, including the secondment of a WHO technical officer, psychotropic medications, provision of Mental Health GAP Action Programme manuals and support for training, translation of Self Help Plus into three Ethiopian languages, and support for training in Self Help Plus.

Success story
WHO Special Initiative for Mental Health in Zimbabwe

WHO's Special Initiative for Mental Health aims to advance mental health policies and protect the rights of people living with mental health conditions worldwide. It aims to reach over 100 million more people with mental health care and recovery services.

In Zimbabwe, over 70% of the population live in poverty, and there are less than seven mental health workers per 100 000 population. The Ministry of Health and Child Care is working with WHO and partners to strengthen mental health services and expand Zimbabwe's mental health workforce, update old mental health laws, create services for children and young people, strengthen governance and leadership for mental health, and train community workers to provide mental health support, including those affected by violence, older people, and those at risk of suicide. The initiative aims to integrate mental health services in primary health and reach more people who need services for a stronger Zimbabwe.

Key achievements to date include:

- The national rollout of QualityRights in mental health training across multiple stakeholder groups. A WHO initiative, the goal of QualityRights is to change mindsets and practices in a sustainable way and empower all stakeholders to promote rights and recovery to improve the lives of people with psychosocial, intellectual, or cognitive disabilities everywhere.
- Increased investment in mental health through evidence-based advocacy.
- Expanded capacity of general health staff in primary health care facilities to identify, manage, and support people living with mental disorders.
- Included mental health conditions within the national Essential Health Care Package.

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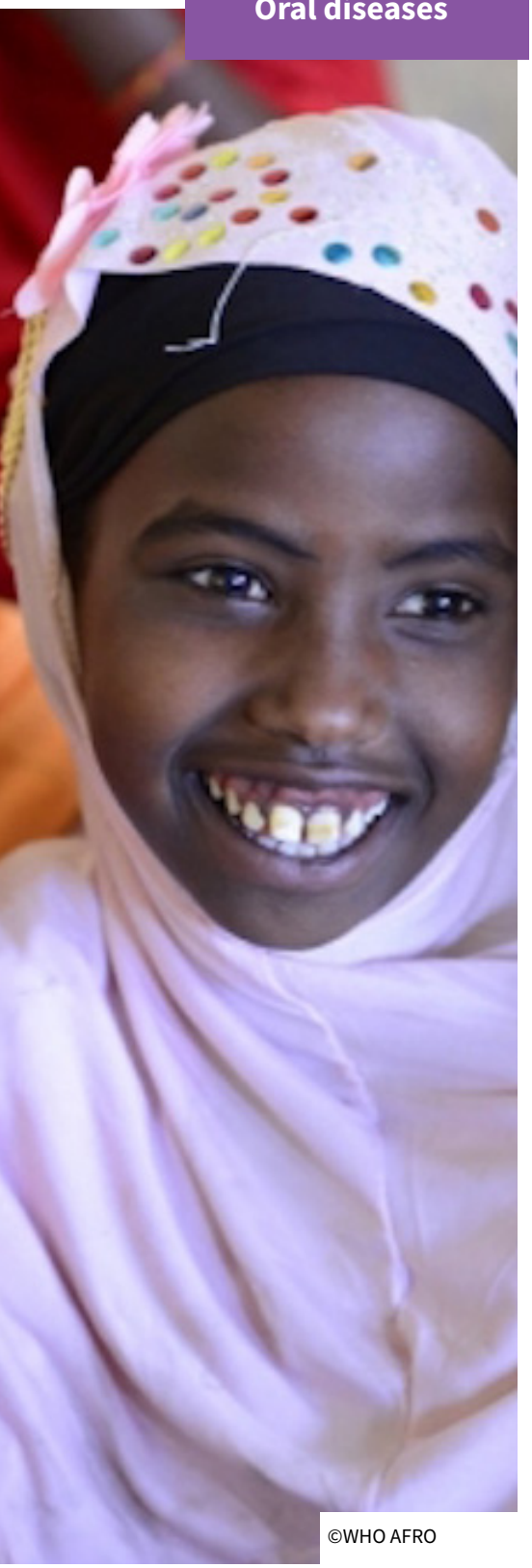
Challenges and priorities

African Region governments allocate on average US$ 0.46 per capita on mental health. A further challenge is that this amount is spent at tertiary level institutions in larger cities, with almost nothing spent at the primary and community levels, where most of the population live. While globally, 15% of patients pay out of pocket expenses for mental health services, this figure is 41% for the African Region, the highest in the world. The WHO Regional Office for Africa is working closely with ministries of health and other health authorities to encourage the inclusion of mental health in their health planning and the allocation of budget to mental health issues to improve the allocation of government expenditures for mental health.

The region has a shortage of mental health workers, with a median of 1.6 per 100 000 population, compared to 13 per 100 000 at the global level. A further challenge is that the majority of the mental health workers are nurses (0.9 per 100 000 population), with psychiatrists, psychologists, and social workers each being on average about 0.1 per 100 000 population. The number of mental health care workers for child and adolescent mental health are about 0.2 per 100 000 population in the African Region, the lowest worldwide.

Community mental health services are very weak, and a technical paper is to be prepared to identify which approaches would be best suited to the context of the African Region. Similarly, a scoping review on strengthening child and adolescent mental health services has been conducted to assist in the prioritization of country-appropriate strategies. A Strategy to Strengthen Mental Health and Psychosocial Support in the WHO African Region is also under development.

Oral diseases



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Oral diseases are among the most common NCDs, with high social, economic, and health system impacts. They affect people throughout the life course, causing pain, disfigurement, social isolation, distress and even death. Around half of the world's population suffers from major oral diseases such as dental caries, periodontal disease, and tooth loss, with no notable improvement recorded between 1990 and 2019, even though oral diseases are preventable.

In the African Region, around 480 million people suffered from major oral diseases in 2019. These diseases include dental caries, periodontal disease, oral cancer, orofacial trauma, oral manifestations of HIV infection, birth defects, and noma.[79] The estimated prevalence of severe periodontal diseases among adolescents and adults aged 15 years and over in the region was 23% in 2019 – the highest among the WHO six regions.[80]

Key achievements

According to the mid-term assessment of implementation of the regional oral health strategy conducted in 2021:[81]

- 38 countries in the African Region have an oral health unit in their Ministries of Health.
- 17 countries have at least one national oral health document.
- 28 countries are defining oral health services in essential healthcare packages.
- 31 countries have integrated oral health indicators into existing integrated surveillance systems.

Challenges and priorities

Despite the global and regional strategies, at the country level, oral health remains a lower priority, and this contributes to ongoing under-investment in oral health. Half of the countries in the region do not have oral health policies. More than 70% of countries spent less than US$ 1 per person per year on treatment costs for oral health care in 2019. In terms of human resources, only a limited number of trained oral health professionals are available. For example, the region had 3.3 dentists per 100 000 people between 2014 and 2019, which was around one-tenth of the global ratio.

In this context, by leveraging existing strategic guidance as well as advocacy opportunities, it is necessary to prioritize oral health as part of the NCD, primary health care, and universal health coverage agendas. This will include a paradigm shift from treatment-oriented oral health care into more prevention and promotion approaches to address oral health inequality; the integration of oral health into health systems, including task sharing of oral health care with other health professionals; and the mobilization and empowerment of communities to enable people to increase control over and improve their oral and general health.

Sickle cell disease

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Sickle cell disease is an inherited blood disorder that shortens the survival of red blood cells, causing anaemia. Poor blood oxygen levels and blood vessel blockages in people with sickle cell disease can cause extreme pain in the back, chest, hands, and feet as well as severe bacterial infections.

More than 66% of the 120 million people affected worldwide by sickle cell disease live in the African Region.[82] Approximately 1000 children are born with the disease every day in Africa, making it the most prevalent genetically acquired disease in the region. More than half of these children will die before they reach the age of five, usually from infection or severe anaemia.

In the African Region, 38 403 deaths from sickle cell disease were recorded in 2019, a 26% increase from 2000.[83] The burden of sickle cell disease stems from low investment in efforts to control the disease. Many public health facilities across the region lack the services for early detection and care for sickle cell disease, with inadequate personnel and a lack of services at lower-level health facilities hampering effective responses to the disease.

Key achievements

In 2022, African health ministers, with the support of WHO and key partners, launched a campaign to ramp up awareness, and bolster prevention and care to curb the toll of sickle cell disease in the region. The campaign also seeks to raise public awareness of the disease in schools, communities, health institutions, and the media and advocate stronger health systems to ensure quality and uninterrupted services and equitable access to medicines and innovative tools.

Box 16 Key achievements in the control of sickle cell disease

Adoption of the regional strategy to address severe NCDs at first-level referral health facilities, including sickle cell disease	Development of regional framework guidance for Centres of Excellence for sickle cell disease management	Ongoing development of a harmonised guide for the prevention and management of sickle cell disease

Challenges and priorities

A recent review of the implementation of the regional sickle cell disease strategy by Member States showed that its implementation has been uneven between countries. Simple, highly effective interventions, such as newborn screening, counselling, prophylaxis for infection, health maintenance, enrolment in comprehensive care, prompt treatment of crisis and stroke prevention, which have been shown to contribute to significant improvement in life expectancy in other regions, are not available to most patients in sub-Saharan Africa.

A priority for WHO is to support member states develop and scale up comprehensive national sickle cell disease prevention and control programmes including integration of prevention and care with maternal and child health, HIV, and other related public health programmes. The region is also prioritizing developing potential and capacity in the region for bone marrow transplant and gene therapy.

Case management neglected tropical diseases (CM-NTDs)

Buruli ulcer

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Buruli ulcer is a chronic debilitating disease that mainly affects the skin. The bacterium that causes Buruli ulcer belongs to the same family as those that cause tuberculosis and leprosy. It is still unclear how people get Buruli ulcer from the environment, and as such, there is no prevention for the disease. Key strategies and interventions to control Buruli ulcer include early detection and antibiotic treatment. Without early treatment, Buruli ulcer can lead to long-term disabilities.

At least 33 countries in Africa, the Americas, Asia, and the Western Pacific with tropical, subtropical, and temperate climates have reported Buruli ulcer (see Figure 24). The annual number of new Buruli ulcer cases stabilised after 2005, at around 5000 cases globally, before decreasing from 2010 onwards. Since 2016, the number of cases has risen again every year, apart from in 2020 and 2021.[84] However, reductions seen in these years could be linked to the impact of COVID-19 on active case detection activities.

Figure 25 clearly demonstrates the disproportionate burden of cases in the African Region – averaging at 94% of global cases between 2002 and 2021.

Figure 24. Map of Buruli ulcer endemicity, WHO African Region, 2021

Source: Buruli ulcer. In: WHO Global Health Observatory [online database]. Geneva: World Health Organization; 2021 (https://www.who.int/data/gho/data/themes/topics/buruli-ulcer, accessed 9 June 2023).

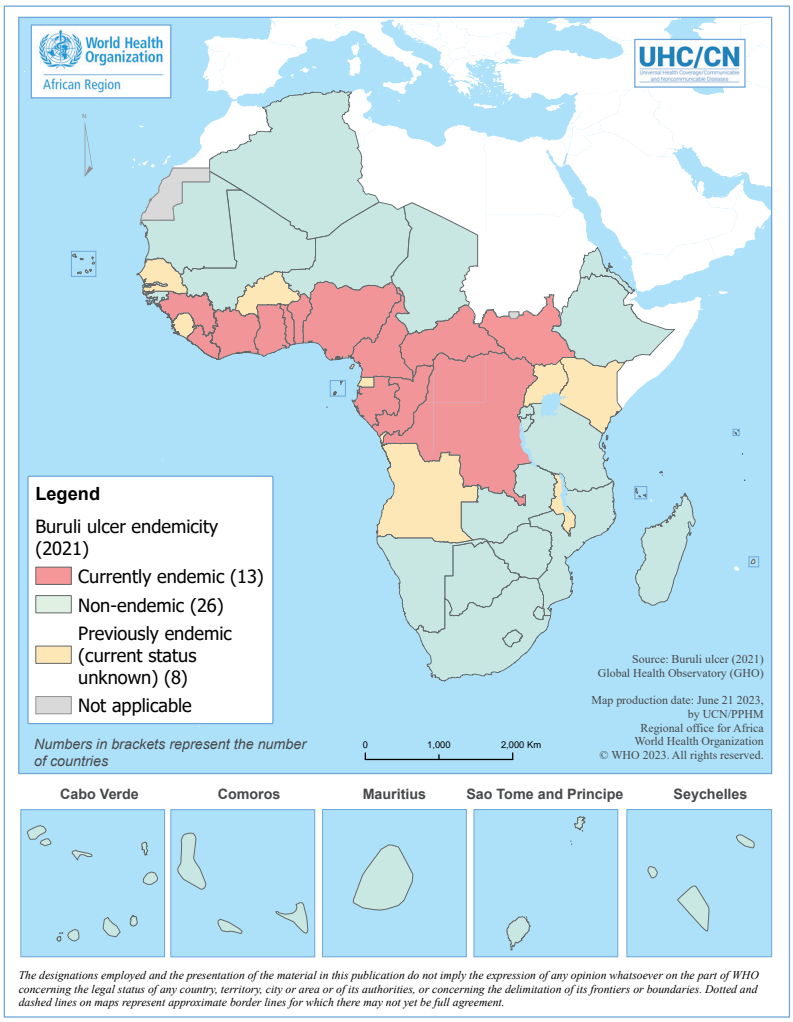
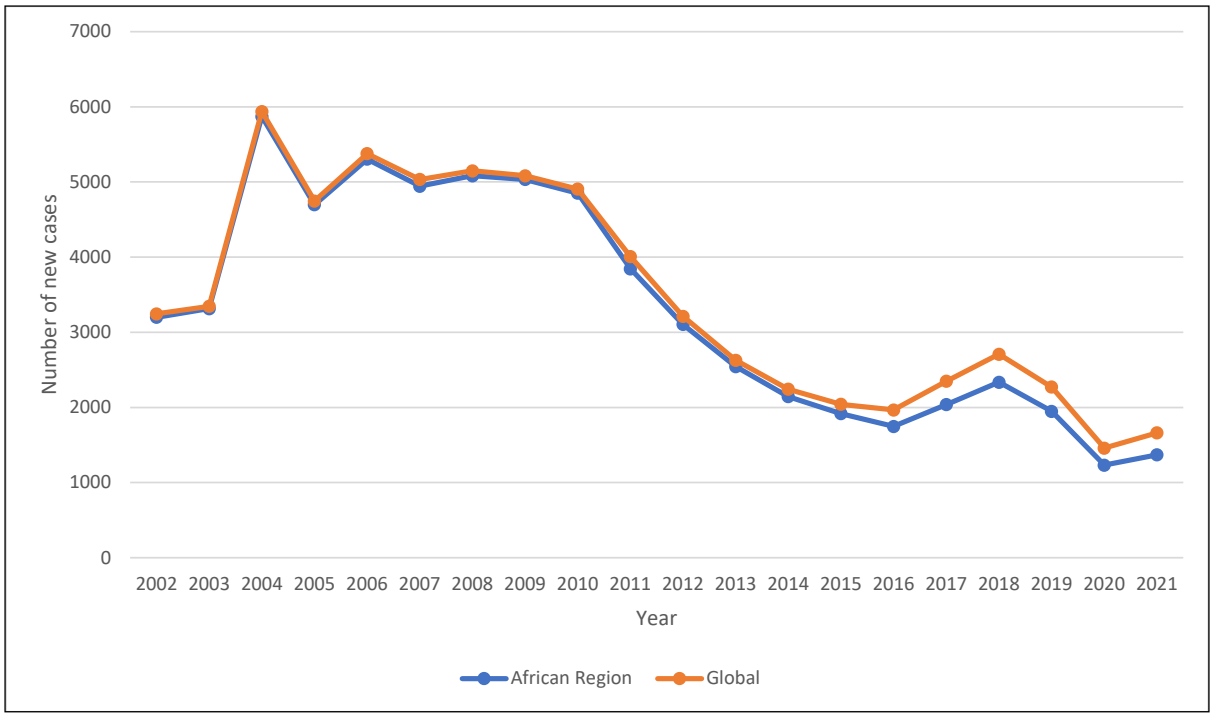


Figure 25. Number of new cases of Buruli ulcer reported each year, WHO African Region and Globally, 2002–2021



Source: Buruli ulcer. In: WHO Global Health Observatory [online database]. Geneva: World Health Organization; 2021 (https://www.who.int/data/gho/data/indicators/indicator-details/GHO/number-of-new-reported-cases-of-buruli-ulcer, accessed 9 June 2023).

Key achievements

Overall, the number of Buruli ulcer cases reported in the region fell from 4850 cases in 2010 to 1370 in 2021, a 71% decrease.[85] Regarding laboratory and diagnostics, WHO has established a Buruli ulcer Laboratory Network for Africa, including all the laboratories in endemic countries doing PCR testing to ensure standardization and quality. Virtual Africa Buruli ulcer LabNet meetings have been held and capacity built for laboratory staff in Central African Republic and Congo, and work is ongoing to develop point-of-care diagnostics. A target product profile for a diagnostic test to be employed at the primary health care level has been published. Newly developed rapid diagnostic tools are being evaluated in Côte d'Ivoire for use in public health and community centres to ensure early diagnosis and to confirm cases.

As part of service integration, integrated surveillance (active case-finding) of skin-related NTDs is being promoted in endemic countries, and WHO is supporting countries to build the capacity of health workers and community health workers to detect and treat Buruli ulcer cases and other skin-related NTDs. An online training course for national and district-level health workers on skin-related NTDs was published, and training is being conducted to strengthen web-based surveillance and reporting in several countries.

Ongoing research in the region includes studies on effective antibiotic treatments for the disease, and studies to reduce the duration of current treatment from eight to four weeks.

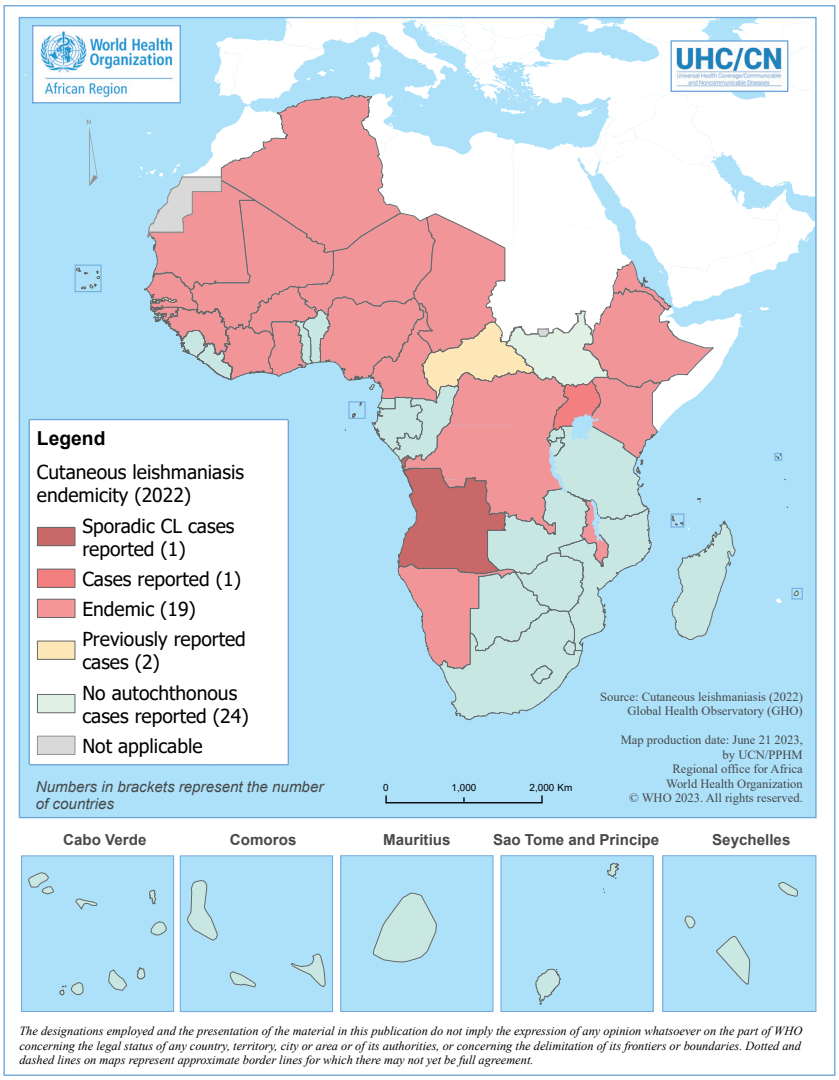
Challenges and priorities

The insufficient funding for implementation of control activities is being addressed in part through the integration of skin NTD interventions, however inadequate resourcing remains a significant challenge. Other major challenges include the lack of point-of-care diagnostic tests, weak surveillance systems in some countries, and the long duration of the treatment (eight weeks). The potential emergence of drug resistance is being actively monitored.

Cutaneous leishmaniases

In 2021, over 9700 new cases of cutaneous leishmaniases were reported from the 11 countries that reported in the African Region (Algeria, Burkina Faso, Cameroon, Chad, Ethiopia, Ghana, Guinea, Kenya, Niger, Nigeria, and Senegal), with 77% of cases from Algeria – an eco-epidemiological 'hotspot' (see Figure 26).[86]

Figure 26. Map of endemicity of cutaneous leishmaniasis, WHO African Region, 2022



Source: Status of endemicity of cutaneous leishmaniasis. In: WHO Global Health Observatory [online database]. Geneva: World Health Organization; 2022 (https://www.who.int/data/gho/data/indicators/indicator-details/GHO/status-of-endemicity-of-cutaneous-leishmaniasis, accessed 8 June 2023).

Key achievements

Cutaneous leishmaniasis is included in National NTD Master Plans for most of the endemic countries in the region – an important advocacy tool for the sustainable implementation of control interventions aligned with the Strategic framework for integrated control and management of skin-related neglected tropical diseases. Integrated skin NTD interventions conducted in cutaneous leishmaniasis endemic countries contributed to improve case detection and strengthen disease surveillance in Cameroon, Chad, Ethiopia, and Ghana. This integrated approach contributed to significant improvement in case detection and treatment in Chad with a five-fold increase in the number of reported cases between 2020 and 2021, and a 30-fold increase between 2020 and 2022.[87]

Two endemic countries in the African Region, Ethiopia and Senegal, were supported in the development and implementation of diagnosis and treatment guidelines for the control of leishmaniasis.

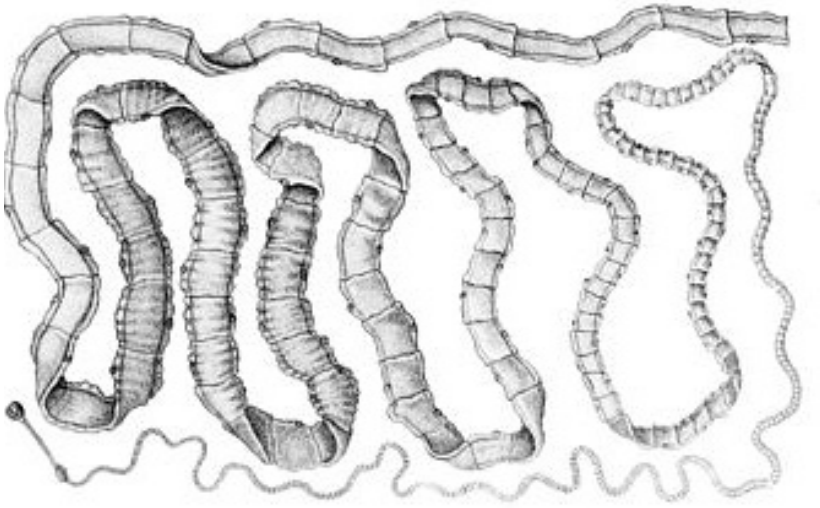
Challenges and priorities

Challenges for cutaneous leishmaniasis include lack of access to services due to inadequate ownership of the programme, lack of funding and limited or no partner to support control interventions, and lack of point of care diagnostics and effective treatment. Proposed solutions include the establishment of a strong control strategy that begins with disease burden assessments in endemic countries; strengthens surveillance systems; improves access to diagnosis and treatment under the integrated skin NTD framework; supports research and development for better diagnostic tools and effective treatment; and strengthens strategies for vector control and reservoir control in areas with zoonotic transmission.

Taeniasis

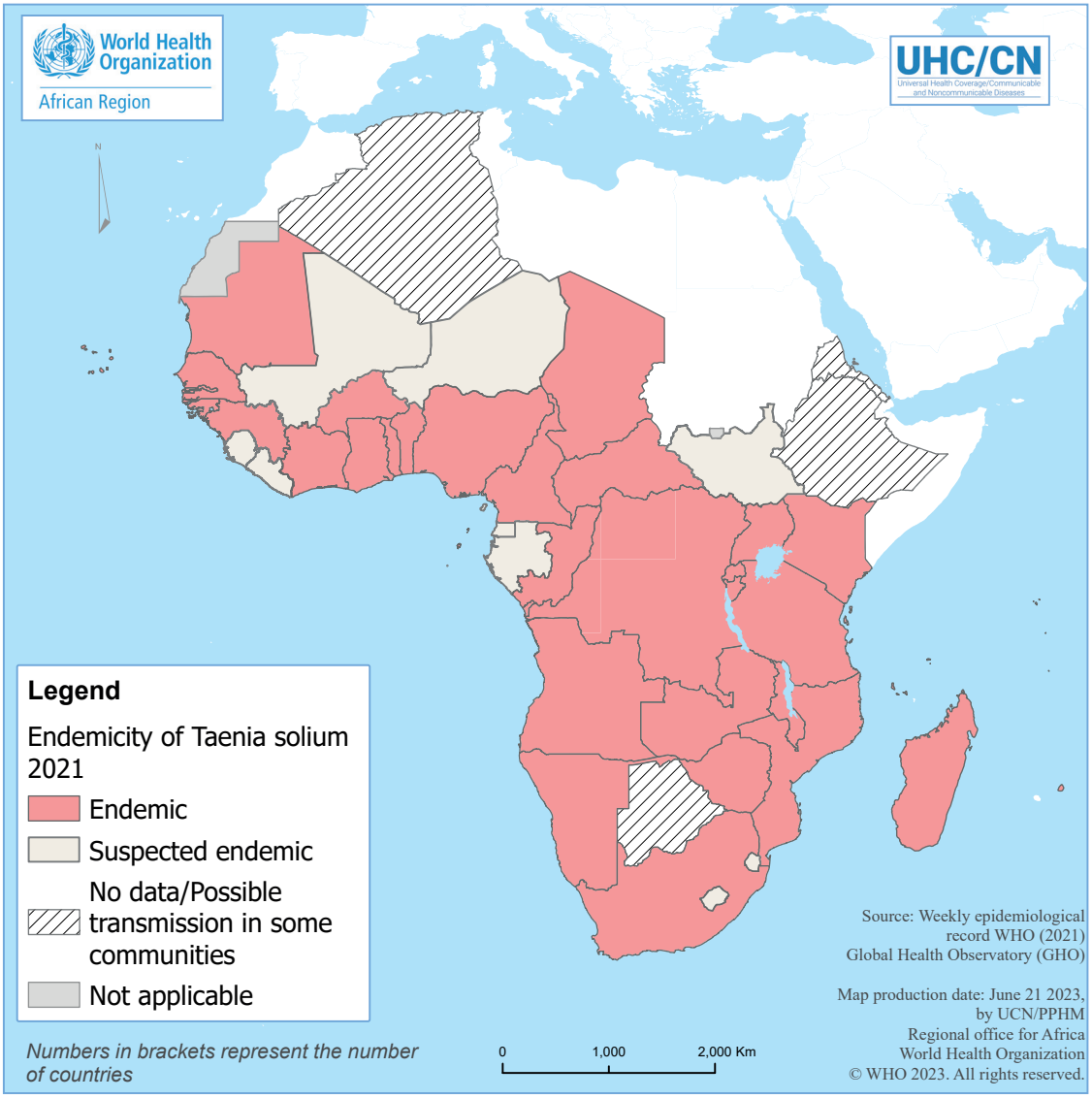
Taeniasis is an intestinal infection caused by three species of tapeworm. While it is generally asymptomatic, ingested eggs of the tapeworm develop into larvae (called cysticerci) in various organs of the human body. When they enter the central nervous system, they can cause neurological symptoms, including epileptic seizures. One of the tapeworms causing taeniasis (*Taenia solium*) is the cause of 30% of epilepsy cases in many endemic areas. In high-risk communities it can be associated with as many as 70% of epilepsy cases.[88] Epilepsy in vulnerable populations is difficult to treat and causes stigma, affecting people's lives and livelihoods.

Taenia solium is prevalent in 27 countries in the African region and suspected in another 11 (see Figure 27).



Taenia solium adult © Photo Wikipedia

Figure 27. Map of endemicity of *Taenia solium*, 2021



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Key achievements

The distribution of drugs for preventive chemotherapy has started in Zambia. Mass drug administration was conducted in Madagascar in 2022 and will continue in 2023 with WHO support. Laboratory managers from endemic countries were trained during 2022 at the WHO Collaborating Centre on NTDs in Pemba, United Republic of Tanzania. The training was part of preparations for One Health mapping of PC-NTDs, of which Cameroon and the United Republic of Tanzania have since finalised their mapping protocols.

WHO is also facilitating the donation of drugs for the control of taeniasis, promoting WASH and supporting One Health control projects.

Challenges and priorities

When co-endemic, taeniasis impacts the success of treatment for schistosomiasis, as patients require different dosing and there is an increased risk of adverse events. WHO is launching tools to assist with the control of taeniasis and cysticercosis, including a mapping tool to assist with the identification of high-risk areas, guidelines for preventive chemotherapy for the control of taeniasis, and guidelines for the clinical management of neurocysticercosis.

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Looking ahead: priorities in disease eradication, elimination, and control

While the African Region carries a high burden of disease, there has been real progress in disease eradication, elimination, and control since 2015. Examples include the eradication of wild polio in 2020, eradication of Guinea worm disease in Kenya in 2018, human African trypanosomiasis elimination in Togo in 2022, and certification of trachoma elimination in the Gambia, Ghana, Malawi, and Togo in 2022. Thanks in part to impressive gains in immunization coverage, considerable progress has been made among vaccine-preventable diseases targeted for elimination. New HIV infections reduced by 44% in 2021 compared to 2010, and in 2021, the African Region passed the 2020 milestone of the End TB Strategy, with a 22% reduction in new infections compared with 2015.

Despite these notable improvements in health, success has been uneven across disease prevention and control programs, and within and between countries. Recurring outbreaks, disasters, and humanitarian emergencies, some exacerbated by climate and environmental changes, have a cascading negative impact on the resilience of health systems and the communities they serve. The impact of the COVID-19 pandemic is central to all discussions on moving forward in disease control in the region. The pandemic threatened decades of progress in health globally, including positive trends in decreasing inequality. In 2020, the pandemic disrupted essential health services in 92% of countries worldwide, 22.7 million children missed basic immunization, there was an increase in malaria cases, and global deaths from TB rose for the first time since 2015. The African Region was no exception, with momentum towards achieving the 2030 SDG disease burden reduction targets stalling.

A WHO analysis of 14 countries in the African Region found that hypertension, diabetes, cardiovascular disease, and asthma were the co-morbidities most often associated with COVID-19 patients. These

data and similar research into the associations between communicable and noncommunicable diseases, and the risks posed by chronic diseases to the development and severity of infectious diseases, highlight the need for a convergence in the approach to disease prevention and control programs.

These threats, and the long experience of responding to major disease outbreaks and emergencies in the region, have provided us with important lessons as we get back on track to accelerate progress towards achieving universal health coverage and the sustainable development goals. This requires a shift in mindset and a new way of working. The WHO Regional Office for Africa, as the lead UN health agency in the region, has accordingly initiated a change in its organizational structure, in alignment with the General Programme of Work 2019–2030 and the Transformation Agenda of the WHO Secretariat in the African Region 2015–2020.

The UCN Cluster was established in 2019 to better integrate disease prevention and control programmes within a health systems strengthening framework using a data-centric, results focused, and integrated cluster management approach. Core success factors of the COVID-19 pandemic response have informed four UCN Special Initiatives – governance and system capacity, institutional capacity, data science capacity, and research and innovation capacity.

Going forward, the UCN Cluster will be guided by these four carefully curated priority areas as it strengthens support for Member States towards more robust pandemic preparedness, leveraging interventions such as surge missions and specialist hubs. There will also be a renewed focus on building more resilient health systems, boosting health promotion and prevention, and improving health care delivery and access to services, through an emphasis on primary health care. The cluster, recognizing the challenges in this diverse and rapidly changing region, is committed to respond strategically and operationally, informed by an evidence-based approach to decision making.

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