






**Public health situation analysis
Myanmar
Last update: August 2023**

Type of emergency	Main health threats	WHO grade	INFORM Index (June 2023)	UN Security Level	
				Location	Level
 Displacement  Epidemics  Food security  Conflict  Humanitarian access	<ul style="list-style-type: none"> Epidemics Vector-borne diseases Vaccine-preventable outbreaks HIV/TB Disaster NCD/mental health Sexual and reproductive health Malnutrition/child health 	Grade 2: Humanitarian crisis in Myanmar Protracted 2: Conflict/ civil strife in Rakhine, Kachin and Northern Shan Last grading call: 18 November 2022 Grade 2: Cyclone Mocha response Last grading call: 19 May 2023	Multiple crisis: Very high 4.6 /5 (↑ from last update) Cyclone Mocha: Medium 2.8 /5	Chin State, Sagaing Region, Magwe Region, Mandalay Region and Nay Pyi Taw	5
				Shan State	4
				Kachin State	4
				Mon, Kayin and Kayah States, and Tanintharyi Division	4
				Rakhine State	4
Yangon, Bago and Ayerwaddy	4				
				UNDSS/travel advisory/security information (consulted in June 2023)	

1. Summary of crisis

It has been two-and-a-half years since the Myanmar military staged a takeover and established themselves in power, officially as the State Administration Council (SAC). The country has since been in a state of emergency, extended again for six months on 31 July 2023. Mass protests against the armed forces started immediately after the takeover, with a wider, peaceful civil disobedience movement, including the health sector.

The protest grew into organized armed resistance with escalation in fighting across the country. This resulted in massive displacement across Myanmar and an unprecedented political, socioeconomic, human rights and humanitarian crisis for the population. The Emergency Relief Coordinator activated the countrywide health, water, sanitation and hygiene (WASH), shelter/non-food items (NFI), education, food security, nutrition and protection clusters on 21 August 2021.

Twenty-five million people are estimated to be living in poverty because of the political situation and the legacy of the COVID-19 pandemic. We see a reversal of many of the development gains made in the 2010s and early 2020s. The conflict continues, escalating across multiple states and regions in Myanmar, particularly in the North-west and the South-east, leaving people displaced and in severe humanitarian needs, with no signs of abating.

The countrywide humanitarian crisis occurred against a backdrop of long-standing communal conflicts in Rakhine, Kachin and Northern Shan, which had prompted the Emergency Relief Coordinator to activate the health, WASH and shelter/NFI clusters on 15 January 2013 in Rakhine and Kachin. The protracted emergency between Rakhine ethnic groups and self-identified Rohingya populations commenced in June 2012, with acute exacerbation in October 2016 and August 2017. The protracted emergency due to communal conflicts between the Myanmar Military and ethnic armed organizations in Kachin had recurred between mid-2011 and mid-2018, following a 17-year ceasefire. While there were fewer incidents of armed clashes after 2018, these recurred following the 2021 military takeover and continued in 2022 and 2023. The protracted emergency due to communal conflicts between the Myanmar Military and ethnic armed organizations started in Northern Shan in mid-2011, and resulted in massive internal displacements in September 2019, and following the military takeover in June 2021 and December 2022. Forced military recruitment remains a major concern in Northern Shan.

Already in dire need of humanitarian assistance, an estimated 1.6 million people across five states and regions of Myanmar bore the brunt of the extremely severe Cyclone Mocha, which crossed the coast near Sittwe in Rakhine

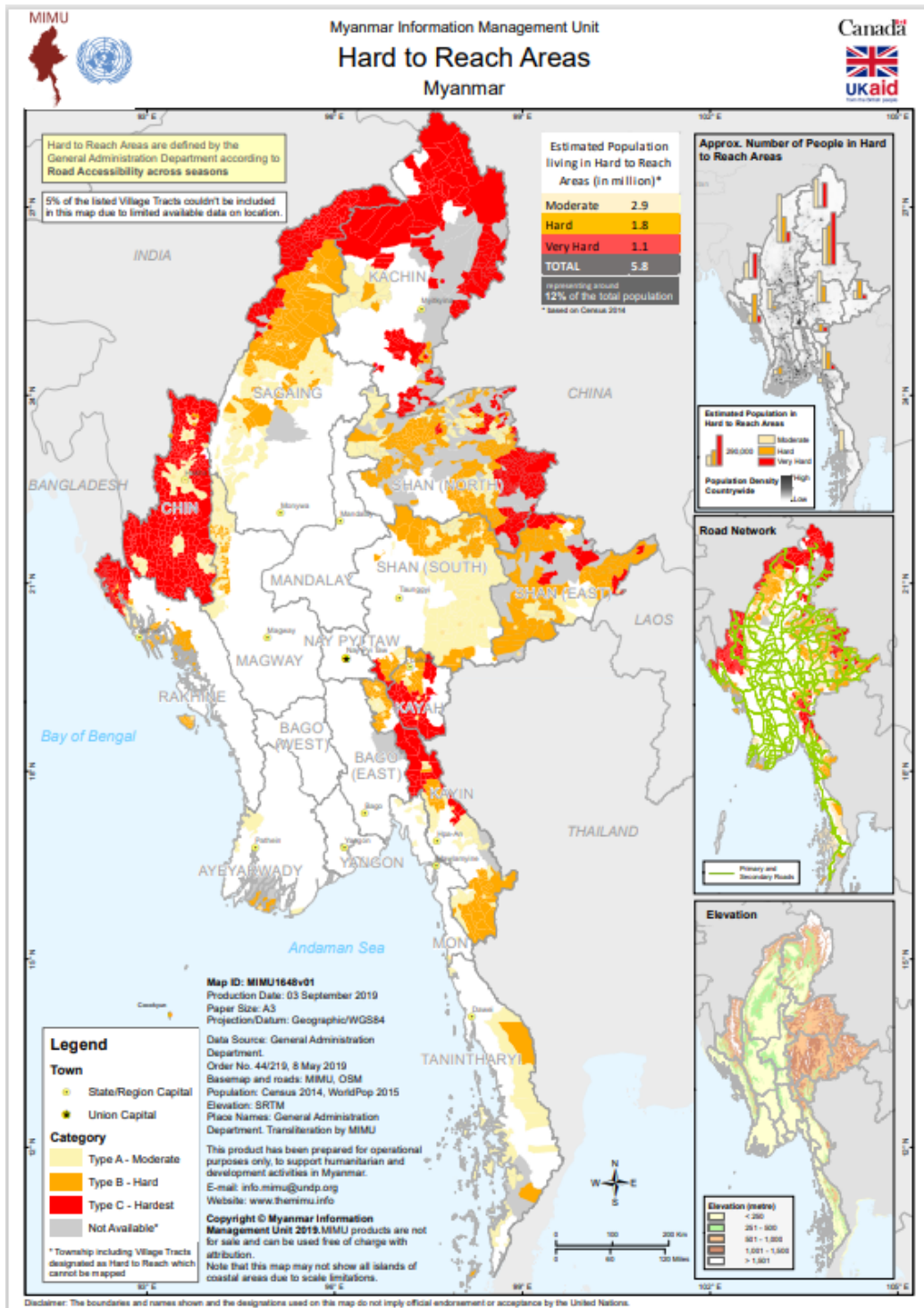
at mid-day on 14 May 2023. With winds reaching 190–250 km/hour, Mocha was one of the fiercest cyclones the country had ever faced. It brought heavy rains, floods, winds and tidal surge, reaching 5–7 feet, across the coast and low-lying areas in Rakhine. It continued further inland, affecting Chin, Magway, Sagaing and Kachin. The latest field observations show that at least 52 townships have been affected across Rakhine, Chin, Magway, Sagaing and Kachin; 135 467 houses, 1452 schools, 315 health facilities and 75 297 latrines have been impacted on the sites of observations. Of the 315 health facilities affected, 151 were situated in villages and 52 at internally displaced persons (IDP) camp/site clinics.

Myanmar occupies the highest rank in the INFORM Risk Index for hazard and exposure, scoring 9.2/10. The country scores 10/10 for hazards and exposure to human conflict, and has a vulnerability score of 5.5/10, with development, deprivation and inequality being the gravest concerns. It has a score of 6.1/10 for lack of coping capacity, which is largely institutional. The country ranks 16th on the INFORM risk list because of high hazard and exposure, vulnerability and lack of coping capacity (ACAPS, 2023).

While the economic condition in the country has stabilized in the first half of 2023, with most indicators suggesting slowly increasing economic activity, the Myanmar economy is still operating well below pre-pandemic levels, in sharp contrast to the rest of the WHO South-East Asia Region. Several factors are constraining the pace of recovery: household incomes remain weak, limiting the ability of domestic demand to drive growth; high prices and shortages resulting from import restrictions make it difficult for many businesses to source essential inputs; power outages have become prominent; and investment remains weak, with new business registrations at a low level. Overall, GDP is projected to increase by 3% by September 2023, still around 10% lower than that in 2019. The absence of a more pronounced rebound is indicative of the severe supply and demand constraints that continue to limit economic activity (World Bank, 2023). Further information about the political, socioeconomic and security context in Myanmar can be found in the Myanmar Humanitarian Need Overview (HNO) 2023-
<https://data.unhcr.org/en/documents/details/90298>

Finally, Myanmar presents unique geographical conditions with 2.9 million people living in 49 townships that are defined as hard-to-reach and hardest-to-reach, according to road accessibility across seasons. Particularly since February 2021, these townships, associated with the conflict-affected ones, are facing large disparities in terms of access to health care, delivery of medicines and medical devices, and referrals to specialized care.

Fig. 1. Hard-to-reach areas, Myanmar, 2019



Source: Myanmar Information Management Unit, 2019, [Map Hard To Reach Area MIMU1648v01_03sep2019_A3 | PDF | Myanmar | Geographical Technology \(scribd.com\)](#)

2. Humanitarian profile

Across the country, an estimated 17.6 million people are in humanitarian need, including 4.5 million people with severe needs, mainly in rural conflict-affected areas (OCHA, 2023). The crisis has spread in such a way that the entire population of 56 million people is now facing some level of need. Compared with other regions, Sagaing has had the sharpest increase in the number of people in need of humanitarian assistance in 2023, with the number reaching 2.6 million as of January 2023.

POPULATION IN NEED OF HUMANITARIAN ASSISTANCE (OCHA, 2023)					
17.6 million	4.5 million	1.6 million	183 000	447 000	2.3 million
People in need of humanitarian assistance	People, with severe humanitarian needs, targeted	Internally displaced people (IDP)	Returns, resettled and locally integrated IDP	Non-displaced stateless people	Other crisis-affected people with humanitarian needs

The number of people in need of humanitarian health assistance is estimated at 10 million in 2023, four times more than that in 2022.

POPULATION IN NEED OF HUMANITARIAN HEALTH ASSISTANCE (OCHA, 2023)					
10.0 million	2.3 million	403 000	29 000	36 000	1.8 million
People in need of humanitarian health assistance	People targeted	Internally displaced people	Returns, resettled and locally integrated IDP	Non-displaced stateless people	Other crisis-affected people with humanitarian needs

While the Myanmar government has declared 21 townships (17 in Rakhine and 4 in Chin) as natural disaster-affected regions under the Natural Disaster Law (Section 11), the United Nations (UN) Office for the Coordination of Humanitarian Affairs (OCHA) targeted 1.6 million people in 43 townships, affected by Cyclone Mocha, across five states and regions, namely Rakhine, Chin, Magway, Sagaing and Kachin, based on the criteria of experiencing winds >120 km/hour and of vulnerability.

3.4 million	1.1M	+	500 000	=	1.6 million
People living in the highest-impact zone ¹	People already targeted under 2023 HRP		New/additional caseload		Total people targeted for Cyclone Mocha

¹ Total number of people in more than 120 km/hour wind speed zones.

The health cluster, in particular, targeted 429 000 people in need of assistance across the five state and regions – Rakhine, Chin, Magway, Sagaing and Kachin – among the distanced, returned, stateless and crisis-affected people, of whom 252 000 were already targeted under the Humanitarian Response Plan (HRP), 2023 and 177 000 were part of the new/additional caseload (<https://reliefweb.int/report/myanmar/myanmar-cyclone-mocha-flash-appeal-may-2023>).

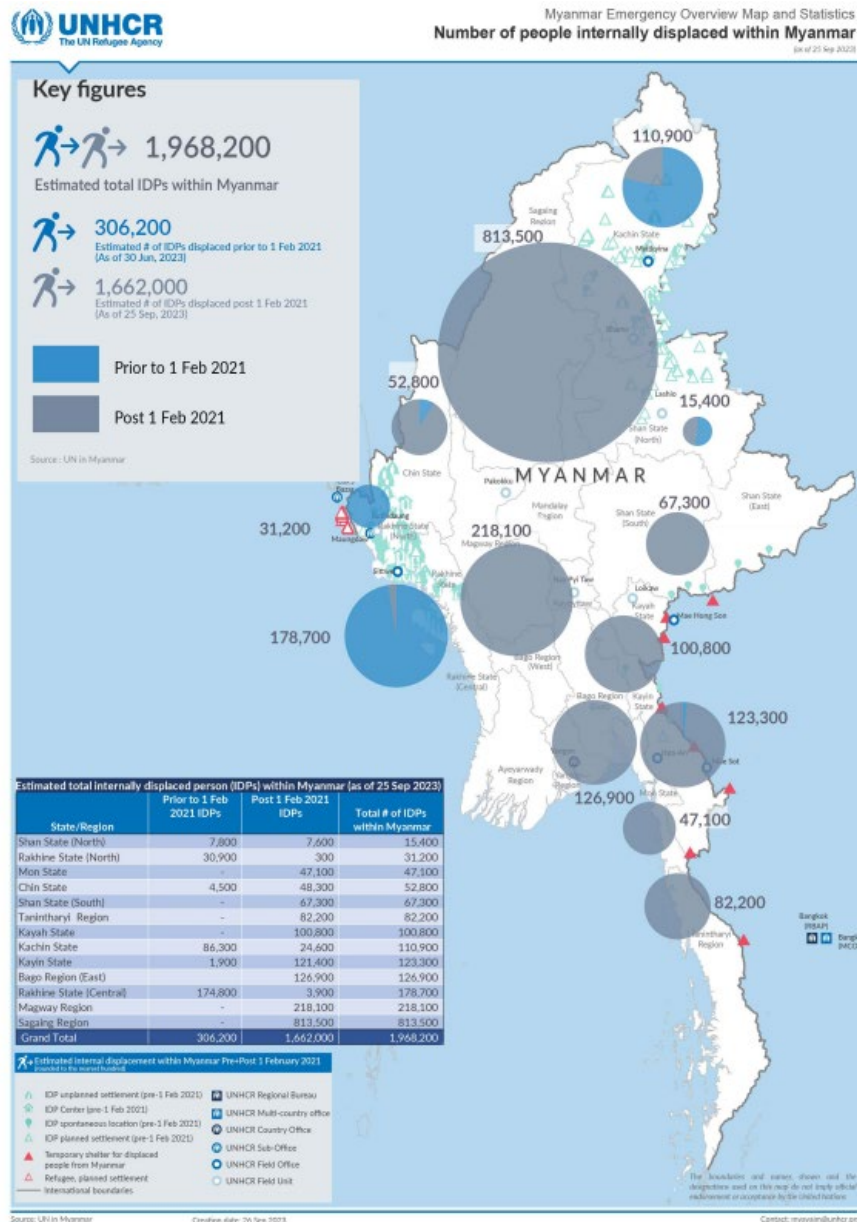
Number of people internally displaced in Myanmar (<https://data.unhcr.org/en/documents/details/103734>)

More than 1.95 million people have been internally displaced as of 18 September 2023, of whom 1.651 million have been displaced since the military takeover on 1 February 2021 (<https://data.unhcr.org/en/documents/details/103734>). The Humanitarian Need Overview 2023 has projected anticipated displacement of 2.7 million people by the end of 2023 (OCHA, 2023).

Since September 2022, the de facto authorities have been instructing the closure of the 173 “official” IDP camps, home to more than 320 000 people in Kachin, Rakhine and Shan, under the National Strategy for Resettlement and Closure of IDP Camps. While people have received the return packages from the authorities and have been removed from the IDP list, most have not returned to their villages of origin due to various concerns, including lack

of livelihood opportunities and security issues, relating to unexploded ordnances (UXOs). The “top-down” measure is taken with limited consultations and concerns, including those about lack of livelihood and security, and with no meaningful progress in movement and access to services.

Fig. 2. Number of people internally displaced, Myanmar, 25 September 2023



Source: UNHCR; number of people internally displaced, 10 July 2023
<https://data.unhcr.org/en/documents/details/103734>

3. Health status and threats

Population mortality

- Maternal mortality ratio, 2020: 179 per 100 000 live births (Trends in Maternal Mortality 2000–2020, 2023 Report)
- Under-five mortality rate (U5MR), 2021: 42 deaths per 1000 live births (Levels and Trends in Child Mortality: 2022 Report, United Nations Inter-Agency Group for Child Mortality Estimation)
- Infant mortality rate (IMR), 2021: 34 per 1000 live births (Levels and Trends in Child Mortality: 2022 Report, United Nations Inter-Agency Group for Child Mortality Estimation)
- Neonatal mortality rate (NMR), 2021: 22 per 1000 live births (Levels and Trends in Child Mortality: 2022 Report, United Nations Inter-Agency Group for Child Mortality Estimation)
- Stillbirth rate, 2021: 14.5 per 1000 births (*Never forgotten: The situation of stillbirth around the globe*, Report of the United Nations Inter-Agency Group for Child Mortality Estimation, 2022)
- As of 2019, the top 10 causes of mortality were stroke, ischemic heart disease, chronic obstructive pulmonary disorder, diabetes, lower respiratory tract infection, cirrhosis, neonatal disorders, tuberculosis (TB), chronic kidney diseases, asthma, diarrhoeal diseases and HIV/AIDS (Global Burden of Disease Study, 2019).
- Nearly three fourths of all deaths in 2016–2017, as per the national causes of death survey, were attributable to noncommunicable diseases (NCDs), whereas only one fifth were attributable to maternal, nutritional, neonatal causes (MoHS, Myanmar Health Statistics, 2020).
- Among deaths due to communicable diseases, the leading cause is pneumonia, followed by TB, HIV/AIDS and malaria (MoHS, Myanmar Health Statistics, 2020).
- Among deaths due to NCDs, the leading cause is stroke, followed by chronic respiratory diseases, ischemic heart diseases, cirrhosis, diabetes (MoHS, Myanmar Health Statistics 2020).
- Injuries are a leading cause of morbidity and mortality, with an increasing trend: from about 370 000 to 460 000 injuries and from 11 300 to 15 300 deaths, reported in 2016 and 2019 respectively; 80% of injuries were attributable to vehicle accidents (45%–51%), accidents on farm (16%–25%) and fighting (12%–14%). Sagaing, Mandalay, Bago and Ayeyarwady were reporting the number of injuries (MoHS, Myanmar Health Statistics, 2020).
- As of 14 April 2023, the country had reported more than 34 400 casualties and 18 300 incidents of political violence since February 2021. Of the incidents of political violence, 4 200 involved violence against civilians and 7100 involved explosions and remote violence, such as air strikes. Between February 2021 and January 2023, there were at least 600 reported incidents of air strikes. The air strikes and clashes have damaged schools, health facilities, sites of religious significance, civilians' homes and other infrastructure (ACAPS, 2023).
- As of August 2023, more than 4 000 people are reported to have been killed due to the ongoing conflict since February 2021 (AAPP, 2023).
- As of August 2023, 385 attacks on health care have been documented since February 2021 via the WHO Surveillance System for Attacks on Health Care (SSA), leading to 58 deaths and 188 injuries (WHO, 2023).

Vaccination coverage

The Myanmar Vaccination Programme is providing 13 antigens, free of cost, through a wide network of vaccine delivery points across the country. These include the Japanese encephalitis vaccine, introduced in 2017, and the rotavirus and human papillomavirus (HPV) vaccines, introduced in 2020. The gains witnessed in 2016–2019 were, however, reversed by the COVID-19 pandemic and the political instability since February 2021. As a result, EPI coverage dropped below 50% or more for many vaccination types in 2021, including those pertaining to BCG (48.2%), DTPCV1 (44.9%), HepB3 (37.2%), MCV1 (43.9%), MCV2 (42.2%) and IPV1 (45.8%) [WHO/UNICEF Estimates of National Immunization Coverage, 2021], thereby increasing the risk of outbreaks of vaccine-preventable diseases (VPDs), such as measles, diphtheria and polio.

The trend got reversed in 2022 (Fig. 2); however, it did not reach pre-pandemic levels. The Penta/DPT3 coverage

improved from 37% in 2021 to 71% in 2022. Almost five million children are missing out on vitamin A supplements. The situation has increased the vulnerability of VPD outbreaks. Myanmar was able to vaccinate more than 186 000 zero-dose children, who missed the vaccination in 2021. 'Catch up under two years' campaigns were conducted in some states and regions.

\With the reference from the WHO position paper, NITAG recommendations and commitment from GAVI, promotion of single dose regimen of HPV catch -up vaccination was targeted for the eligible girls with un-met MAC of year 2021, 2022 and the new cohort of 2023. National roll-out was carried out in August 2023 via school-phase and community-phase approach. For the upcoming years, vaccination of 9-year-old cohort will be provided and incorporated with RI schedule.

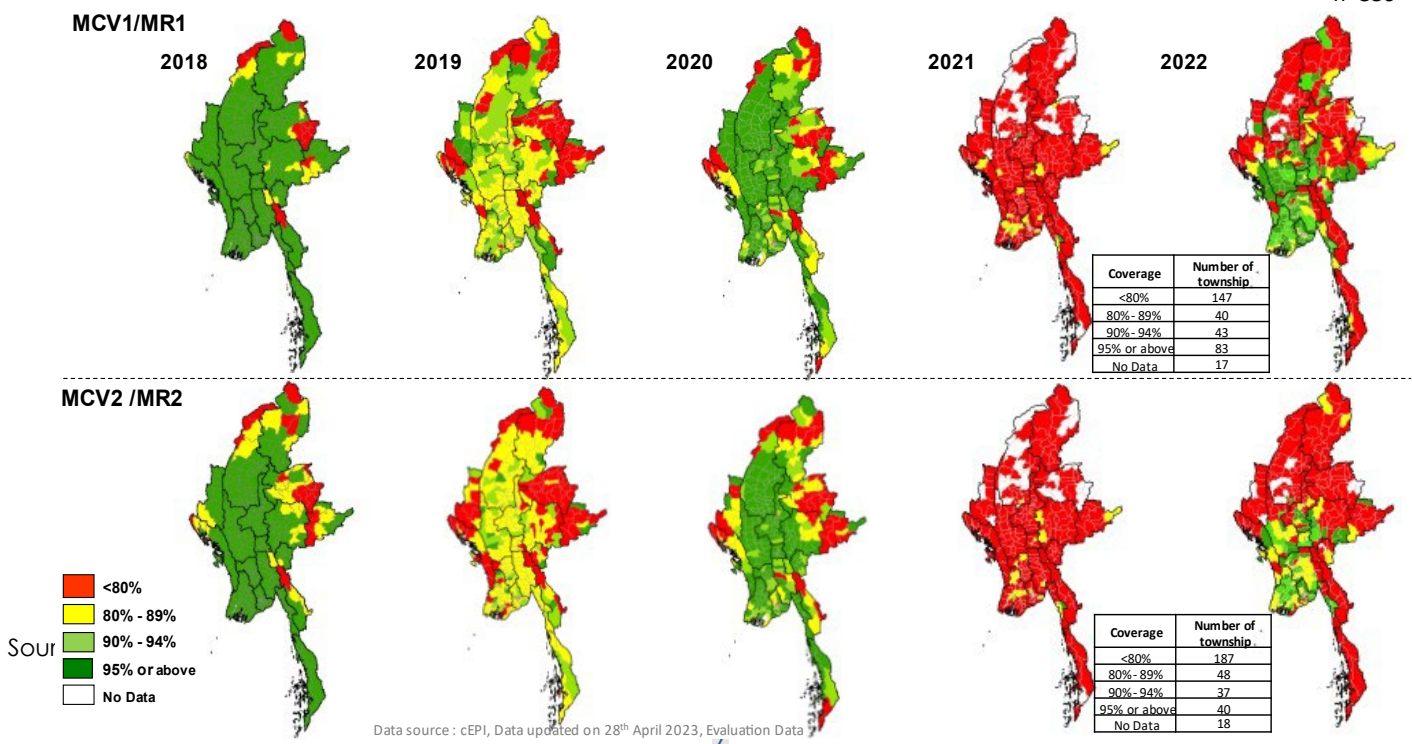
There are challenges with regard to assessing the vaccination coverage as there has been no nationally representative household survey over the past five years. WHO is aware of an ongoing Demographic and Health Survey 2023; the final results are awaited.

Table 1. The WHO and United Nations Children’s Fund (UNICEF) estimates of immunization coverage as a percentage: 2022 revision, Myanmar, 2018–2022

Vaccine	2018	2019	2020	2021	2022
BCG	90	91	87	48	79
DTP1	95	93	87	45	81
DTP3	91	90	84	37	71
Pol3	91	90	86	43	75
IPV1	82	90	86	46	71
MCV1	93	84	91	44	75
MCV2	87	80	90	42	64
HepBB	7	17	21	6	8

Source : <https://data.unicef.org/wp-content/uploads/cp/immunisation/mmr.pdf>

Fig. 3. Geographical distribution of routine measles coverage in 330 townships, Myanmar, 2018–2022



Key risks in the coming months (2)				
	2023 (Jul.–Sep.)	2023 (Oct.–Dec.)	2024 (Jan.–Jun.)	Rationale
COVID-19				<ul style="list-style-type: none"> Decreasing trend in COVID-19 deaths and COVID-19-related hospitalizations Circulating variants, which do not appear to be associated with increased severity High levels of population immunity to SARS-CoV-2 infection, vaccination or both
mpox				<ul style="list-style-type: none"> No case reported in Myanmar yet Local transmission is likely to be ongoing in the Region, especially in Thailand, with a moderate risk of imported cases Majority of cases reported in Thailand in 2023, among men who have sex with men (MSM) Limited surveillance, health-care systems and access to countermeasures (treatment, vaccine)
VPD outbreaks	(e.g. measles, polio, diphtheria)	(e.g. measles, polio, diphtheria)	(e.g. measles, polio, diphtheria)	<ul style="list-style-type: none"> Low vaccination coverage, especially in the geographically hard-to-reach and conflict-affected areas Limited VPD surveillance in the geographically hard-to-reach and conflict-affected townships Overcrowding at IDP camps and in cyclone-affected areas
Outbreaks	e.g. acute watery diarrhoea (AWD), dysentery, cholera, typhoid, paratyphoid, leptospirosis, influenza, other respiratory infections	e.g. AWD, dysentery, cholera, typhoid, paratyphoid, leptospirosis, influenza, other respiratory infection outbreaks, while approaching dry season	e.g. AWD, dysentery, cholera, typhoid, paratyphoid, leptospirosis, influenza and other respiratory infection outbreaks, while approaching dry season	<ul style="list-style-type: none"> Epidemics of waterborne and vector-borne diseases, particularly prevalent during the monsoon season, and related worsening WASH conditions, especially for IDP camps, cyclone-affected areas and conflict areas in Northwest and Southeast, and vulnerable populations in the peri-urban areas of Yangon Limited surveillance and laboratory systems in the geographically hard-to-reach and conflict-affected areas Overcrowding at IDP camps and in cyclone-affected areas
Vector-borne diseases	Monsoon season, peak transmission season for malaria and dengue	Dengue cases decline, but second peak of malaria occurs in some areas	Malaria burden starts early in March and April in many areas	<ul style="list-style-type: none"> Vector-borne diseases endemic in Myanmar Re-emergence of malaria and dengue in many areas in 2021–2022 Population movement to highly endemic areas contributing to the re-emergence Limited access to treatment services and vector control activities Limited access to countermeasures (treatment, LLIN, vector control measures) Limited surveillance and testing services

Public health risk	2023 (Jul.–Sep.)	2023 (Oct.–Dec.)	2024 (Jan.–Jun.)	Rationale
Malnutrition and child health				<ul style="list-style-type: none"> 5 million children at overcrowded IDP camps/IDP-like sites with limited access to health services, including vaccination (UNICEF, 2022) In September 2022, 650 children (299 boys and 351 girls), aged 6–59 months, with severe acute malnutrition (SAM), provided with life-saving treatment and at least 37 503 children suffering from malnutrition (UNICEF, 2022) Increased risk of epidemic along with continued public health service disruption further affecting health promotion and nutrition services in the communities Weak household income and increase in prices of food and fuel
Maternal and neonatal care				<ul style="list-style-type: none"> Suboptimal access to antenatal, delivery, postnatal, family planning and child care Reliance on the private sector, which is overwhelmed, cannot be a sustainable measure.
Sexual and reproductive health				<ul style="list-style-type: none"> Limited access to contraceptives and contraceptive devices United Nations Population Fund-supported safe spaces that are extremely damaged and destroyed, and disruption in community support system and services to prevent gender-based violence against women and girls, following Cyclone Mocha Reliance on the private sector, which is overwhelmed, cannot be a sustainable measure.
Adolescent health				<ul style="list-style-type: none"> High fertility rate among adolescents (33 births per 1000 girls): overall, one in 50 girls in the 10–19 years age group gave births in 2019; highest rate observed in Shan (E) at 42 births per 1 000 girls (Ministry of Health, 2021) Early and forced marriages, trafficking, and gender-based violence against girls; forced recruitment into armed forces for boys Data from the global school-based student health survey (GSHS) 2016 show high prevalence estimates for depression (27.2%) and suicidal ideation (9.4%) among adolescents (13–17 years)
HIV and viral hepatitis				<ul style="list-style-type: none"> Limited treatment, comorbidity management and follow-up; security situation, inflation and increased fuel price limiting access to HIV services in hard-to-reach and conflict-affected townships Need to focus management on advanced HIV disease, scale up HIV self-testing and pre-exposure prophylaxis Low TB preventive treatment (TPT) coverage High price of hepatitis diagnostics and treatment

Public health risk	2023 (Jul.–Sep.)	2023 (Oct.–Dec.)	2024 (Jan.–Jun.)	Rationale
Tuberculosis (TB)				<ul style="list-style-type: none"> • Due to challenges to resuming active case-finding activities, service interruptions in diagnosis of TB and possible drug shortages, increased risk of morbidity and mortality among TB patients, resistant amplifications and transmission of TB and drug-resistant TB (DR-TB); the risk is greater among the displaced, IDP camps, prisons, detention centres and malnourished populations. • An estimated 12 000 TB/HIV cases a year are expected; as per estimates, 30 000 TB deaths are expected in 2023. • Almost 170 000 cases were missed detection in 2020–2022; 12 000 TB/HIV cases a year are expected and an estimated 30 000 TB deaths. Almost 15% of TB patients also have HIV, putting them at risk without initiation of ART. • In Yangon, almost 600/100 000 people have TB and DR-TB and they represent nearly 80% of the missed cases. • Sagaing is the most affected region with extremely limited services for TB. There is a reduced access to rapid diagnostic tools. Sputum transportation to the capital of Sagaing from lower levels has also been affected by security issues.
Violence and injury				<ul style="list-style-type: none"> • Intensifying armed conflict between the military and armed ethnic groups, especially in the South-east • Intensifying tensions and conflicts, and other threats to the safety of civilians, particularly in the North-west, with concerns regarding the resumption of full-scale fighting
Non communicable diseases (NCDs) and cancer				<ul style="list-style-type: none"> • High prevalence of NCDs in the population • Disruption in the health system since the pandemic and the political instability • Current difficulties with humanitarian aid delivery access affecting continuity of essential drug supply, access to diagnosis and treatment, overall disruption in NCD prevention and care activities

Public health risk	2023 (Jul.–Sep.)	2023 (Oct.–Dec.)	2024 (Jan.–Jun.)	Rationale
Mental health				<ul style="list-style-type: none"> Prevalence of mental distress reported at 18.0% for men and women, aged 18–49 years, from the Yangon Region in 2020, higher in women (21.2%) compared with men (14.9%) (Aye, 2020) Prevalence of depressive symptoms among adolescents in Myanmar reported at 27.2% and that of suicidal ideation at 9.4% in 2016 – both substantially higher than the regional averages (Dominic Carroll, 2021) Current country context with security concerns and general instability increases the risk of developing mental health issues, especially among direct victims and populations with pre-existing vulnerabilities.
Natural environment and disaster	Risk of disasters, such as floods, landslides and cyclones, increases in rainy season. Risk of waterborne diseases, zoonotic diseases, such as leptospirosis, also increases during rainy season and in areas where WASH facilities are damaged.	Dry season Earthquakes greater risk just before the monsoon season in April and just after the monsoon season in October	Rainy season starts in June with an increase in floods and landslides. Cyclone Mocha landfall in Myanmar was on 14 May 2023. There are risks of waterborne diseases and vector-borne diseases, such as malaria and dengue. Earthquakes greater risk just before the monsoon season in April and just after the monsoon season in October	<ul style="list-style-type: none"> 28 million people living in districts with a high risk of flood exposure in at least a part of the district area, mainly along Myanmar coasts, the Ayeyarwady river and Kayin Rakhine at risk of cyclone and major storms increasing in intensity as ocean temperatures increase The Ayeyarwady delta, the Central Dry Zone and Northern and Eastern Hill regions likely to experience drought, whereas Kayah and Shan at highest risk of the negative impact of severe drought Several cities and major centres on fault lines at risk of earthquakes Strengthening of climate-resilient health system is still pending. Vulnerability and adaptation assessments have not been conducted yet and the health-related National Adaptation Plan has not been finalized.
(2) Red: Can result in a high level of excess morbidity and mortality in the forthcoming month. Orange: Can result in a considerable level of excess morbidity and mortality in the forthcoming month. Yellow: Can result in a minor contribution to excess morbidity and mortality in the forthcoming month. Green: Will probably not result in any excess morbidity and mortality in the forthcoming month.				

Epidemic-prone disease

The National Surveillance and Laboratory System remains limited especially for the hard-to-reach and conflict-affected townships which hampers timely detection and rapid response. Combined with the pre-existing heavily restricted access to health services, Cyclone Mocha has damaged health infrastructure (315 health facilities damaged) and caused displacement and overcrowding at IDP camps, posing significant public health hazards, with regard to infectious disease outbreaks, to people in Rakhine, North-west and Kachin. With the mobile population covering more than 1.8 million people across the country, there is a risk of outbreaks occurring across more communities and even putting neighbouring countries with shared borders at risk. Without efficient and effective preparedness, the risk of seasonal diseases and other outbreaks, such as influenza and cholera, also increases.

COVID-19: At the global level, the WHO Director-General declared on 5 May 2023 that COVID-19 is no longer a public health emergency of international concern (PHEIC) due to the following important improvements in COVID-19 pandemic:

- the decreasing trend in COVID-19 deaths;
- a decline in COVID-19-related hospitalizations and ICU admissions;
- currently circulating variants, which do not appear to be associated with increased severity; and
- the high levels of population immunity due to SARS-CoV-2 infection, vaccination or both.

However, the end of the PHEIC does not mean COVID-19 is over as a global health threat, in terms of the continued

evolution of this virus and its presence worldwide, and the continued vulnerabilities in our society. It is time for countries to transition from the emergency mode to managing COVID-19 alongside other infectious diseases.

At the regional level, the number of new cases and deaths has continued to decline, except for a slight, short-lived increase in few countries. Hospital bed occupancy and ICU admission rates have remained low in the Region. Testing for SARS-CoV-2 remains low, with no country in the Region meeting the WHO-recommended benchmark of one test per 1000 population per week.

In Myanmar, reported cases and deaths related to COVID-19 have decreased continuously since November 2022. This was followed by a minor resurgence in early May 2023, with four COVID-19 deaths reported and no reports of any increase in the number of severe cases or an overstretched health-care system in the country.

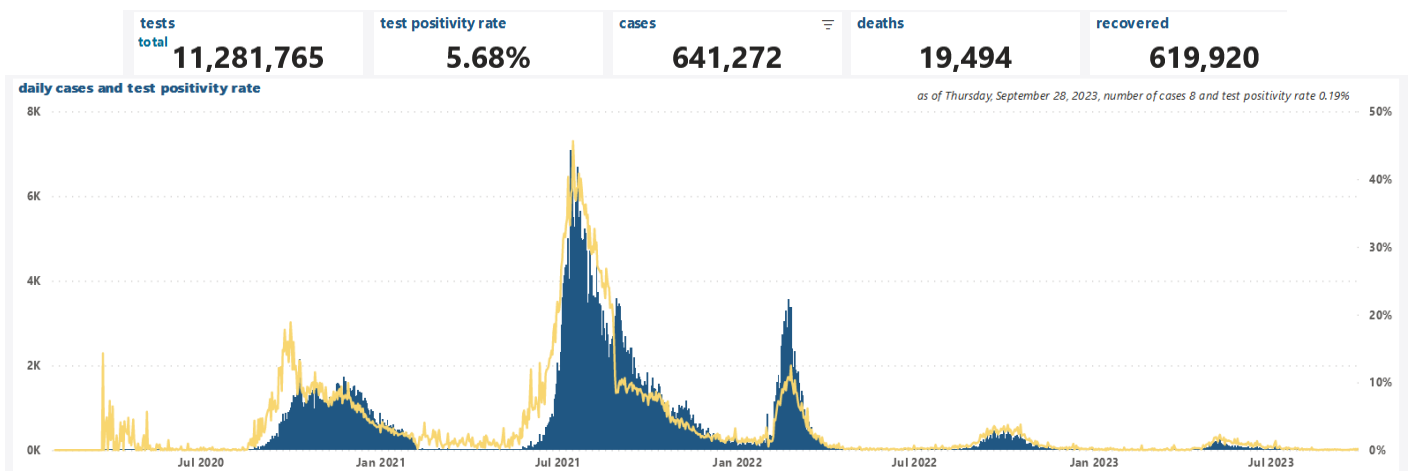
Even as population immunity is growing (either previous natural infection or through vaccination or both) and currently circulating variants/sub-lineages are not associated with severe forms of the disease among the majority of the population, newer variants/ sub-lineages may emerge. The possibility of the emergence of highly immune, invasive variants/sub-lineages or those associated with severe diseases also cannot be ruled out. Continued vigilance is critical. Only 64% of the eligible population completed the primary series of vaccination and 25% received one booster dose. A segment of the population is still vulnerable to COVID-19 infection and severe disease, especially in hard-to-reach and conflict-affected townships.

COVID-19 response activities that include testing of patient under investigation (PUI), contacts and people who undergo quarantine, genomic surveillance, laboratory testing, case management and vaccinations are taking place in some parts of the country despite the continued limited access to these services in the hard-to-reach and conflict-affected townships.

Since the national surveillance system for epidemic and pandemic infectious diseases has been disrupted, it is quite challenging for Myanmar to integrate COVID-19 into routine surveillance system, as per WHO's advice on transitioning from the emergency mode to managing COVID-19 alongside other infectious diseases.

WHO and health partners are continuing to support the COVID-19 response.

Fig. 4. COVID-19 cases and deaths by day, Myanmar, January 2020–September 2023



Source: [WHO Myanmar COVID-19 dashboard \(WHO, 2020\)](#)

mpox: Myanmar has not yet reported any mpox case. In the WHO South-East Asia Region, the mpox situation is still evolving; **418** laboratory-confirmed mpox cases (including **two** deaths) have been verified, as of **27 September 2023** (385 cases in Thailand, 27 cases in India, four cases in Sri Lanka, one case in Indonesia and one case in Nepal). In all likelihood, there is, currently, local transmission in Thailand. Yet no case has so far been reported in the areas bordering Myanmar.

In the event of introduction of mpox in Myanmar, given the vulnerability of the health-care system in the country, including limited surveillance and response capacities, we can expect monkeypox to lead to a minor to moderate consequence over the coming months, if the current humanitarian crisis situation does not improve. Furthermore, limited access to monkeypox preparedness and response policy/plan may challenge the country's effort for timely response and control activities. Difficulties with access to treatment and vaccination pose additional risks of morbidity and mortality for vulnerable groups in the event of an outbreak.

Vaccine-preventable diseases (VPDs)

Situation: Myanmar had established a surveillance system for measles, rubella, congenital rubella syndrome (CRS) and acute flaccid paralysis (AFP), prior to the pandemic, under the coordination of the Central Epi Unit (CEU) at the Department of Public Health and regional surveillance officers in states and regions. Two national laboratories were contributing to VPD surveillance.

The World Health Organization certified and declared that Myanmar had successfully eliminated neonatal tetanus in 2010. There was a 90% reduction in the measles mortality rate from 1999 to 2010. Myanmar attained a polio-free status in March 2014.

Although the Myanmar EPI objectives aimed to provide equitable service to all target children, there are still pockets of low immunization coverage, especially in the geographically and socially hard-to-reach and conflict-affected areas, where there are unimmunized children, resulting in VPD outbreaks.

The situation worsened during the COVID-19 pandemic, when routine immunization was postponed across the country. EPI activities across the country were again disrupted in all states and regions, following the political crisis on 1 February 2021.

Table 2. Reported cases of vaccine-preventable diseases, Myanmar, 2018–2022

<i>Diseases</i>	<i>Data type</i>	<i>2018</i>	<i>2019</i>	<i>2020</i>	<i>2021</i>	<i>2022</i>
AFP	Reported AFP cases	335	420	186	33	151
	Confirmed polio cases	0	6 (cVDPV)	0	0	0
Measles	Reported fever with rash cases	2072	6544	682	30	57
	Confirmed measles	1456	5247	442	8	10
Rubella	Tested for rubella	648	1320	257	25	57
	Confirmed rubella	13	28	3	3	0
Diphtheria	Suspected	188	121	273	7	41
	Confirmed diphtheria	59	22	169	3	3
Japanese encephalitis	Reported AES cases	2070	2068	871	43	91
	JE confirmed cases	1265	116	75	2	6
Pertussis	Clinically confirmed cases	28	30	13	0	2
Neonatal tetanus	Clinically confirmed cases	22	25	17	8	15

Source: eJRF

Impact: The sensitivity of the VPD surveillance system has deteriorated at all levels during the pandemic. The political crisis in 2021 further limited the availability of reliable data for routine vaccine coverage. The decline in VPD surveillance activities has impacted early notification of and timely response to VPD outbreaks. The absence of the Regional surveillance officers' network is also impacting the VPD surveillance in the country. Almost five million children are missing out on vitamin A supplements. The situation has increased the vulnerability to VPD outbreaks.

While the VPD surveillance continues to have low sensitivity, there was a fourfold increase in reporting of cases in the last quarter of 2022.

- **AFP:** Reporting improved from 33 AFP cases in 2021 to 145 cases in 2022, the majority of them being reported in the last quarter of 2022. Despite all efforts, the non-polio AFP rate was 0.77 in 2022, against the target of 2/100 000 under-15 population.
- **Measles:** Seven out of 57 cases were confirmed by laboratory (Week 52). The annualized incidence of non-measles non-rubella rate stood at 0.09 (2/100 000 total population). The annual measles incidence was 4.74 per million in 2022.
- No outbreak of measles and rubella was reported in 2022.
- **Diphtheria:** Cases were reported in 2021 (N=3) and 2022 (N=4). In 2023, until 31 July, 37 suspected measles cases and zero laboratory-confirmed cases were reported. The number of districts reporting at least two discarded non-measles non-rubella cases per 100 000 population is very low.

Fig. 5. Geographical distribution of measles cases, Myanmar, 2018–2022

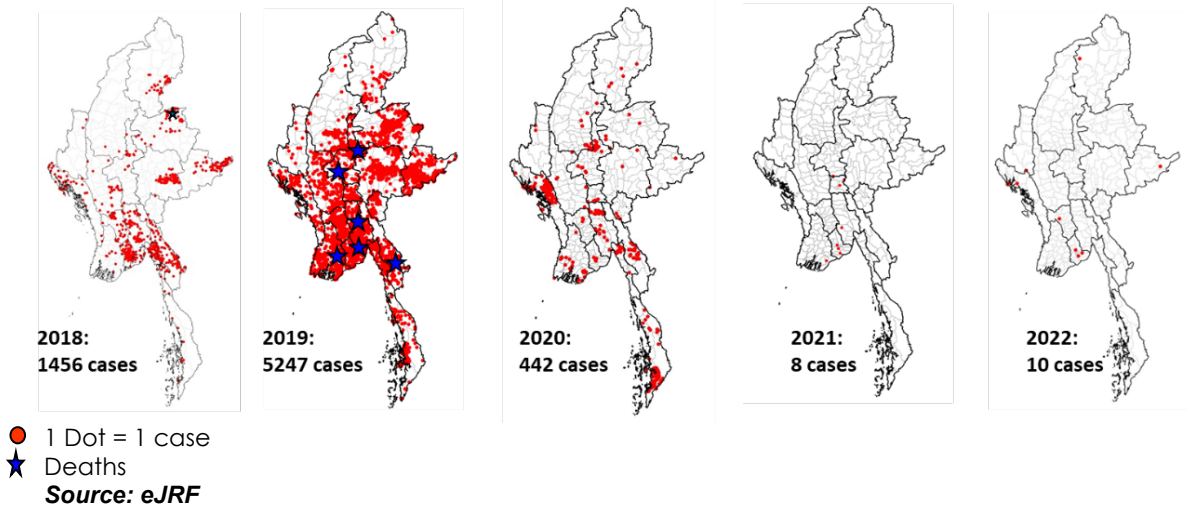
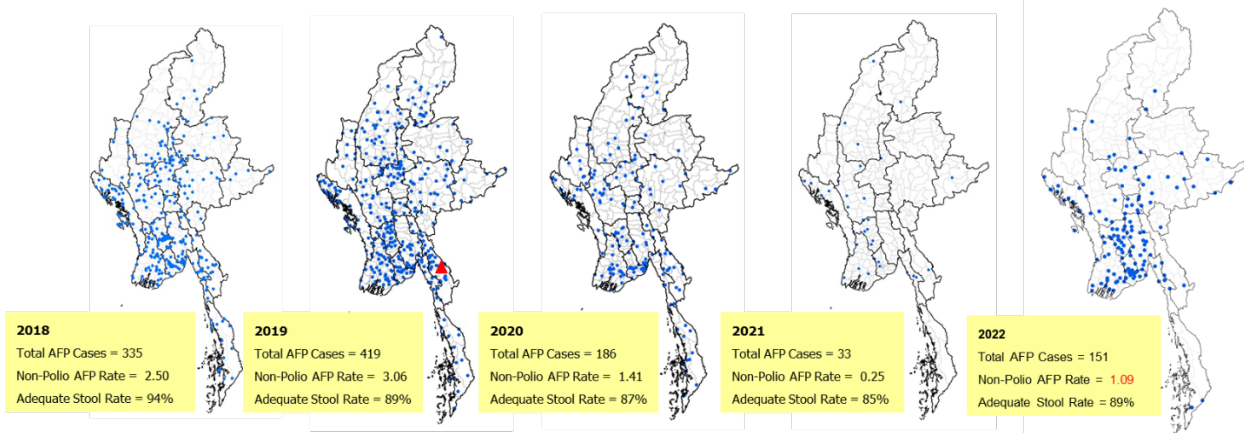


Fig. 6. Geographical distribution of AFP cases, Myanmar, 2018–2022



● 1 Dot = 1 AFP case
Source: eJRF

As part of the current efforts with regard to recovering, building resilience and strengthening routine immunization (RI) in Myanmar following the COVID-19 pandemic:

- The National Immunization Technical Advisory Group (NITAG) has been revived.
- In 2022, Myanmar was able to vaccinate more than 186 000 zero-dose children, who missed the vaccination in 2021.
- Penta/DPT3 coverage improved from 37% in 2021 to 71% in 2022.
- A review mechanism with states/regions was established. The RI revitalization workshop was conducted in November 2022.
- With the technical support of WHO and UNICEF, an annual EPI review meeting was conducted on 26–28 April 2023, with a focus on improving vaccination coverage, based on equity and accessibility.
- Catch-up vaccination activities were discussed and agreed upon, prioritization of activities, including timelines for intensification of RI, was recommended. Catch-up under two years was conducted in select states/regions in feasible townships.
- As part of efforts to further reduce the number of zero-dose and under-vaccinated children in Myanmar, an additional cadre of more than 8000 basic health workers is being trained to reach and catch up with the missed children and pregnant women.

Gaps and needs

- Strengthen NITAG.
- There is a need for a phased multi-antigen catch-up immunization campaign to mitigate risks from VPD outbreaks. This was proposed in August 2023 in prioritized states/regions.
- Further improve immunization services through refresher trainings for health workers and revised microplanning. National-level master trainings are completed. State/regional training has already been initiated in June 2023.
- Train (skill-based) newly recruited health workers with a focus on handling vaccine, administration of vaccines and injection safety. This is planned for the last quarter of 2023.
- Integrate COVID-19 vaccination as part of essential health services through primary health care (routine immunization services).
- Introduce new and underutilized vaccines, based on evidence and NITAG recommendation.
- Conduct joint field RI-VPD surveillance assessments.

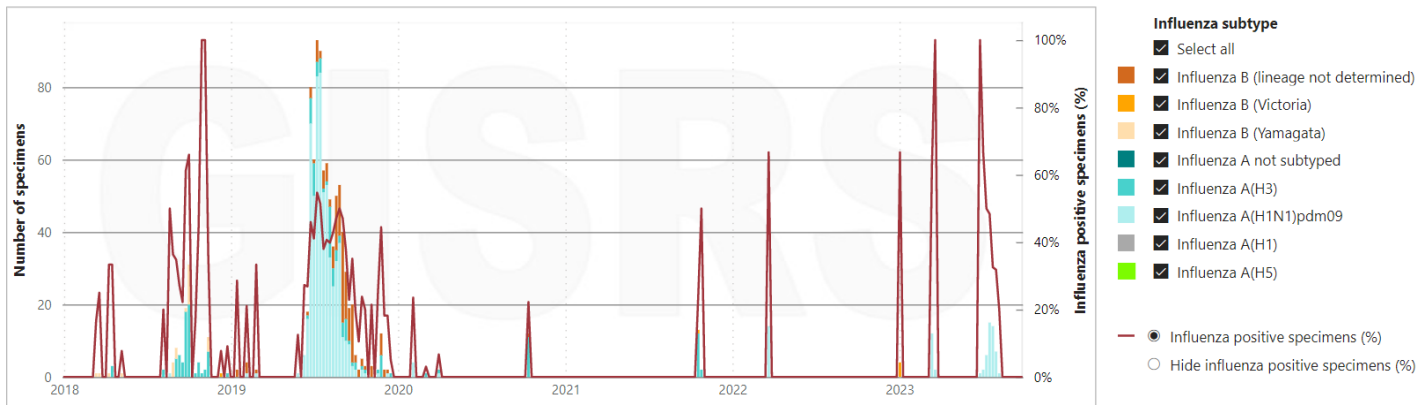
Influenza and other respiratory diseases

Situation: Every year, June–September is the influenza-endemic season for Myanmar, which coincides with the monsoon season. The country has both influenza-like illness (ILI) surveillance and severe acute respiratory infection (SARI) surveillance at sentinel sites (n=10 sites for ILI and n=8 sites for SARI), which covered a total of seven states/regions, with case-based data reported every week to the national surveillance system (WHO, 2022). Of note, four out of 10 sentinel sites are in conflict-affected areas while the remaining sites are in major cities where conflicts are still occurring. Due to limited human resources in the public health sector, there are security challenges to regular sample transportation during the current humanitarian crisis; ILI/SARI sentinel surveillance function has also been limited, with irregular sharing of influenza data on the WHO FluNet platform.

According to the information provided to FluNet, the majority of the samples detected in early 2023 were reported as influenza A(H1N1) pdm09, which has been the predominant strain among the influenza subtypes reported by Myanmar in the past.

Impact: As can be observed in Fig. 7, reporting of influenza data and processing of virological samples have been severely affected by the current humanitarian crises and conflict. There are very limited data for 2021 onwards, posing risk to timely detection of seasonal influenza outbreak as well as of zoonotic and new subtype of influenza.

Fig. 7. Influenza virus detections by subtype, reported to WHO FluNet, Myanmar, 1 January 2018–25 September 2023



Source: (WHO, 2022) [Microsoft Power BI](#)

Other epidemic diseases

In 2019, more than 100 out of 1000 under-five children, who resided in Kayah, Chin and Kachin States, suffered from diarrhoea (Myanmar Ministry of Health, 2021). The lowest morbidity rate was reported from the Yangon Region, the Nay Pyi Taw Territory and the Mandalay Region (Myanmar Ministry of Health, 2021). In terms of health-seeking practices, only 54% of children with diarrhoea were taken to health facilities for treatment and 86% of them received oral rehydration therapy or increased fluid.

Endemic infectious diseases

Malaria

Situation: Malaria is endemic in Myanmar, which has the third highest burden among countries in the SE Asia Region. Its distribution is heterogenous in the country, with the peak season during the months of June–August, coinciding with the monsoon season. Over 43 million people are at risk and over 85% of cases are detected along the international border in the midst of the ongoing emergencies, internal displacement and armed conflict (Fig.8). The primary malaria vectors are still susceptible to pyrethroids and antimalarials with over 95% effectiveness, and malaria immunity among people residing in low-transmission areas is declining. Myanmar was making unprecedented progress on the reduction of cases until 2020, when the COVID-19 pandemic disrupted it.

Impact: In 2022, a total of 158 463 malaria cases were reported. *P. vivax* (81%) is the predominant species (National Malaria Control Programme, DoPH). In 2021, the access to treatment services at public health facilities was limited due to shortage of health-care professionals, disruption in supply system, shortage of malaria commodities and population movement. This was compounded by internal migration from low- to high-transmission areas, which had enhanced the transmission intensity in previously high-burden areas and caused outbreaks. In 2022, access to public health services and the supply chain situation improved with some limitations regarding distribution of required commodities on time in high-endemic areas. Vector control interventions, such as distribution of long-lasting insecticidal nets (LLIN), could not be conducted in many high-burden areas. This led to increased disease transmission intensity throughout the country. The cases increased from January to May 2023. The number of malaria cases and the overall positivity rate (%) of *P. falciparum* plus mixed cases and *P. vivax* were much higher, compared with the same period in 2022 (Fig. 9). Initial data suggest that malaria cases have increased in cyclone-affected areas. At the same time, national response has been mounted to respond to this surge.

Fig. 8. Distribution of malaria cases, Myanmar, 2022

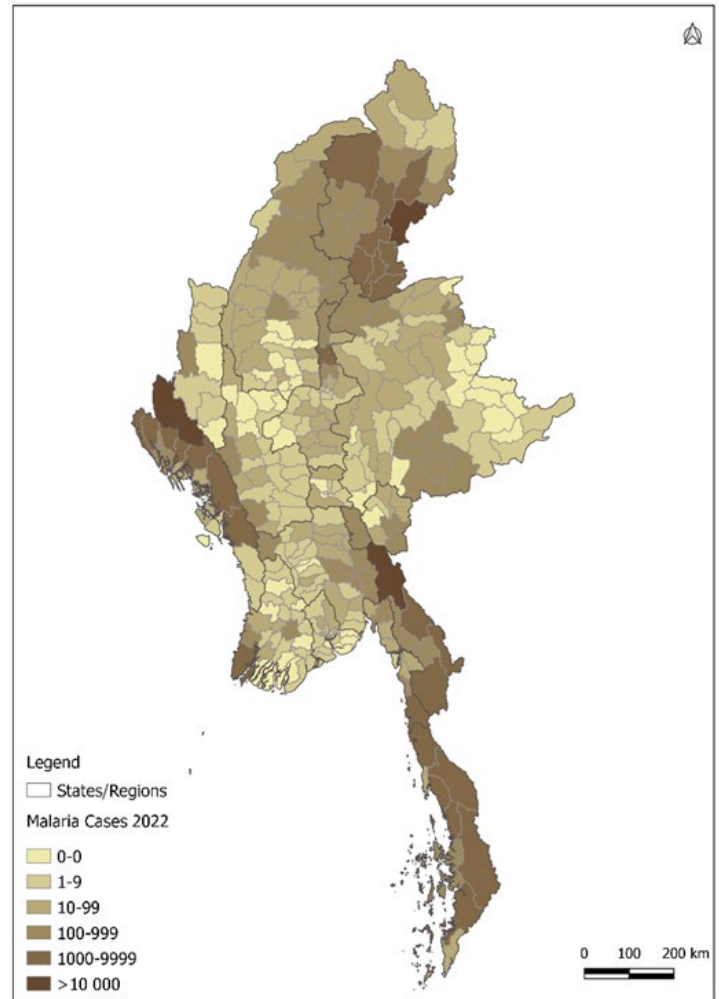
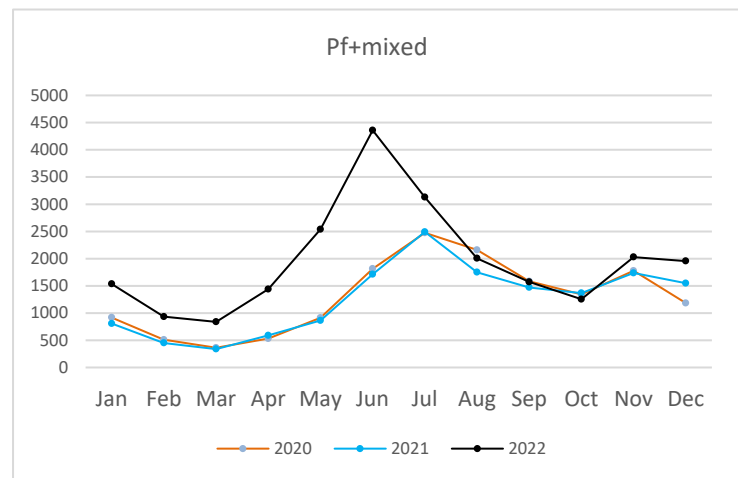


Fig. 9. Malaria cases and positivity trends in 2022 versus those in 2020 and 2021



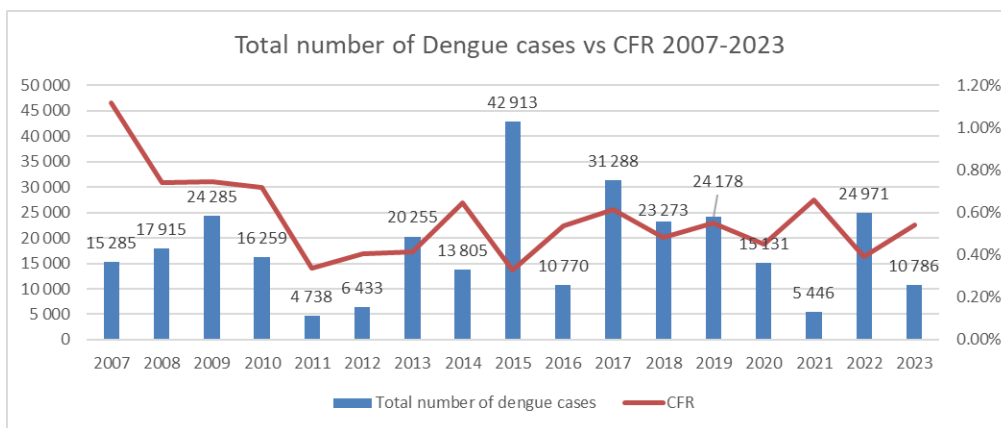
Source: WHO Myanmar Country Office, 2022

Dengue

Situation: Dengue is endemic in Myanmar and has been reported in the country since 2007. The number of cases started rising from 2001, with a cyclical epidemic pattern over the years (Fig. 10). The highest number of dengue cases was reported in 2015, with a total of 42 913 cases. The number of cases fell to a very low level in 2016 (total cases 10 770), followed by a rise in the number of cases in 2017 (total cases 31 288). In 2021, the total number of reported cases stood at 5 446, which was lower than that in the previous two years – 2019 (21 573 cases) and 2020 (15 131 cases). The total number of dengue cases and deaths, reported in 2022, stood at 24 971, which was higher than that in the previous two years and was expected. A total of 97 deaths were reported, with the case-fatality rate (CFR) estimated to be 0.39%. It is encouraging to note that the national programme has been maintaining the case-fatality rate below 1% since 2008, which shows improved early diagnosis and effective case management of dengue haemorrhagic fever at health-care facilities and robust referral mechanisms.

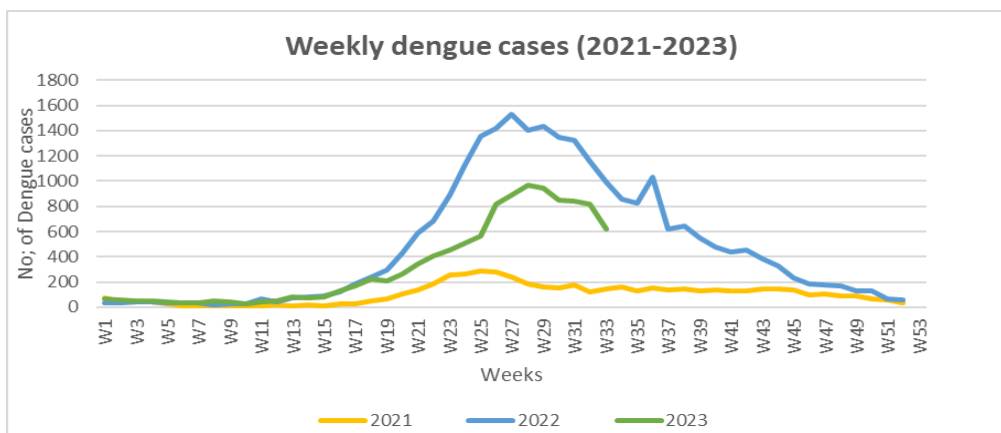
The dengue peak for this year likely passed during the month of July and the number of cases reported had remained below the total reported in the previous year. The dengue data have to be interpreted cautiously due to limited surveillance and testing activities in many areas because of the ongoing conflicts; the vector density data are not available and vector prevention and control activities have also been affected.

Fig. 10. Total number of dengue cases and case-fatality rate by year, Myanmar, 2007–2023



Source: WHO Myanmar Country Office

Fig. 11. Dengue cases by epidemiological week, Myanmar, 2021–2023



Source: WHO Myanmar Country Office

Impact: Dengue transmission tends to have seasonal patterns, with high transmission witnessed during monsoon (June–September). Early diagnosis and effective case management of dengue haemorrhagic fever may be greatly impacted due to the impaired functionality of public health-care facilities in Myanmar. The number of cases increased in 2022, compared with the previous two years, and the outbreak began earlier, as shown in Fig. 11. In 2022, the case-fatality rate was 0.39%. In 2023, up to week 21, the dengue case trend is similar to that of the previous year in the early weeks, but the number of cases started to slightly decline from week 15.

Leprosy

Situation: Leprosy has been a public health problem in Myanmar for a long time now. The leprosy control activities were integrated into the basic health services (the primary health care programme) in 1978. Myanmar adopted the WHO strategy for further reducing the leprosy burden and sustaining leprosy control/elimination activities and focused its effort on improving the quality of care by promoting disability prevention activities. Multidrug therapy (MDT) was started in 1988 and was expanded phase by phase, covering all townships, in 1995. Elimination of leprosy was declared in 2003. However, new cases, ranging from 2000 to 3000, are detected annually. The programme is now aiming for “zero leprosy”, which means zero infection and disease, zero disability and zero stigma and discrimination by 2030.

Impact: Most of the health facilities are unable to provide diagnosis, treatment and referral services for leprosy. All planned activities, such as capacity-building, coordination, case detection, contact tracing, post-exposure prophylaxis, prevention of disability activities and sentinel surveillance for drug resistance, are on hold. The supply of leprosy MDT drug from health facilities to patients has been interrupted.

Lymphatic filariasis

Situation: Lymphatic filariasis was endemic in 45 districts in 2001. The national programme started mass drug administration (MDA) in 2001. As of 2020, a total of 30 implementation units (IUs) had stopped MDA, with MDA being continued in 15 IUs, and 13.9 million people were administered the medicine with a coverage of 97.2%. The programme implemented triple therapy drug mass administration in Sittwe and Mrauk-U districts of Rakhine State in February 2023 amidst the complex operational situation. A total of 1 446 354 people received the treatment with a coverage of 92.2%.

Impact: No MDA was implemented in 2021 and 2022. Of the 15 IUs eligible for the Pre-Transmission Assessment Survey (Pre-TAS) in 2021, only three could effectively conduct Pre-TAS because of the COVID-19 crisis and the political situation.

Zoonotic diseases

Leptospirosis: Leptospirosis is endemic in South-East Asia; however, it is not well-reported and surveillance is limited, including in Myanmar. In the neighbouring country of Thailand, leptospirosis is a major public health concern; several outbreaks are reported annually. A study (Ellis, 2006), covering the Thailand-Myanmar border (Sangkhlaburi District, Kanchanaburi Province), established leptospirosis as the second most common cause of undifferentiated febrile illness in this region, suggesting that the disease may be endemic in Myanmar as well. In a recent cross-sectional study of 180 abattoir workers at five registered abattoirs in Yangon, carried out by the Southeast Asia One Health University Network (SEAOHUN), 12 (6.7%) were found seropositive for leptospirosis antibodies. This is the first report on seropositivity of leptospirosis among abattoir workers in Myanmar.

Rickettsioses: Recent studies in Myanmar have found that rickettsial infections are very uncommon causes of fever at primary care clinics in Yangon (Althaus et al., 2020), but high scrub typhus group (STG) immunoglobulin M (IgM) and IgG titres have been found in suspected cases of scrub typhus in Sagaing and Magway (Win et al., 2020). Other studies on the Thai side of the border with Myanmar have found convincing evidence of all major groups of rickettsial infections: 4%–12% of patients presenting with (non-malarial) fever were diagnosed with rickettsial infections (Ellis et al., 2006; McGready et al., 2010; Pickard et al., 2004; Watthanaworawit et al., 2013). These studies suggest that rickettsioses is likely to be an important cause of disease in specific geographical regions of Myanmar. However, no studies have been published on the prevalence of different rickettsial infections in multiple regions of Myanmar.

Rabies: Rabies is endemic in dogs in Myanmar and is a notifiable disease in animals. The total reported number of rabies cases decreased slightly from 198 cases in 2016 to 138 cases in 2019 (Myanmar Ministry of Health, 2021). Confined to the nature of being a most deadly disease, the case-fatality rate was 100 percent for all four years. Post-exposure prophylaxis is available and rabies surveillance is in place, but data on zoonotic diseases are limited and the surveillance systems do not capture adequate information on zoonotic events.

Impact: Even though laboratory-based surveillance system and diagnosis for these diseases were project-based before the military takeover, the national laboratory-based surveillance system for those diseases became more constrained due to the political situation.

In September 2022, rodent (rats) infestation in the crop fields of Kachin was reported by the WHO Country Office. While this is currently a food security issue, the risk of zoonotic diseases from these rodents cannot be ruled out.

Historically, these rodent infestations occur right after the rainy season or the bamboo flowering event, which takes place every 30–50 years. Furthermore, there have been historic plague outbreaks in Myanmar, including bubonic plague outbreak, all of which can lead to high morbidity/mortality in the population.

Malnutrition and child health

Situation: Five million children in Myanmar need humanitarian assistance and many internally displaced children are living in overcrowded conditions at IDP camps, where they cannot access essential health services, including immunization (UNICEF, 2022). In 2017–2018, the Myanmar Micronutrient and Food Consumption Survey estimated the prevalence of severe acute malnutrition (SAM) at 0.8%. However, this rate was as high as 1.7% and 1.6% in Ayeyarwady Region and Kayin State respectively. The prevalence of global acute malnutrition (GAM) was 6.7% and stunting was recorded at 26.7%. With regard to the feeding practices of infant and children at the national level, exclusive breastfeeding was estimated at 51.2% and the minimum acceptable diet among infants, aged 6–8 months, was recorded at 13%. The under-five mortality rate was estimated to be 42 deaths per 1000 live births in 2022 (Levels and Trends in Child Mortality: 2022 Report, United Nations Inter-Agency Group for Child Mortality Estimation).

In September 2022, approximately 650 children (299 boys and 351 girls) with SAM, aged 6–59 months, were provided with life-saving treatment and at least 37 503 children had been diagnosed as suffering from malnutrition (UNICEF, 2022). Increased risk of vaccine-preventable diseases, AWD and cholera, along with the continued public health service disruption in Myanmar, will further affect the health promotion and nutrition services at the community level, leading to aggravation of malnutrition and spikes in morbidity and mortality among children.

Finally, despite a relative stabilization of the economy, household incomes remain weak and the relative high prices of food and fuel increase the risk of food insecurity and malnutrition among the most vulnerable populations. Acute food insecurity is at critical high levels in various parts of the country. A total of 15.2 million people, nearly 28% of the total population, are estimated to be facing acute food insecurity in 2023. It is complicating the food choices and feeding practices.

Impact: Due to the protracted COVID-19 restrictions since mid-2020 and with the current political situation in Myanmar, many nutrition-related activities, carried out by the public sector and partners, have been grossly reduced. In addition, current conflicts continue to raise the number of IDP. Myanmar Humanitarian Update No. 30, issued on 13 June 2023, reported that 80% of the new displacement sites (142 out of 178 in Rakhine plus Paletwa in Chin) lacked appropriate nutrition response services for children under five.

Sexual and reproductive health

Situation: Myanmar had been making significant progress on reducing maternal, newborn and child mortality. Maternal mortality ratio had dropped by 52% (from 371 to 179 maternal deaths per 100 000 live births), with a 3.7% annual rate of reduction between 2000 and 2020 (Trends in Maternal Mortality 2000–2020, 2023 Report, p.65). Similarly, the under-five mortality rate (U5MR) and the neonatal mortality rate had decreased by 63% (from 115 to 42 per 1000 live births) and 54% (from 48 to 22 per 1000 live births) between 1990 and 2021 (Levels and Trends in Child Mortality: 2022 Report, United Nations Inter-Agency Group for Child Mortality Estimation). However, the risk of maternal and child deaths was disproportionately high among the most vulnerable populations across the country. The maternal mortality ratio in Chin (357 per 100 000 live births) was found considerably higher than that in other states and regions while the U5MR in Magway (108 per 1000 live births) was twice the national average. In addition, the maternal mortality ratio was particularly higher among girls, aged 15–19 years (229 per 100 000 live births). Postpartum haemorrhage remained the first leading cause of maternal deaths while abortion was the second. Prematurity, birth asphyxia and neonatal sepsis were the leading causes of newborn deaths.

Sexual and reproductive services, including basic maternal health care services, are delivered by primary health care providers at township-level hospitals and health centres. At the national level, the number of pregnant women accessing antenatal care (ANC), at least once during pregnancy (ANC 1), increased from 75% in 2012 to 88% in 2019, and the number of those accessing ANC four times (ANC4) increased from 66.9% in 2012 to about 78% in 2018. There were, however, variations in crisis-affected states and regions, significantly reporting lower access to ANC (Myanmar Ministry of Health, 2021). Furthermore, in 2019, while Yangon achieved 93% institutional delivery, followed by Nay Pyi Taw at 83% and Mandalay at 79%, Chin and Rakhine recorded institutional delivery rate at 36% and 40% (MMR Ministry of Health, 2021) respectively (Fig. 13). Similarly, in 2019, postnatal care coverage was around 80% in most states and

regions; in Shan (East and North) and Rakhine, it was around 50%–60% (Myanmar Ministry of Health, 2021).

Finally, the rate of using modern contraceptive methods (mCPR) among eligible couples increased nationally from around 50% in 2014 to more than 70% in 2019 (Myanmar Ministry of Health, 2021). However, when comparing rates across the states and regions, Yangon (77%) showed the highest use of mCPR and Chin (34.2%) and most of the rural and vulnerable population the lowest (Myanmar Ministry of Health, 2021) (Fig. 14). Similarly, close birth interval was observed at more than 10% in Chin and Kayah (Myanmar Ministry of Health, 2021).

Impact: Sexual and reproductive health-related data remain limited since the development of the political situation in 2021. Access to antenatal, delivery, postnatal care as well as family planning is suboptimal, particularly in crisis-affected areas, relying on the private sector and on the community-based organizations, supporting their communities. Access to contraceptives and contraceptive devices as well as other medicines, medical supplies, and equipment for maternal, child and sexual health is limited, increasing the risk of unwanted pregnancies and unsafe abortions.

Gender-based violence (GBV): According to the Myanmar Demographic and Health Survey (MDHS), conducted in 2015–2016, 23% of households are headed by women. In total, 15% of women reported that they have experienced physical violence since the age of 15 (9% in the 12 months before the survey); 3% of women have experienced sexual violence (since the age of 15); 2% have experienced sexual violence recently (in the year before the survey); and 21% of ever-married women have experienced physical, emotional or sexual violence committed by their husbands. Most women do not seek help when experiencing domestic violence.

Impact: The current humanitarian crisis and conflict situation has acutely affected groups that have historically suffered from marginalization, discrimination and violence. According to research conducted by women human rights defenders and shared with the Special Rapporteur, soldiers have perpetrated sexual violence more frequently and in more diverse geographical regions since the coup (OHCHR, 2022). Women's rights groups have documented more than 100 cases of rape or sexual violence in Myanmar since the coup, the majority of which have been perpetrated by the armed forces, Border Guard Forces or other junta-aligned groups (OHCHR, 2022).

Widespread forced displacement has increased the vulnerability of women and girls, who lack access to water, nutrition and vital services, including sexual and reproductive health services (OHCHR, 2022). Women have been forced to use plastic bags instead of sanitary pads; unwanted pregnancies are increasing due to lack of access to contraception; and women are giving birth in the jungle, without access to medical care. Women's groups have reported an increase in cases of domestic violence at IDP camps and in villages as household financial stress and food insecurity have escalated (OHCHR, 2022). In addition, due to the collapse of the country's economy, civil society groups have reported an increase in trafficking of women and girls to Thailand, China, India, Malaysia and Dubai (OHCHR, 2022).

Table 3. Report on GBV, January–April 2023 (UNFPA)

	<i>Indicator</i>	<i>People reached</i>
1	Number of women, men, girls, boys reached through sensitization, community engagement and capacity-building with regard to GBV prevention and principles that address negative social norms	80 345
2	Number of humanitarian staff members (non-GBV specialists), who have received training in risk mitigation, psychological first aid and safe referral	163
3	Number of local organization, CBO and women's organization staff members trained in relevant GBV prevention and response topics	270
4	Number of staff/front-line workers trained in GBV guiding principles and relevant response services (case management, GBV minimum standards, etc.)	483
5	Number of women and girls, who accessed services in women- and girls-friendly spaces	56 850
6	Number of women and adolescent girls, who received dignity kits (disaggregated by age), as part of addressing differential needs and GBV risk mitigation measures	24 425
7	Number of women and girls receiving services in safe houses/shelters	0

Source: [GBV response monitoring 2023](#)

Fig. 12. Antenatal care (ANC) coverage by states and regions, Myanmar 2019



Fig. 13. Places of birth by region and state, Myanmar, 2019

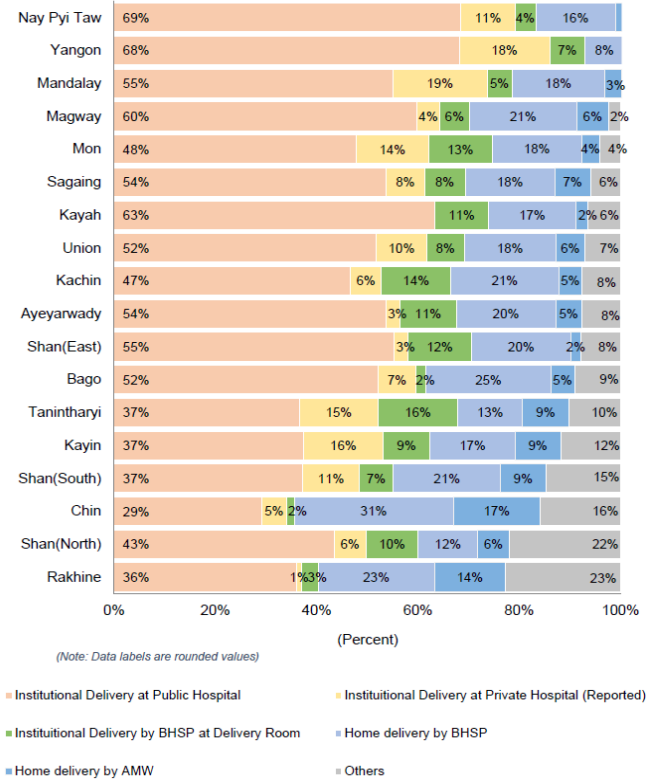
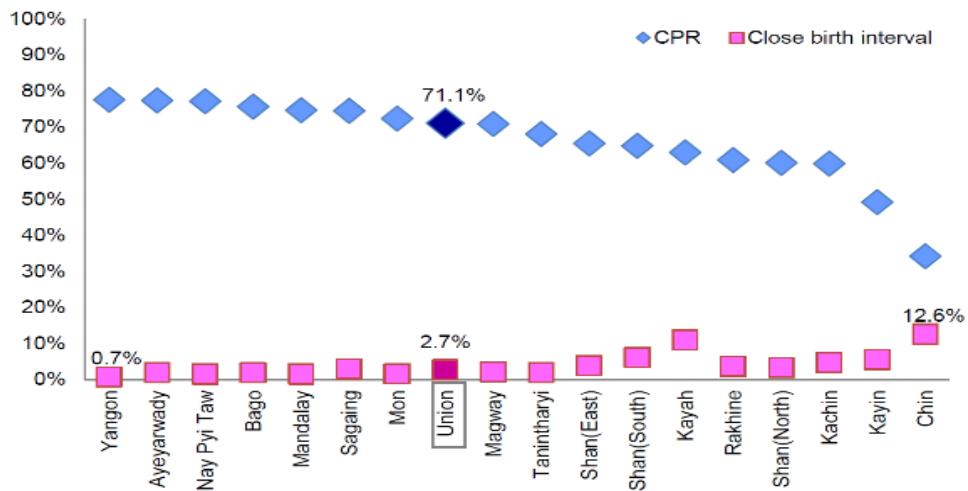


Fig. 14. Contraceptive use (CPR) and close birth interval by state and region, Myanmar, 2019



Source: Myanmar Ministry of Health, 2021

Tuberculosis, HIV and viral hepatitis

Tuberculosis

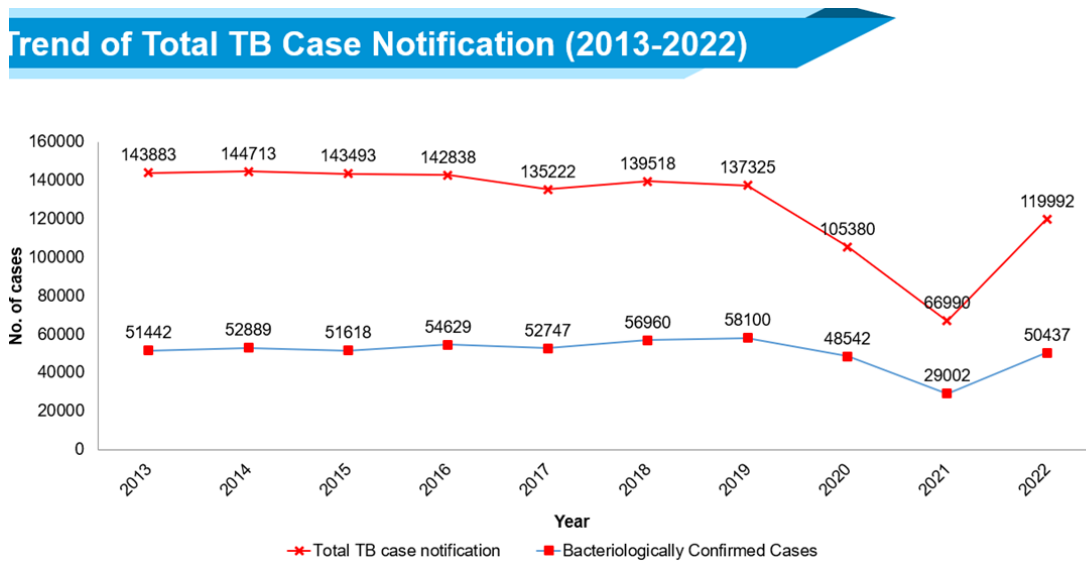
Situation: Tuberculosis is one of the major public health problems in Myanmar, only one of the few countries in the world with a high burden of drug-sensitive TB, drug-resistant TB and TB/HIV. The estimated TB incidence was 360 (250–490) per 100 000 population in 2021. An estimated 36 400 people died of TB in 2021. In total, 60% of people affected with TB are facing catastrophic cost.

In 2022, a total of 117 302 drug-sensitive TB (DS-TB) cases and 2690 drug-resistant TB (DR-TB) cases were notified. The TB treatment success rate for new and relapse TB cases registered in 2021 was 87%.

The number of men affected by TB is almost double the number of women suffering from the disease. Close contacts of TB cases, the malnourished, the HIV-infected, smokers, diabetes, people with alcohol use disorders and health workers constitute the highest-risk groups. Yangon is the most affected region, reporting 25% of all TB burden and 50% of the DR-TB burden in the country. Almost 70% of TB diagnosis and treatment are provided by the public sector and the remaining by public–private and public–public partnerships. Community-based TB care is improving in terms of performance and contributing to about 15% of TB notifications.

WHO provides technical assistance to adopt the latest tools, recommended by the WHO Global TB Programme, and Myanmar is one of the foremost countries to introduce all-oral drug-resistant TB treatment throughout the country.

Fig. 15. Number of TB case notifications, Myanmar, 2013-2022



Impact: TB case-finding activities have been seriously affected by the current situation in Myanmar. Following the COVID-19 pandemic and in the context of the ongoing humanitarian crisis and conflict situation, from 2020 to 2022, almost 170 000 TB cases (more than 50% of DS-TB and nearly 80% of DR-TB) expected to be notified missed detection. Each undetected case can transmit TB to an additional 5–7 people. In Yangon, almost 600 out of 100 000 people have tuberculosis DR-TB; and these missed cases can result in DR-TB crisis, if not addressed as a priority. Mortality for 2023 is estimated to be around 30 000 cases.

HIV/AIDS

Situation: Myanmar has the second highest HIV prevalence among adults (0.8%) in the South-East Asia Region. The number of people living with HIV (PLHIV) is estimated to be 270 000 and Myanmar is one of the five countries in the Region where estimated PLHIV are geographically concentrated. The HIV epidemic in

Myanmar is concentrated among key populations (people who inject drugs, men who have sex with men, transgender women and sex workers). Geographically, five states and regions, namely Yangon, Mandalay, Sagaing, Kachin and Northern Shan, have a high burden of HIV. Estimated new infections are about 11 000 per annum and the number of AIDS-related deaths is estimated to be 6600. In 2022, more than 200 000 PLHIV were receiving antiretroviral therapy (ART). Since people who inject drugs have the highest prevalence, harm reduction services are priority interventions. In 2022, nearly 26 000 persons who inject drugs (PWID) (22% of estimated PWID) were on opioid substitution therapy (OST).

Impact: Limitation in human resources and the security situation affected the provision of comprehensive HIV services and supply chain of HIV commodities. Quality and completeness of information are also a challenge to articulating the situation.

Viral hepatitis

Situation: Myanmar is one of the 28 countries that are regarded as WHO Priority Countries for viral hepatitis (VH) response. According to the national seroprevalence survey conducted among the general population in 2015, the prevalence of hepatitis B was 6.51% and that of hepatitis C was 2.65%. The Myanmar National Strategic Plan (NSP) 2016–2020 was developed in line with the WHO strategic directions as a roadmap towards elimination of viral hepatitis as a public threat by 2030. Childhood vaccination for hepatitis B is provided through EPI; completion of the third dose for all children under one year was reported to be reaching an average of 90% coverage annually, from 2016 to 2019.

The hepatitis C treatment programme was initiated in 2017. It mainly provides services at 13 public hospitals across eight states and regions. Since 2017, a total of 17 148 patients have started hepatitis C treatment, managed by the public sector and implementing partners, and 14 806 have completed the full course of treatment, as of September 2020(National AIDS Program).

Impact. With the current disruption in the public health system, diagnostic, treatment, investigation services and routine reporting system for hepatitis C are impacted and uptake of new enrolment is still limited. Childhood hepatitis B vaccination was catching up in 2022 with 70.75%, compared with 2021 with 37.18%. The National Strategic Plan I review is yet to be endorsed while NSP II is yet to be developed. Collaboration with the National AIDS Programme for hepatitis C treatment for PLHIV is starting and it will be able to provide treatment in the next quarter. Significant disruption in the provision of hepatitis C treatment had been reported during 2021–2022, there are no exact data available though.

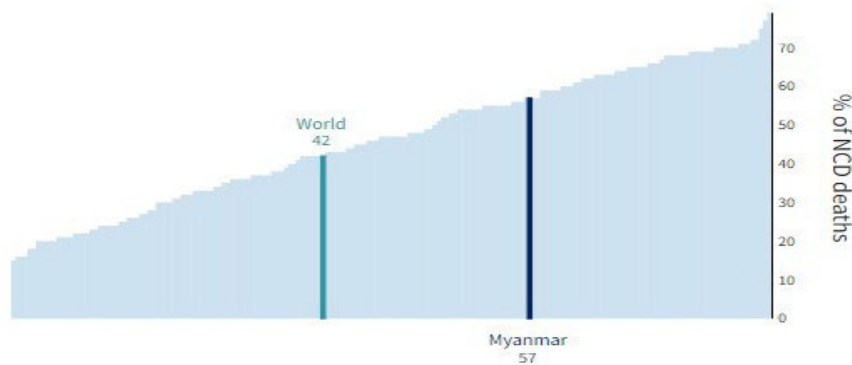
In addition, PWID can be more vulnerable to infectious diseases, such as HIV, hepatitis C (HCV) and tuberculosis, and poor mental health conditions. The inter-relationship among drug production, conflict and health of PWID is less well described. A recent study, investigating health outcomes and associated factors that include armed conflict and its consequences among people who use illicit drugs in Afghanistan, Colombia and Myanmar, found that access to effective harm reduction services in rural locations in Myanmar remained insufficient, creating conditions for a rapid rise in HIV and HCV (O'Brien, 2022).

- HIV treatment facilities are functioning better than in previous years. Yet, treatment response monitoring and comorbidity management are still limited in many places. The security situation, inflation and increase in fuel price are limitations for access to the HIV services, especially in conflict areas, and a hindrance to reaching the key population.
- The country needs to focus on management of advanced HIV disease, scaling up HIV self-testing and pre-exposure prophylaxis.
- TB preventive treatment (TPT) coverage is very low and needs to be scaled up.
- Public-sector hepatitis treatment facilities are gradually restoring their functions. There will be a provision of hepatitis C treatment for PLHIV at National AIDS program (NAP) and partners' facilities in 2023. The hepatitis B third dose vaccination rate had also been increased to >70% in 2022. Due to the political instability, the market price for diagnostics and treatment of hepatitis has increased. The current security situation and an increase in general living expenses due to inflation will further hinder access to treatment, especially for the key population. There is a need to improve access to hepatitis diagnostics and drugs.

Non communicable diseases (NCDs)

Situation: According to the latest available WHO NCD country profile for Myanmar, four major NCDs are estimated to account for 71% of all deaths with proportional mortality of 31% for cardiovascular diseases, 13% for cancers, 10% for chronic respiratory diseases and 6% for diabetes (WHO, 2020). Approximately one fourth (25%) of deaths occur between 30 and 70 years of age (31% male versus 20% female) and 57% occur under 70 years of age. Deaths due to NCDs are expected to increase by 21% over the next decade if effective prevention and control measures are not undertaken.

Fig. 16. Percentage of NCD deaths occurring under the age of 70 years



Source: (WHO, 2020)

In 2019, 1.67 million people were screened for NCD risk factors and among them, 205 495 diabetes and 429 400 hypertension cases were treated. During 2019–2020, anti-diabetic medication (metformin, sulfonyl urea), anti-hypertensive drugs (ACE inhibitors, ARBs, calcium channel blockers, beta blockers), cardiovascular drugs (aspirin, statins), bronchodilator, benzathine penicillin injection and HPV vaccination were available for prevention and control of NCDs at primary care facilities. More than 50% of health facilities were able to offer CVD risk stratification. There are 11 NCD-related programmes, including those pertaining to four major NCDs, the tobacco-free initiative project, the Myanmar epilepsy initiative project, injury prevention, the community-based-rehabilitation project and snake-bite control and deafness prevention projects, which are under implementation with technical and financial support mainly from WHO.

Impact: Due to the protracted COVID-19-related restrictions since mid-2020, along with the current humanitarian crisis and conflict situation, many NCD prevention and care activities, carried out by the public sector, are disrupted. In community-based settings, hypertension and diabetes clinics (Wednesday NCD Clinic) could not be opened for new case-finding and elderly health care for nearly one year. At the same time, for registered NCD patients, essential drug supply continues to be provided through the basic health staff (BHS). However, after February 2021, there have been serious risks, affecting the continuity of the essential drug supply.

Services at public hospitals were already limited to varying degrees because of COVID-19. These included outpatient services, inpatient services, emergency unit services, pre-hospital emergency care services, NCD diagnosis, treatment at hospital OPD clinics, treatment for mental health disorders, cancer diagnosis and treatment, dental services, rehabilitation services and 24-hour emergency room services for such emergencies as myocardial infarction, arrhythmia, stroke, diabetic ketoacidosis (DKA), asthma, chronic obstructive pulmonary disease (COPD), sepsis and serious injury. Such services from public hospitals became partially to fully disrupted since Feb 2021. For example, children with cancer had to be shifted from public hospitals to private facilities for continuation of treatment after the conflict began. Workforce inadequacy remained significant after resumption of services at the public hospitals. Availing support of competent personnel also faced challenges with regard to candidate selection and approval.

The World Health Survey plus the STEPS survey is important for updating the evidence-based information on NCD and risk factor monitoring in Myanmar. Its in-country implementation has been planned since 2019 and put on hold in 2020 due to COVID-19. Implementation looks unlikely this year.

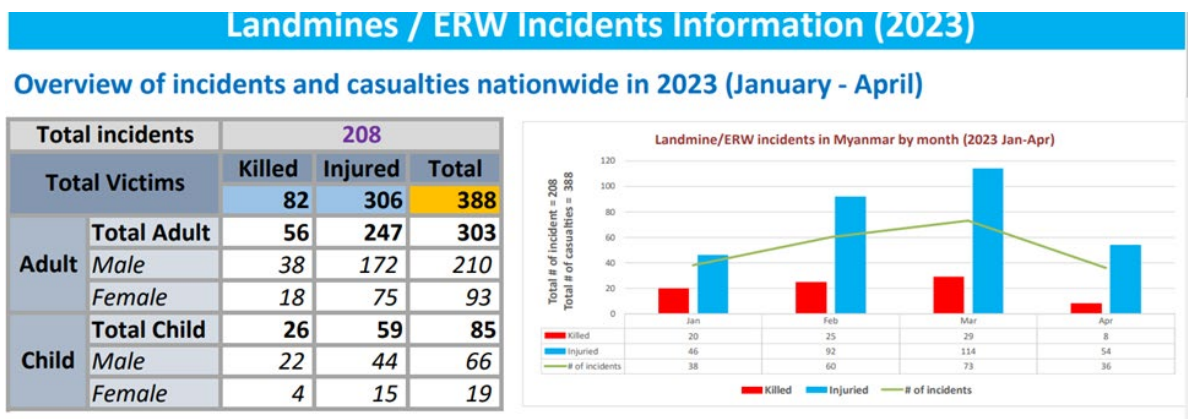
Violence and injury

Situation: According to Myanmar Health Statistics 2020, injury has been among the top causes of morbidity and mortality for more than a decade now. There is an increasing trend insofar as the total number of reported injury cases and deaths is concerned. The total number of reported cases increased from 370 000 in 2016 to 460 000 in 2019.

More than 80% of the total incidents were attributable to vehicle accidents (45%–51%), accidents on farms (16%–25%) and fighting (12%–14%) during these four years. Also, the number of deaths increased from 11 300 to 15 300, which corresponded to the increase in the death rate from 3.1% to 3.4% among cases. More than 75% of the injury deaths involved vehicle accidents (41%–43%), drowning (23%–24%) and suicides (13%–15%).

Landmines and explosive remnants of war (ERW): During the first quarter of 2023, as per the recent monitoring data on landmine ERW incidents from the United Nations Office for the Coordination of Humanitarian Affairs (OCHA, 14 June 2023), a total of 388 casualties have been reported nationwide. This figure already represents 99% of the total casualties reported in 2022 (390 reported).

Fig. 17. Landmines and ERW incidents information (2023)



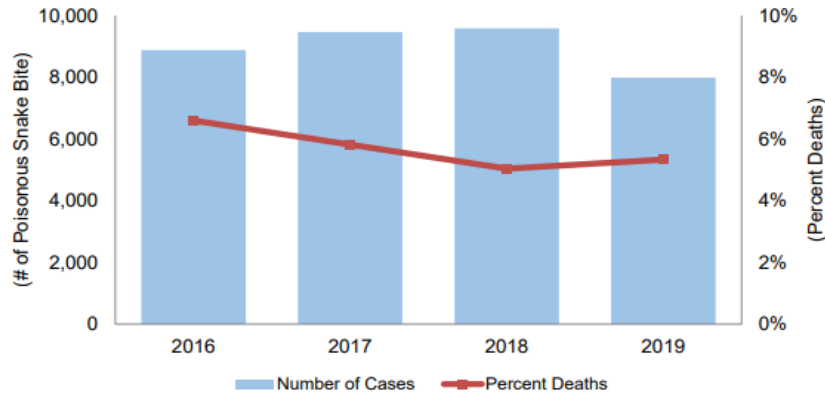
Source: <https://reliefweb.int/report/MMR/MMR-landmines-erw-incidents-information-january-april-2023>

Impact: Between February 2021 and April 2023, credible sources verified that at least 3452 persons had died at the hands of the armed forces and their affiliates; 21 807 individuals were arrested; and 5 839 were convicted without any respect for judicial guarantees. Additionally, 154 had been sentenced to death and four were known to be executed [[Assistance Association for Political Prisoners » Daily Briefing since Coup \(aappb.org\)](#)].

Snake bites

Situation: Snake-bites have been considered one of the major occupational hazards in rural areas of Myanmar for many decades (Ministry of Health, 2021) now. About 8000–10 000 poisonous snake-bite cases were reported annually from 2016 to 2019; 5% of those cases resulted in fatalities (Myanmar Ministry of Health, 2021). In 2014, the Myanmar Snake-bite Project was established with a joint collaboration between Myanmar and Australia to improve the antivenom production, provide training to health-care professionals in snake identification and proper management of snake-bite, and bolster the antivenom distribution (Patikorn C., Ismail A.K., 2022). However, interviews reveal that the antivenom distribution is still challenging due to the lack of a pharmaceutical logistic system in the country (Patikorn C., Ismail A.K., 2022). The Myanmar Pharmaceutical Industry Enterprise had inked an MoU with the Brazilian Cooperation Agency and the institute of Butatan for quality vaccine production support from 2023 to 2025.

Fig. 18. Number of snake-bite cases and associated deaths, Myanmar, 2016–2019



Source: Myanmar Ministry of Health, 2021

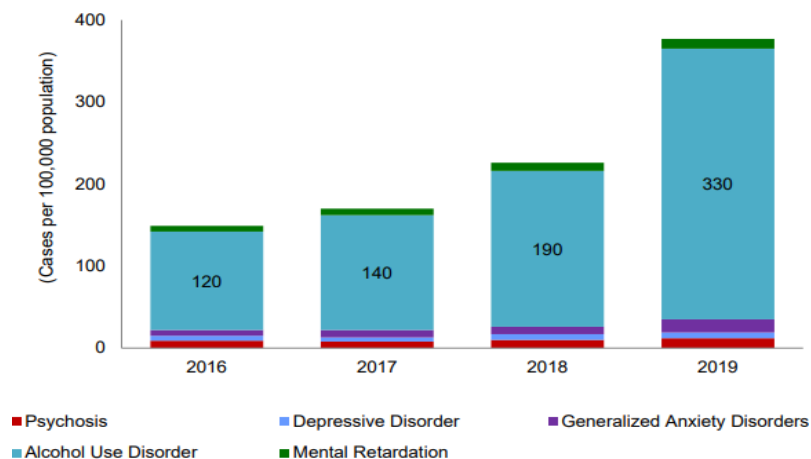
Impact: With many internally displaced persons (IDPs) living in temporary shelters, including new hidden areas in central dry zones and other places, there is a significant risk of contact between humans and animals (snakes), which can increase the number of fatal snake-bite cases. The overall difficulty in accessing and providing care in remote and hard-to-reach areas, along with hospitals having to pick up antivenoms from a central stockpile in countries, such as Myanmar, further exacerbates the situation.

Mental health

Situation: According to the Myanmar Ministry of Health Public Health Statistic Report for 2019, an increasing number of mental disorder cases were reported during the period stretching from 2016 to 2019 (Fig. 19) (Myanmar Ministry of Health, 2021). In 2019, the prevalence per 100 000 population was 330 for alcohol use disorder, 16 for anxiety disorder, 12 for mental retardation, 12 for psychosis and seven for depression (Myanmar Ministry of Health, 2021). A 2020 report indicated that the prevalence of mental distress was 18.0% for men and women, aged 18–49 years, from Yangon Region (Aye, 2020). The rate is higher for women (21.2%), compared with men (14.9%) (Aye, 2020). The Global School-based Student Health Survey (GSHS) 2016 data revealed that the prevalence of reported depressive symptoms among adolescents in Myanmar is 27.2% and that of suicidal ideation is 9.4%, both of which are substantially higher than the regional averages (Dominic Carroll, 2021).

Mental health data for adolescents in Myanmar are limited, with GSHS being the primary data source. Data from GSHS 2016 showed high prevalence estimates for depression (27.2%) and suicidal ideation (9.4%) among adolescents (13–17 years).

Fig. 19. Major types of mental disorders, Myanmar, 2016–2019



Source: (Myanmar Ministry of Health, 2021)

The same study indicated that 9% of adolescent students, aged 13–17 years, attempted suicide one or more times during the last 12 months and the reported prevalence of bullying was 50.1% (Dominic Carroll, 2021). Reports of violence include being in a physical fight with a peer (24.3%) and being physically attacked by someone other than a peer (32.7%) (Dominic Carroll, 2021).

Impact: While there is, currently, no single source of verified information, compiled for mental health concerns, the current crisis can severely affect mental health of individuals, including those directly experiencing violence. Likewise, loss of liberty and happiness as well as properties and livelihoods greatly increases the risk of developing depression. Risk of anxiety, post-traumatic distress syndrome and severe mental trauma may also increase. The impact may affect all age groups, and this may have short- and long-term consequences.

Due to the ongoing communication and internet disruptions, accessing online mental health services, even though they are available, is difficult for the public. Inability to access timely information can raise worries and anxiety, especially in resource-constraint settings. Disruption in daily routines, lack of sense of personal safety, destruction of such possessions as home, vehicles and shops, loss of income-generating activities and job insecurity, unavailability of mental health services at public hospitals, direct experience of death threats or serious injuries, threats to physical integrity or learning about unexpected or violent death, serious harm or threat of death or injury experienced by someone close and closure of community resources and facilities (including religious centres, childcare centres and welfare centres) may lead to psychological reactions, including grief, complicated bereavement and possibly post-traumatic stress disorder (PTSD).

The main challenges to mental health include:

- widespread stigma at the community level;
- poor investment and lack of human resources, needing urgent attention;
- training provided to health workers in mental health that is insufficient for effective service provision at the PHC level;
- need for standard operating procedures (SOP) for mental health services at the primary care level; and
- professional support provided in the current services that is inadequate, resulting in poor access to consultations and counselling services for mental health.

Natural environment and disaster

Situation: Myanmar has largely relied on exploitation of natural resources to sustain economic growth. Serious environmental issues are emerging; these include deforestation, depletion of inland and coastal fisheries, land degradation, flooding and landslides, biodiversity loss, and deterioration of water and air quality. Natural ecosystems, such as mangroves and forests, play an important role in mitigating the effects of various hazards; however, Myanmar's landscape is changing. Satellite imagery indicates that Myanmar is one of the 10 most deforested countries globally; mangroves, which are an important protective ecosystem in coastal areas, are now disappearing even more rapidly than other types of forests (Zaw Naing Tun, 2021).

Air quality is increasingly compromised as industrial and mining discharge and urban waste bring newer environmental health issues. Air pollution, a risk factor for death, is higher in Myanmar than in other countries of the Region and is almost twice the average for South-East Asia [World Bank, 2019 (1)].

For Myanmar youth, aged 5 to 14 years, particulate matter pollution is the leading risk factor for death, among all risk factors, including malnutrition and other behavioural risks [World Bank, 2019 (2)].

Myanmar has been identified as the second most natural disaster-affected country in the past 20 years, based on the average weighted ranking, released by the Climate Risk Index 2020. The country is already exposed to a multitude of hazards, including extreme temperatures, droughts, cyclones, flooding and storm surges, along with heavy rainfall events, and half of the population lives in a "multi-hazard" region (IFRC, 2021). In recent times, cyclones Nargis (2008) and Giri (2010), extreme heat waves (2010), flooding (2015 and 2018) and garbage fire (April 2018) in the Hlaingthayar township of Yangon have had disastrous impact on the people, environment and economy of Myanmar (WHO, 2020). This also holds true for Cyclone Mocha that wreaked havoc in 2023. Myanmar is also highly susceptible to

earthquakes, with a number of cities and major centres sitting on fault lines. Tremors are frequently felt in many parts of the country.

Impact: Cyclone Mocha hit Rakhine, Chin, Sagaing, Magway and Kachin on 14 May 2023 and affected 1.6 million people. Various water sources, including ponds, were contaminated by saline water. The risk of waterborne disease and vector-borne disease outbreaks increased, especially in areas with heavy rainfall. Loss of agricultural inputs and livestock posed a risk to food security.

The consequences of the cyclone go far beyond the physical destruction of houses and public infrastructure, with a range of safety risks also threatening the well-being of the affected population now. These risks include movement of unexploded ordnance (UXOs) in flooded areas, instances of sexual and gender-based violence, loss of civil documentation, looting, extortion and robbery. Such risks pose a direct threat to affected communities, potentially exacerbating negative coping mechanisms, such as high-interest borrowing and children begging due to the lack of job opportunities for their parents. This situation increases the likelihood of child labour, exploitation and abuse (OCHA, 29 May 2023).

4. Health system status and local health system disruptions

Pre-crisis health system status

Myanmar had made steady progress on reducing prevalence of communicable diseases, such as malaria and tuberculosis, and also showed remarkable progress with regard to key Sustainable development goals (SDG) targets of maternal mortality, newborn mortality and child mortality [UN Interagency Group for Child Mortality Estimation, Maternal, Newborn, Child and Adolescent Health and Ageing, WHO]. Myanmar's Universal health coverage (UHC) services coverage index had improved, from 49 in 2010 to 56 in 2020. Services coverage, presented on a scale of 0 to 100, encompasses tracer indicators that include reproductive, maternal, newborn and child health, infectious diseases, noncommunicable diseases and service capacity and access. Therefore, the improvement in the services coverage index mirrored MoH's success in the implementation of the first strategy of the National Health Plan (NHP) 2017–2021, i.e. expansion of access to services.

Meanwhile, available data indicate that Myanmar is yet to accelerate achievements towards implementing the second strategy of the current NHP, i.e. financial protection. The latest National Health Accounts confirmed that 76% of the current health spending in Myanmar is out-of-pocket on the part of families, as per the Global Health Expenditure Data Base in 2019 (https://apps.who.int/nha/database/country_profile/index/en). Although it was found to be lower than that in the previous periods, it stands as one of the highest in the Region. In 2017, an estimated 324 000 people were pushed to poverty due to health-care expenditure while 14.4% of households used more than 10% of their available spending on health, incurring what is known as catastrophic health expenditure.

Human resources for health situation: The combined proportion of doctors, nurses and midwives resulting in a density of 17.8 health workers per 10 000 population in Myanmar was observed during the pre-2021 period. WHO suggests an average density of 22.8 health workers per 10 000 population to deliver a package of health services, compatible with the health Millennium Development Goals (MDGs). A decade later, the estimates had almost doubled to 44.5 health workers per 10 000 population to adapt services to the standards of the Sustainable Development Goals (SDGs). However, Myanmar is yet to reach those benchmarks in terms of health workforce density per 10 000 population. Comparing health worker densities across countries in the South-East Asia Region and with the thresholds just described, Myanmar is one of the countries with the lowest health worker availability; it is only above Bangladesh. Beyond the overall limited availability of human resources in the system, deployment is also suboptimal since it is based on norms linked to facility nomenclature and size rather than on need or performance. The resulting allocation leads to insufficient personnel in some areas and exceeding capacity in others, along with inadequate skill mix, as proven by the limited number of complete critical care teams to run ICU beds during the COVID-19 crisis.

In crisis health system status:

Previously established monitoring systems, such as District Health Information System 2 (DHIS 2), that enable an evidence-based analysis to determine the functionality of the current health system, are non-functional. As a result, alternative, ad hoc monitoring systems were developed by WHO Country Office team to monitor access to health

services. The data had been collected by observation from 360 townships by WHO field-based staff and Myanmar Country Office staff since April 2021. WHO, in collaboration with the World Bank, has conducted a phone survey across Myanmar to analyze the current situation regarding access to health care and medicines, and private sector providers' response. Increased challenges to availability and affordability of essential medicines were observed while difficulties in transporting supplies to conflict-affected areas were also noticed.

In crisis human resource status: Like in other countries, the COVID-19 pandemic affected medical and allied health professional universities and training schools across Myanmar. This resulted in closure of all training institutions throughout the year 2020 with no graduation of the health workforce cadres, adding to the constraints. Moreover, health workers were among the first to express dissent with regard to the military takeover through civil disobedience; this involved 50% of the health workforce in the public sector^{1 2}. This translated into a significantly reduced health workforce in the public sector. The National Health Workforce Account could not be updated due to limitation in engagement with the de facto authority since 2021.

In crisis access to health care: Combined effects of disruption in delivery of health services, conflict and affordability issues in conflict-affected areas are witnessed. Since February 2021, more than 385 attacks on health care have been documented via the [WHO's Surveillance System for Attacks on Health Care \(SSA\)](#). These attacks have led to at least 58 deaths and 188 injuries. Each attack is deeply concerning as it affects access to and availability of essential health services – especially for women, children and other vulnerable groups (WHO, 2023).

To some extent, the COVID-19 pandemic had disrupted health-care services before the military takeover. However, Myanmar was able to manage the first two waves of COVID-19. During the third wave, which occurred between July and October 2021, the already burdened health system had to face additional crises, such as serious human resource shortages, closure of public health facilities (including COVID-19 treatment centres), and challenges to personal safety due to the unexpected political situation (Kyaw, 2023). Humanitarian and post-COVID-19 crises have made health-seeking preferences gravitate towards the private sector. The barrier to access to health and service provision due to high pharmaceutical prices and shortage of health-care workers in the public sector was also observed.

In Myanmar, people are facing heavily restricted access to formal health services, including those run by public hospitals and de facto government clinics. Moreover, a large share of households continues to depend on health-care services that are provided by private health-care facilities while self-care remains a key approach adopted by them. Additionally, ethnic health organizations (EHOs) continue to fill significant gaps in health-care provision. Lack of primary health care in villages, high cost of secondary health care at hospitals and movement restrictions in availing tertiary health care in capital cities continue to hinder access to health services. These restrictions are causing life-threatening suffering, notably mental and psychosocial burden, and death from medical emergencies. Minorities and other ethnically vulnerable populations continue to face severe constraints and a fragmented health-care system in the wake of COVID-19 and the political changes in February 2021. Although Myanmar was hit by the deadliest wave of COVID-19 during June–September 2021, severely disrupting health sector functioning, the third and fourth waves in 2022 continued to put the health system under strain. The health system was crippled by a limited bed capacity, challenges to making oxygen and essential medicines available, and an inadequate health workforce, leading to excess death and disability. However, since then, the testing capacity and the vaccination rate have increased, which in turn have improved the level and development of seroprevalence.

Apart from the continued attacks on health facilities, limited skilled workforce in the government health system – several of them had discontinued their assignments with the de facto authority-led health-care facilities – remains a key issue. Nearly half of the population (46%) is reported to be facing poverty. This has serious repercussions for the cost of health care. In view of the significant shortage of key essential medicines, continuing supply chain disruptions, customs restrictions and a raging inflation (about 20% in 2022–2023) have put access to health care beyond the reach of the common people, especially in conflict-affected areas. Budget squeeze due to continued depletion of tax revenue has resulted in budget cuts for the health sector. During 2023–2024, government spending on health declined to levels that were seen a decade ago (MMK 1 329 202 million – USD 632 million in 2023–2024 as against

¹ [Global New Light of Myanmar](#)

² <https://myanmar-now.org/mm/news/13925>

MMK1 363 362 million- USD 648 million in 2013–2014). This worked out to -36% decline in 2022–2023 and -7% reduction over the previous year in budget allocation. This could have pushed more people to medical impoverishment, leading to catastrophic payment for health care by the economically vulnerable population.

A total collapse of the health management information system (HMIS) in the public sector, especially after COVID-19, and the subsequent civil disobedience movement have resulted in a scenario, wherein availability of data is constrained. In the absence of a new Census and with already crumbling Civil Registration and Vital Statistics (CRVS) activities, data availability with regard to cause of death and even birth, and mortality has been the casualty of the ongoing tussle. On top of it, health programmes, including those related to malaria, TB and HIV/AIDS, have sustained serious reverses in collection and analysis of data that are often required to routinely monitor infectious diseases and their prevention and control. Declaration of a new Registration Law, mandating civil society organizations including health facilities and associations in 2022, has forced a sizeable number of NGOs to either shut down or partially close operations. The new law has crippled their functions, restricting access to financial resources from donors, in a considerable manner.

Stateless people in Rakhine are facing heavily restricted access to formal health services, including those run by public hospitals and de facto government clinics. In particular, lack of primary health care, high cost of secondary health care at hospitals and movement restrictions in availing tertiary health care in capital cities continue to hinder access. These restrictions are causing life-threatening suffering, notably mental and psychosocial burden, and death from medical emergencies. The prevalence of global acute malnutrition (GAM) and severe acute malnutrition (SAM) in Rakhine State before the 2017 violence was exceeding the emergency nutrition thresholds under the WHO standard classification criteria. Infants and children under five years are the most vulnerable groups, needing nutritional care.

Disruptions in supply chain

International and domestic supply chains have been significantly affected by the military takeover. Land and air transportation are severely hampered and, in some instances, have come to a complete standstill. Security threats to drivers, road closures, checkpoints, drivers and warehouse staff, all contribute to the inefficiency of Myanmar supply chains. The lack of reliable data and systems to make proper projections and forecast aggravates the situation. Hence, availability of essential medicines, family planning commodities, technical commodities and supplies for prophylaxis, diagnostics and treatment is affected by disruptions in the supply chain, particularly in the hard-to-reach and conflict-affected townships.

5. Humanitarian health response (3/4/5 Ws Matrix)

The Health Cluster Partner Coordination is present at the national level and in the four humanitarian areas: 1. Rakhine, covering Rakhine and Southern Chin (Paletwa) with a hub situated in Sittwe; 2. North-east, covering Kachin and Northern Shan with a hub situated in Myitkyina; 3. North-west, covering Chin (excl. Paletwa), Magway, Mandalay and Sagaing with a hub situated in Mandalay; 4. South-east covering Bago, Eastern and Southern Shan, Kayah, Kayin, Mon, Tanontharyi with two hubs situated in Hpa-An and Taunggyi. This includes 47 health implementing partners – 30 international NGOs, 11 national NGOs and 6 UN agencies present across the country.

The Humanitarian Response Plan 2023 was published by OCHA in January 2023. The Health Cluster estimated that 10 million people were in need of humanitarian health assistance, of which 2.3 million were targeted, prioritizing the four most affected and vulnerable population groups: displaced, returned, stateless and other crisis-affected people. This is similar to the 2022 response strategy, although with targets that are substantially more ambitious

The Health Cluster aimed at reducing and preventing suffering, morbidity and mortality of crisis-affected, displaced, returned and stateless people, who are experiencing or are at risk of health threats across three cluster objectives, namely:

CO1: Reduce and prevent suffering, morbidity and mortality through timely detection of and coordinated response to 100% of notifications for outbreaks of epidemic-prone diseases, such as malaria, diarrhoea, acute respiratory

infections and vaccine-preventable illnesses.

CO2: Improve the availability and accessibility of primary health services, among 403 036 displaced, 28 959 returned, 36 149 stateless and 1 824 267 crisis-affected people through basic and complementary packages, including maternal, child and adolescent health, sexual and reproductive health, mental health and psychosocial support (MHPSS), health-related GBV services, illnesses such as tuberculosis (TB) and HIV, disability, emergency surgical care, trauma and referrals.

CO3: Strengthen the capacity of 43 health partners for accurate and timely data collection and reporting for displaced, returned, stateless and crisis-affected people, disaggregated by age, sex and disabilities, to inform decision-making.

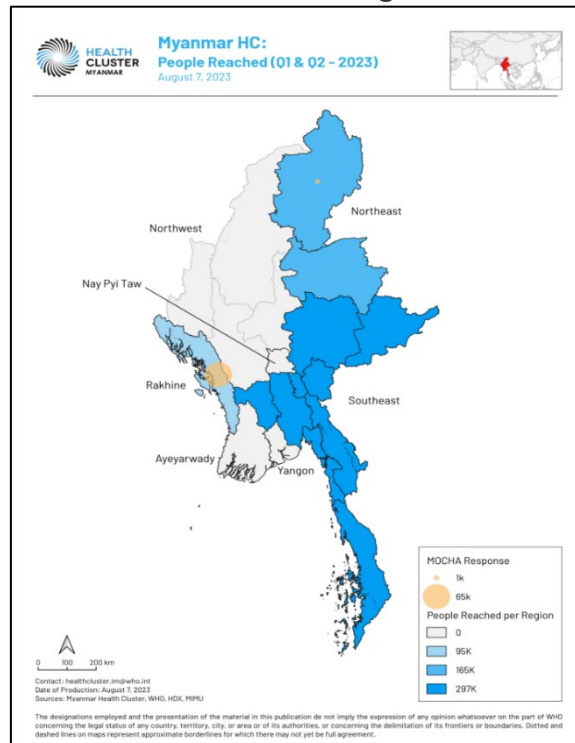
Table 4. Midyear report for the Humanitarian Response Plan 2023

TOTAL	Woman %	Children %	Adult %	Elderly %	Displaced %	Returned %	Stateless %	Other crisis-affected %
558 163	62.6	31.3	57.0	11.7		31.3	57.0	11.7

Achievements

The Health Cluster has reached 558 163 people in need since January 2023, representing 22.3% of the overall 2023 target of 2.5 million people in need. It represents a little more than a 30% increase in the number of people reached in the same period in 2022 (N=427K). The highest number of people have been reached in Kayin (26.8% of total), Kachin(22.9% of total) and Rakhine(17.0 % of total). Ninety-seven percent of the people reached were either displaced (270 812) or crisis-affected, other than those displaced, returned or stateless (270 907). More particularly, the cluster reached 66 696 people, living in the highest-impact zone of Cyclone Mocha.

Map 1. Myanmar HC: People reached (Midyear Review 2023), produced by the Myanmar Health Cluster, 7 August 2023



The highest number of health services delivered were related to the health services basic package, including maternal, child and adolescent health, sexual and reproductive health, mental health and gender-based violence, and the health services complementary package for rehabilitation services and provision of assistive devices for persons with injuries and different forms of impairment. While the number of people reached has increased, the health services remain intermittent and below the standard of care in several areas due to legal, administrative and security constraints.

The Cluster has verified all 58 suspected events reported since January 2023 in the Early Warning, Alert and Response System (EWARS), implemented in Rakhine and Kachin. Please refer to the [EWARS standard operating procedures](#) for the list of events, reported in the EWARS connector (mohs.gov.mm). The Cluster has also provided trainings, five in number, to partners since January 2022: on 4/5W and EWARS reporting, and on cholera readiness response.

Finally, the Cluster has increased its coordination capacity with expanded staffing in North-west and South-east in 2022, leading to more meaningful engagement in the field and increased participation of local partners in a transition in 2023 towards a more localized model of humanitarian response in Myanmar.

Challenges

The health services remain significantly impacted by the increasing conflicts and security and economic stress. While a reversal in the trend in the provision of services is observed in some large cities, such as Nay Pyi Taw and Yangon, since the pandemic and the events of February 2021, the overall access to health services remains severely constrained and fragmented, with a heavy reliance on local partners supporting their own communities.

Health facilities, workers, patients and transport have continued to be the targets of attacks. In the first half of the year, 37 attacks on health care have been documented via the WHO Surveillance System for Attacks on Health Care (SSA). These attacks have led to at least five deaths. Fewer in number, compared with 2021, each attack remains deeply concerning; it is affecting access to and availability of essential health services, especially for women, children and other vulnerable groups. The UN High Commissioner for Human Rights has reported that 13–40 humanitarian workers have been killed; 17–28 wounded; and between 43 and 212 individuals arrested. It is likely that these figures represent a mere fraction of the reality on the ground. Despite analytical limitations, it is evident that national actors are the most exposed as they account for all casualties, highlighting the continuous personal risks they face when alleviating the plight of victims [A-HRC-53-52-AdvanceUneditedVersion.docx (live.com)].

Nexus

During the first half of the year, the Health Cluster continued advocating for the depoliticization of the health sector as a national as well as a global investment in the health and well-being of the population. While participating in the common humanitarian development platforms (Health Cluster, Transitional Cooperation Framework, and inter-agency projects), in 2023, the Cluster is making extra efforts on the ground, with the development actors, for restoring timely and effective public health services and referrals for primary and secondary care.

6. Information gaps and information sources

The Health Cluster is working across the core information product of the public health information service, namely:

Relative to health status and threats:

- EWAR: Early warning, alert and response
- PHSA: Public health situation analysis
- SSA: Surveillance System on Attacks on Health Facilities.

Relative to health resource and services availability:

- 3/4/5Ws
- Partners list.

Relative to health system performance:

- Health Cluster Bulletin.

7. Key references

- ACAPS. Briefing Note: Myanmar - Update on the post-coup humanitarian situation (04 May 2023). <https://reliefweb.int/report/myanmar/acaps-briefing-note-myanmar-update-post-coup-humanitarian-situation-04-may-2023>
- Aye, W. L. (2020). The prevalence of mental distress and the association with education: a cross-sectional study of 18-49-year-old citizens of Yangon Region, MMR. . BMC Public Health, <https://bmcpublikealth.biomedcentral.com/articles/10.1186/s12889-020-8209-8#citeas>.
- Dickson BFR, Graves PM, Aye NN, Nwe TW, Wai T, Win SS, et al. (2018) The prevalence of lymphatic filariasis infection and disease following six rounds of mass drug administration in Mandalay Region, Myanmar. PLoS Negl Trop Dis 12(11): e0006944. <https://doi.org/10.1371/journal.pntd.0006944>
- Disability care in Myanmar, Dr. Myo Ko Ko Zaw, Program manager, National Leprosy Control Program, Ministry of Health and Sports, Myanmar. Global Consultation on GLS.2020. <https://www.who.int/docs/default-source/ntds/leprosy/global-consultation-on-global-leprosy-strategy-2021-2030/14-disability-care-myanmar.pdf>
- Dominic Carroll, N. W. (2021). Mental health of adolescents in MMR: A systematic review of prevalence, determinants and interventions. Asian Journal of Psychiatry, <https://www.sciencedirect.com/science/article/pii/S1876201821001064>
- Ellis, R. D. (2006). Causes of fever in adults on the Thai-MMR border. The American journal of tropical medicine and hygiene, 74(1), 108-113. <https://pubmed.ncbi.nlm.nih.gov/16407353/>
- Kyaw HK, Than KK, Diaconu K and coll. Community stressors and coping mechanisms in accessing the health system during a double crisis: a qualitative case study from Yangon Region, Myanmar. International Journal for Equity in Health 2023. <https://equityhealth.biomedcentral.com/articles/10.1186/s12939-023-01851-4>
- HIV AIDS Asia Pacific Research Statistical Data Information Resources, <https://aphub.unaids.org/>
- IFRC. (2021, April). Climate Centre. Retrieved from CLIMATE CHANGE IMPACTS ON HEALTH AND LIVELIHOODS: MMR: https://www.climatecentre.org/wp-content/uploads/RCRC_IFRC-Country-assessments-MYANMAR-V7.pdf
- MMR Demographic and Health Survey 2015-2016 https://themimu.info/sites/themimu.info/files/documents/Survey_Demographic_Health_Survey_2015-16.pdf
Myanmar GBV Subcluster Partners Response Monitoring Progress 2023: [Microsoft Power BI](#)
- MMEIG. (2019). United Nations. Retrieved from TRENDS IN MATERNAL MORTALITY 2000 to 2020: <https://www.who.int/publications/i/item/9789240068759>
- Myanmar Institute for Strategy and Policy. (2022, Sep 20). Over 7,000 Civilian deaths since the military Coup: <https://www.ispmyanmar.com/isp-data-matters/#images-101>
- MMR Ministry of Health. (2021). PUBLIC HEALTH STATISTICS. 2017 - 2019. Internal Document.

MoHS. Myanmar Health Statistics 2020. Available from:

https://www.themimu.info/sites/themimu.info/files/documents/Report_Myanmar_Health_Statistics_2020_MOHS_Oct2020.pdf

Myo Ko Ko Zaw, Srinath Satyanarayana, Kyaw Ko Ko Htet, Kyu Kyu Than, Chan Tun Aung (2020); Is Myanmar on the right track after declaring leprosy elimination? Trends in new leprosy cases (2004–2018) and reasons for delay in diagnosis; *Leprosy Review*; 2020; 91; 1; 25-40; DOI: [10.47276/lr.91.1.25](https://doi.org/10.47276/lr.91.1.25)

O'Brien, S. J. (2022). Determinants of health among people who use illicit drugs in the conflict-affected countries of Afghanistan, Colombia and MMR: a systematic review of epidemiological evidence. *Conflict and Health*. BMC. <https://conflictandhealth.biomedcentral.com/articles/10.1186/s13031-022-00467-9>

OCHA. Myanmar Humanitarian Response Plan 2023. New York Office for the Coordination of Humanitarian Affairs 2023. Available from: <https://reliefweb.int/report/myanmar/myanmar-humanitarian-response-plan-2023-january-2023>.

OCHA. (2022, September 2). United Nations Office for the Coordination of Humanitarian Affairs. Retrieved October 12, 2022, from MMR Humanitarian Response Plan 2022 Mid-Year Report (1 January to June 30): <https://reliefweb.int/report/myanmar/myanmar-humanitarian-response-plan-2022-mid-year-report-1-january-june-30#:~:text=Forced%20recruitment%20%E2%80%93%20including%20of%20children,arrests%20are%20of%20grave%20concern>.

OCHA. (2023, May 29). Relief Web. Retrieved June 28, 2023, from Cyclone Mocha Situation Report No.2 <https://reliefweb.int/report/myanmar/myanmar-cyclone-mocha-situation-report-no2-1400-29-may-2023-enmy>

OCHA. (2023, June 8). Relief Web. Retrieved June 28, 2023, from MMR: Landmines / ERW Incidents Information (January - April 2023) | 8 June 2023: <https://reliefweb.int/report/myanmar/myanmar-landmines-erw-incidents-information-january-april-2023-enmy>

OHCHR (2023, March 9). United Nations Human Rights Office of the High Commissioner. Situation of human rights in Myanmar - Report of the Special Rapporteur on the situation of human rights in Myanmar. <https://www.ohchr.org/en/documents/country-reports/ahrc5266-situation-human-rights-myanmar-report-special-rapporteur>

OHCHR. (2022, October 3). United Nations Human Rights Office of the High Commissioner. Report of the Special Rapporteur on the situation of human rights in MMR: <https://www.ohchr.org/en/documents/country-reports/a77494-report-special-rapporteur-situation-human-right-myanmar>

Patikorn C, Ismail AK., (2022). Situation of snakebite, antivenom, market and access to antivenoms in ASEAN countries. *BMJ Global Health*, <http://dx.doi.org/10.1136/bmjgh-2021-007639>

Philip N.D. Elders, M. M. (2021). Serological evidence indicates widespread distribution of rickettsioses in Myanmar. *International Journal of Infectious Diseases*, 494-501. [https://www.ijidonline.com/article/S1201-9712\(20\)32536-4/fulltext](https://www.ijidonline.com/article/S1201-9712(20)32536-4/fulltext)

Scott, N. W. (2021). Hepatitis C elimination in MMR: Modelling the impact, cost, cost-effectiveness and economic benefits. *The Lancet regional health. Western Pacific*,

[https://www.thelancet.com/journals/lanwpc/article/PIIS2666-6065\(21\)00038-9/fulltext](https://www.thelancet.com/journals/lanwpc/article/PIIS2666-6065(21)00038-9/fulltext)

SEAOHUN. (2022). Seropositivity of Leptospirosis and related occupational and environmental factors in Myanmar published 27 December 2022 accessible at <https://www.seaohun.org/single-post/seropositivity-of-leptospirosis-and-related-occupational-and-environmental-factors-in-myanmar>

The Republic of the Union of Myanmar. (2016). The 2014 Myanmar Population and Housing Census. Thematic Report on Maternal Mortality.

<https://myanmar.unfpa.org/en/publications/thematic-report-maternal-mortality>

The Republic of the Union of Myanmar. (2016). The 2014 Myanmar Population and Housing Census. Thematic Report on Population Dynamics.

<https://myanmar.unfpa.org/en/publications/thematic-report-population-dynamics>

UNAIDS. (2021). UNAIDS data dashboard. Retrieved June 30, 2023, HIV AIDS Asia Pacific Research Statistical Data Information Resources - AIDS Data Hub. <https://www.aidsdatahub.org/>

UNAIDS. (2021). Global AIDS Monitoring Report (2022). Retrieved June 30, 2023, Indicators and questions for monitoring progress on the 2021 Political Declaration on HIV and AIDS — Global AIDS Monitoring 2022 (unaids.org). <https://digitallibrary.un.org/record/3956607?ln=en>

UNDSS. (2023). United Nations Department of Safety and Security Travel Advisory.

Retrieve September 1 2023, from MMR Emergency Information: <https://dss.un.org/Travel-Advisory>

UNFPA Myanmar news <https://myanmar.unfpa.org/en/news/%E2%80%9Ci-want-my-baby-safe-all-i-need%E2%80%9D-supporting-women-and-girls-myanmar-after-cyclone-mocha-tears-0>

UNHCR. (2022, July 13). Rohingya Refugee Crisis Explained.

<https://www.unrefugees.org/news/rohingya-refugee-crisis-explained/>

UNHCR. (2022, October 3). UNHCR REGIONAL BUREAU FOR ASIA AND PACIFIC (RBAP).

<https://reporting.unhcr.org/document/3316>

United Nations Inter-Agency Group for Child Mortality Estimation. Levels and Trends in Child Mortality. Report 2022.

<https://data.unicef.org/resources/levels-and-trends-in-child-mortality/>

United Nations Inter-Agency Group for Child Mortality Estimation. Never Forgotten: The situation of stillbirth around the globe. Report 2022. <https://data.unicef.org/resources/never-forgotten-stillbirth-estimates-report/>

UNICEF. (2023, July). Myanmar. Humanitarian Situation report no. 4:

<https://reliefweb.int/report/myanmar/unicef-myanmar-humanitarian-situation-report-no-4-1-may-30-june-2023>

UNICEF. (2022) Keeping children Healthy

<https://www.unicef.org/myanmar/responding-emergencies/delivering-children-time-crisis>

UNICEF. (2022) Conflict-affected adolescents change their and others' lives in Kachin, Myanmar
<https://www.unicef.org/myanmar/stories/conflict-affected-adolescents-change-their-and-others-lives-kachin-myanmar>

UNICEF. (2022, September). MMR. Retrieved October 12, 2022, from Humanitarian Situation Report No. 8:
<https://www.unicef.org/media/128656/file/MMR-Humanitarian-SitRep-%20September-2022.pdf>

WHO. Trends in maternal mortality 2000 to 2020: estimates by WHO, UNICEF, UNFPA, World Bank Group and UNDESA/Population Division. Geneva; WHO 2023. 108 p.
<https://www.who.int/publications/i/item/9789240068759>

WHO. (2018) Report of the second Global School-based Student Health Survey (2016) in Myanmar. World Health Organization. Regional Office for South-East Asia.
<https://apps.who.int/iris/handle/10665/274350>

WHO. (2020, September 10). Climate change & health.
https://cdn.who.int/media/docs/default-source/searo/myanmar/climate-change-and-health-factsheet.pdf?sfvrsn=6608b8ea_0

WHO. (2015). Climate and Health Country Profile-2015. Myanmar
<https://apps.who.int/iris/rest/bitstreams/1031358/retrieve>

WHO. (2020). COVID-19 Dashboard.
<https://worldhealthorg.shinyapps.io/covid/>

WHO. (2022-2023) Mpox Outbreak.
https://worldhealthorg.shinyapps.io/mpox_global/

WHO. (2020). NCD Data Portal.
<https://ncdportal.org/CountryProfile/GHE110/MMR>

WHO. (2022). HIV Country Profile 2022. Myanmar
<https://cfs.hivci.org/>

WHO. (2022). Integrated Regional Action Plan for viral hepatitis, HIV and sexually transmitted infections in South-East Asia, 2022–2026.
<https://apps.who.int/iris/handle/10665/361834>

WHO. (2022). Immunisation coverage. Retrieved June 30, 2023.
[https://www.who.int/data/gho/data/indicators/indicator-details/GHO/hepatitis-b-\(hepb3\)-immunization-coverage-among-1-year-olds-\(-\)](https://www.who.int/data/gho/data/indicators/indicator-details/GHO/hepatitis-b-(hepb3)-immunization-coverage-among-1-year-olds-(-))

WHO. (2022). MMR national influenza programme: influenza factsheet 2021.
<https://apps.who.int/iris/handle/10665/363355>

WHO SEAR. (2021). Expanded programme on immunization (EPI). Myanmar 2021 factsheet
<https://apps.who.int/iris/handle/10665/349285>

World Bank. Myanmar Economic Monitor: A Fragile Recovery – June 2023. The World Bank East Asia & Pacific 2023. <https://www.worldbank.org/en/country/myanmar/publication/myanmar-economic-monitor-june-2023-a-fragile-recovery-key-findings>

World Bank, 2019. Myanmar Country Environmental Analysis. <https://www.worldbank.org/en/country/myanmar/publication/myanmar-country-environmental-analysis>

Zaw Naing Tun, Dargusch, P., McMoran, D., McAlpine, C., and Hill, G. (2021). Patterns and Drivers of Deforestation and Forest Degradation in Myanmar. 2021 Sustainability 13, no. 14: 7539. <https://doi.org/10.3390/su13147539>

Zaw W, Lin Z, Ko Ko J, Rotejanaprasert C, Pantanilla N, et al. (2023) Dengue in Myanmar: Spatiotemporal epidemiology, association with climate and short-term prediction. PLOS Neglected Tropical Diseases 17(6): e0011331. <https://doi.org/10.1371/journal.pntd.0011331>

8. Contacts

From the WHO

Dr Gabriel Eduardo SIERRA NOVELO
WHE Team Lead
novelog@who.int

Dr Mya YEE MON
WHE, Disease Surveillance and Epidemiology
yeemonm@who.int

Myanmar Health Cluster

Dr Ann Fortin
Health Cluster Coordinator
afortin@who.int
+95 09 4012 7722

Mr. AGUILAR RAMIREZ, Luis Hernando
Senior Information Management Officer
aguilarl@who.int

Mr. ROS MARTINEZ, Antoni
Information Management Officer
anmartinez@who.int