Medical Action Myanmar

To improve access to health care for people in Myanmar

Activity Report

2021

We supported COVID centres wherever we could find a counterpart with space to set up oxygen beds. Picture; near Inya Lake, in Shan state.

Contents

MAIN EVENTS OF 2021

Output of 2021
- 12 clinics and 2,000 village health workers
- 17 COVID treatment centres with 805 beds
- 1,069 routine staff and 304 extra COVID staff
- 1,314,405 patient consultations

The year 2021 was exceptionally difficult because of 2 major events; On the 1st of February the military took over power from the government, followed by large demonstrations, a country-wide "civil disobedience movement" (strike) and wide spread violence. In July, this was followed by a massive COVID-19 outbreak. Besides serious consequences for security and the socio-economic situation, these events had a major impact on health.

Medical calamities.

A large part of the government health staff joined the strike and, as a consequence, most hospitals were, and still are, not or only partially functioning. Many patients could not get admitted to a hospital for emergency care or surgery (!) and some patients on long-term treatment (HIV, TB), could not get access to treatment. This was an acute medical crisis. MAM continued to supply medical services, but our services are, of course, limited.

COVID outbreak.

On top of this very bad medical situation, COVID struck with a very severe outbreak. Myanmar's population had very low COVID immunity at the start of this wave. The vaccination coverage was low (3%), and the population acquired little natural immunity from earlier waves, which were very small. The highly infectious COVID *delta* variant could spread extremely fast with dramatic consequences. Any country would have a very serious problem to deal with an outbreak of this proportion. The weakened medical system made it worse.

- ***Treatment of severely ill COVID patients.***

MAM linked up with local organisations who had the physical space to set up large oxygen treatment wards, but who did not have the staff and medical supplies to deal with the patients. We hired and trained 300 additional medical staff in 4 weeks and bought all oxygen concentrators and medicines we could find on the local market. The first admission was on the 3rd of July, in Sagaing, on the border with India. After that the number of patients rapidly increased and we expanded support to 18 treatment centers, with 805 oxygen beds all over the country. Within days all beds were occupied and many patients were on a waiting list. Some people got treatment at home and for them MAM could provide an "oxygen-concentrator" on loan and medical advise by phone from MAM doctors.

Institutionals donors (Global Fund a.o.) provided substantial funding, but their procedures were rigid (not allowed to buy locally) and slow (most of their medical supplies arrived *after* the outbreak) and not suitable to deal with an urgent outbreak. Therefore we depended largely on the donations of private donors. During the outbreak in 2021 we supported treatment of 2,647 severely ill patients (oxygen saturation <90%) of whom 80% survived.

Emergency response.

The ramifications of COVID and the bad security situation were massive. Workplaces were closed, jobs lost, people had no income and no financial buffer and families could not feed themselves. In many areas people escaped armed conflict and moved to the forest or monastries & churches.

MAM started to provide food, blankets and other supplies to the most vulnerable families. In 2021, we reached 17,875 people with emergency support.

Routine MAM activities.

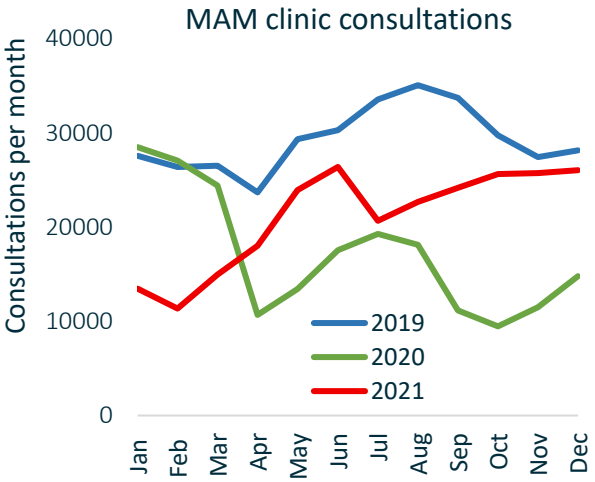
While numerous NGOs closed their operations or decreased their activities, for fear of armed conflict and COVID, MAM staff continued all routine activities, in addition to the COVID and emergency response. The clinics remained open and the Village Health Workers in remote communities were supported and supplied. On several occasions, the towns or townships (in Yangon) where they were based, were attacked, and staff had to be evacuated. While doing routine monitoring of VHW activities, MAM staff were arrested for several days on suspicion of supporting the opposition (and released when it was clear there was no ground for that accusation). We had to make bunkers for safety during intense fighting at several locations, including for the orphanage in Yangon. Supply routes were blocked and offices had to be relocated. But the staff always found a way out to guarantee that the medical activities continued. We are immensely grateful for the determination the staff have shown.

– ***Clinics.***

The total number of clinic consultations, which is routinely around 350,000, decreased substantially in 2020 (200,000) and 2021 (250,000). Patients were reluctant to visit the clinics because of a fear of COVID and security risk. To avoid that patients had to spend long hours in the clinic, doctors, nurses and counsellors tried to find solutions to decrease the time and the frequency of clinic visits.

When possible patients were contacted by phone for a follow up consultation, and chronic patients were supplied with medicines for a longer duration. Counseling was often done on-line.

MAM enrolled an additional 2,000 HIV patients and TB patients who were previously on treatment in government hospitals. Because of the lack of staff

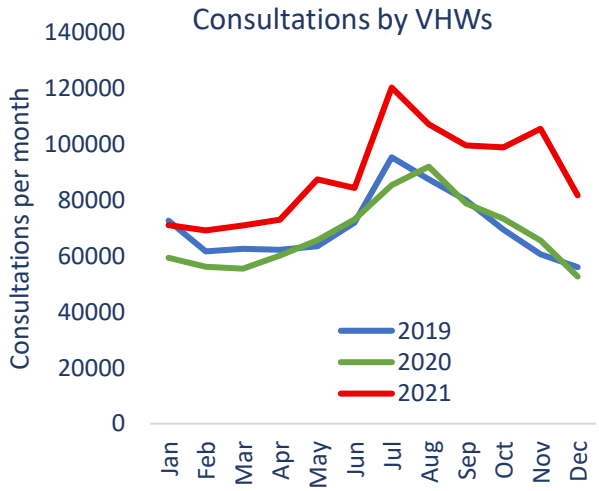


and services in the government hospitals they had no access to treatment.

To avoid that patients had to interrupt their treatment, MAM treat them up untill the moment they can return to their usual treatment center.

– ***Village Health Workers (VHWs).***

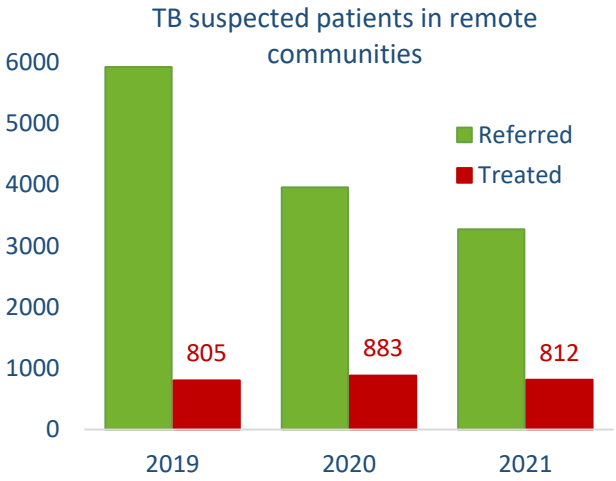
The number of VHW consultations in 2021 was over 1 million (!). This was a substantial increase compared to previous years and the community based services appeared to be “COVID and security threat resistant”.

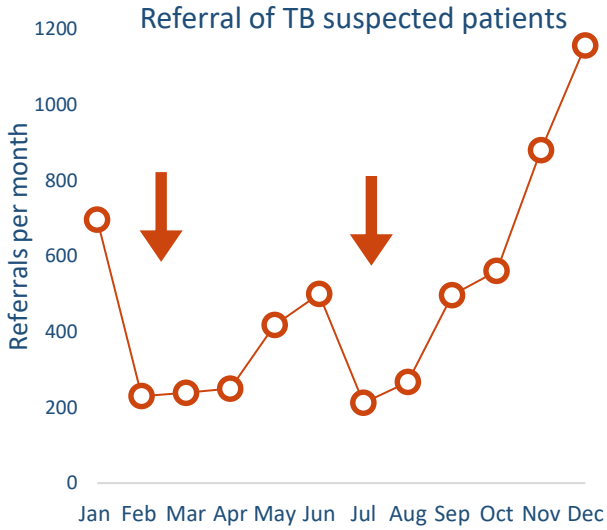


To make sure that VHWs did not run out of supplies, as a result of ‘COVID lock-downs’ or travel restrictions due to armed conflict, we provided them with a large stock. However, referrals of severely ill patients or suspected TB patients, to the nearest hospital, were severely affected. For fear of COVID or violence, patients did not dare to leave their village, therefore risking that their condition

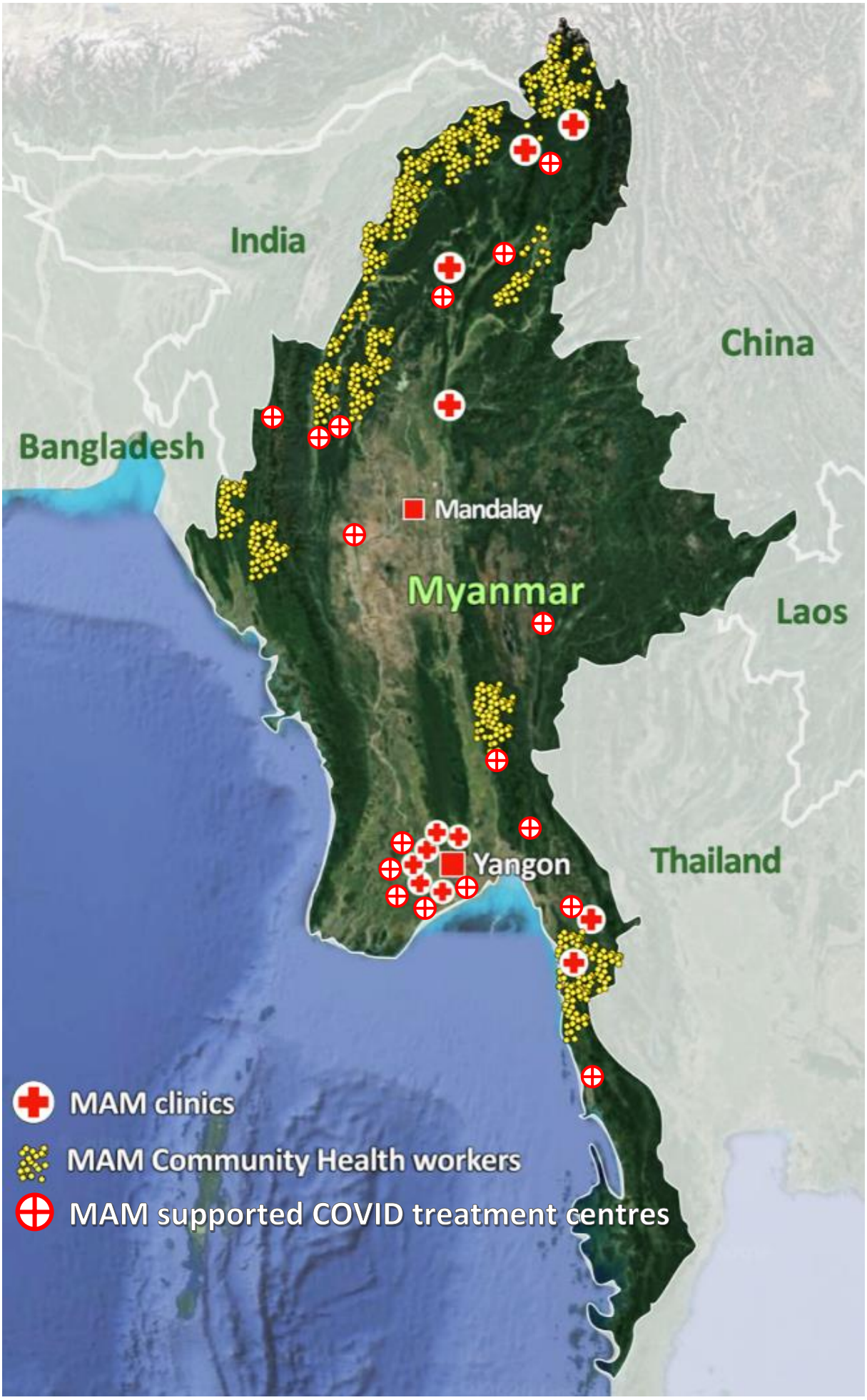
worsened. An unknown number of people have died as a result.

People who had fever and cough were particularly reluctant, out of fear that they would be put in COVID quarantine. This is most harmful for people with TB. If untreated, their disease will get worse and more difficult to treat. And it is more likely to spread TB to their family.





After the military take-over (February) and during the COVID epidemic (July-August) the uptake of referrals for TB dropped, while in November-December the referrals rapidly increased, most likely to deal with the backlog of suspected cases.


India
China
Bangladesh
Mandalay
Myanmar
Laos
Yangon
Thailand
MAM clinics
MAM Community Health workers
MAM supported COVID treatment centres

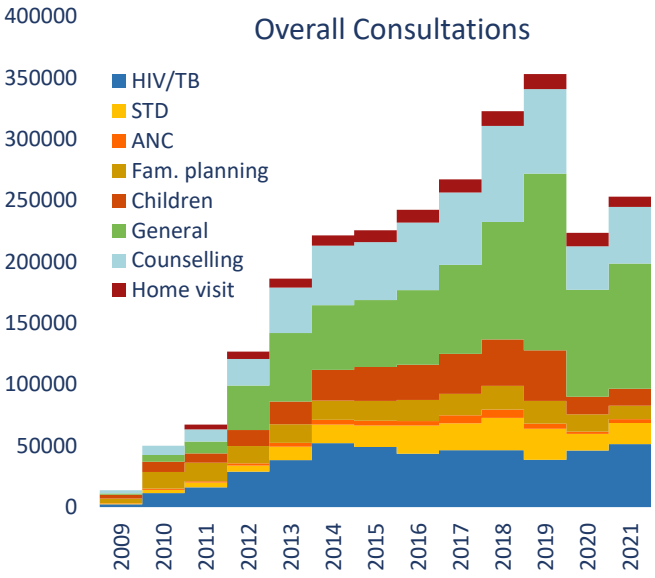
DETAILED REPORT 2021

1. Introduction

In 2021 MAM operated 12 clinics, supported 2000 village health workers in remote areas and opened 17 treatment centres with 805 “oxygen beds” for severely ill COVID patients. We employed 1069 routine staff and hired 304 staff in addition during the COVID outbreak. In total we provided 1,314,405 consultations in 2021.

2. MAM medical clinics

In 2021, MAM conducted 244,698 clinic consultations and 8,482 home visits for patients with chronic diseases. After the sharp decline of 2020, due to COVID, the number slightly recovered.



Pediatrics and malnutrition

4,747 new children were brought to the clinics by their parents/caretakers and 13,763 consultations were conducted. All children are screened for acute malnutrion.

Mid-arm circumference screening for malnutrition

Taking care of children at Mother House

- *Child Protection*: Some children seen during consultations are abused. MAM’s child protection team supported 273 children, trying to prevent further abuse or, in very violent cases, support legal aid. MAM built a house for HIV orphans and abused children who are taken care of by 2 ‘mothers’ who care for them and make sure they get their medicines and education.
- *Child Support*: MAM provides support for food, clothes, hygiene and education (+/- $330 per person per year) to 390 children living in extreme poverty.

Family planning and Reproductive health

Many women have more children than they can care for. This leads to poverty and poor health of mothers and children. Some women seek illegal abortions, which can result in infection and death. 11,193 family planning consultations were conducted. Contraceptive implant is increasingly popular and 1,603 women received an implant.

Women with sexually transmitted infections (STI) have often no symptoms, and screening is essential to detect syphilis, chlamydia, gonorrhoea. STI facilitate HIV transmission and female sex workers are most at risk. Many of them work in brothels and have limited opportunities to visit a clinic. MAM’s mobile teams visit brothels to test and treat women for STI & HIV and offer contraception. 17,021 consultations were made.

Antenatal care

Treatment of HIV+ pregnant women saves their lives and prevents HIV transmission to their babies. Alongside 3,104 antenatal care consultations, 77 HIV+ mothers were treated. In 2021, 28 children from HIV+ mothers were tested and all were HIV (-)

HIV prevention and treatment

HIV transmission is concentrated among people with high risk behavior; female sex workers, men who have sex with men and people who inject drugs. We are

providing a broad package of HIV prevention and treatment activities including health education, condom distribution, prophylactic HIV treatment (PrEP), and methadone and needle exchange for heroin users. This benefits the people with high risk behavior, their partners, their children and the general population.

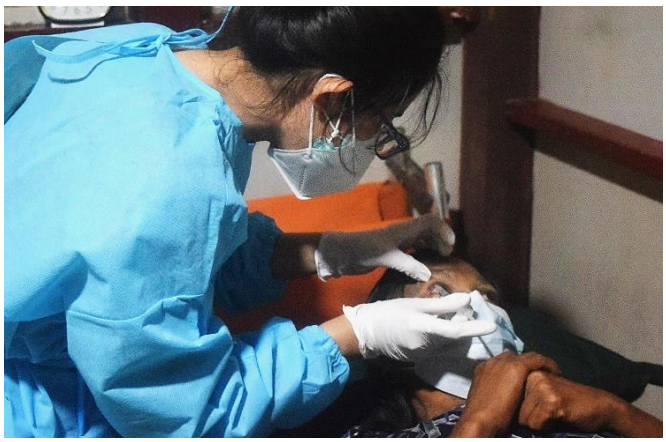
In 2021 we tested 17,671 people of whom 1,361 were HIV+ and received treatment. We have 4,856 HIV patients on treatment, plus the additional 2,000 patients we took over temporarily from government clinics. Over 85% of them survive >10 years on treatment. Patients on treatment generally do not transmit HIV. Treatment is the best prevention!

– *Injecting drug users (IDU) in Putao (Kachin)*

IDUs are at high risk of HIV infection. They are often a major burden to the community. To reduce the harm for them and others we provide methadone to reduce, or stop, their dependence on heroin. In 2021 we provided methadone to 434 persons.

– *Eye screening*

People with severe HIV can get blind due to infections with cytomegalovirus or TB. We screened 261 patient's eyes; 60 had TB or other pathologies, and 3 had CMV retinitis. For CMV, we inject ganciclovir directly into the eyeball to prevent blindness. We also provide eye surgery free of charge for those who have complications.



Injecting ganciclovir for a late stage HIV patient with CMV

– *PrEP (new activity)*

PrEP (pre-exposure prophylaxis) is medicine people at high risk for HIV take to prevent getting HIV. MAM started to provide these medicines in Yangon to Men who have Sex with Men (MSM). This preventive treatment has been provided to 544 persons so far. This is in addition to condom distribution.

Tuberculosis

We tested 2,574 patients for TB, and 656 needed treatment. The treatment success rate was 91%.

Hepatitis C

MAM treats patients for Hepatitis C to prevent progression to terminal cirrhosis. So far 665 patients were enrolled in Yangon and Kachin. 307 patients were treated and cured while 358 are still on treatment.

Counselling and outreach service

Counselling is done to support compliance with long-term treatment. Poor compliance leads to resistance, which is a threat for all. In 2021, 46,065 counselling sessions were conducted, and 8,482 home visits were done for socially or physically weak patients.

Performing laboratory diagnostic procedure in clinic lab

Laboratory services

104,037 tests were conducted in the clinics in 2021.

Food and travel support

Patients who are ill from serious chronic diseases like TB and HIV are often unemployed and poor. Some sell their medicines to buy food, leading to treatment failure. We provided cash for food and transport to 1,558 patients until they recovered and could return to work.

Referral for surgery or medical emergencies

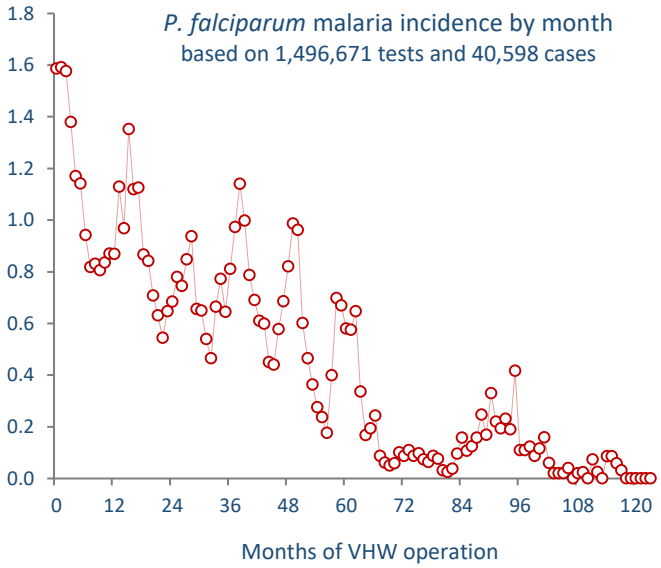
The clinics referred 782 patients to hospitals for further management. Including the boy below.

3. Village Health Workers

In the most remote communities, there is no proper health care and sick people go to a "q*uack*". MAM trained 2000 villagers as *Village Health Workers* (VHW) to manage malaria, TB, diarrhoea and other diseases. In 2021, they did 1,069,707 consultations. They also refer severely ill patients to hospitals, paid by MAM.

a. Malaria

After MAM introduced VHW, people with fever had access to early diagnosis and treatment *in* their community. This rapidly reduced malaria transmission.



Most malaria patients came from a very remote area in South Chin state, on the border with India and Bangladesh, where malaria is highly endemic. Malaria control activities there are hampered by limited access due to armed conflict in this area.

b. Tuberculosis

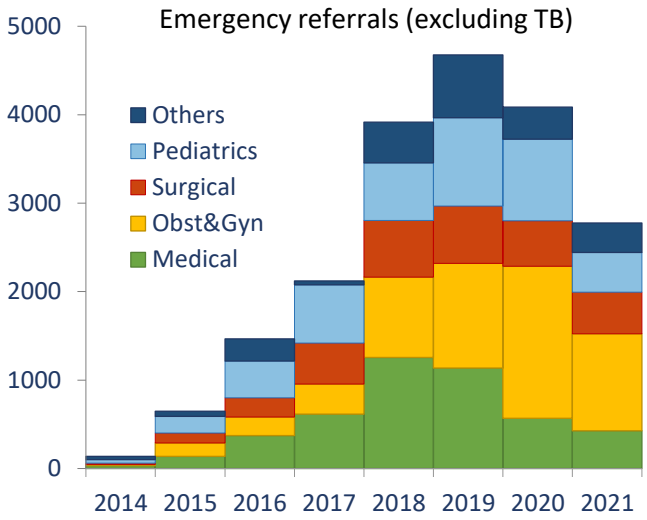
VHWs referred 3,229 TB suspected patients to get an X-ray and a lab test. Of them 790 patients started treatment in the community supervised by the VHW.

c. Basic Health Care

713,195 consultations were conducted for basic health care, including respiratory infections, gastrointestinal infections, malnutrition and skin infections. Most (93%) were conducted by VHWs and the remaining consultations were done by MAM mobile teams. This includes 31,043 women who received family planning.

d. Referrals of severely ill patients

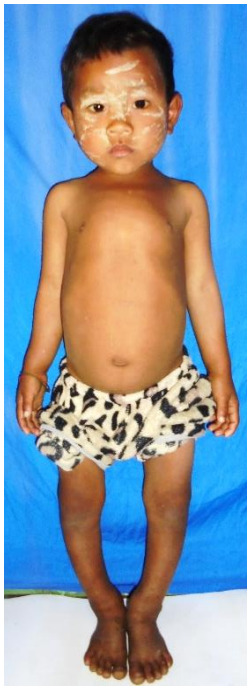
Referral of severely ill patients to a hospital is very expensive because of the remoteness and patients cannot afford this. MAM paid cost for transportation, treatment and food of 2,776 patients. The number of referrals decreased substantially as patients were afraid to travel because of COVID and armed fighting.



e. Malnutrition screening and treatment

Mobile teams screen children and pregnant women for malnutrition. 796 children and 252 women were treated with special therapeutic food.

f. Rickets



In the far North of Myanmar, MAM is treating 439 children with *rickets*. They have severe deformities on their legs and arms, bone pain and difficulties to walk. Some can't walk at all. Left untreated, this disease can be devastating for the rest of their life. Treatment with vit D and calcium reduces pain, improves mobility and reverses bone deformities. Physiotherapists help the children to improve the use of their legs and arms, which helps to straighten their bones. After treatment, the children's mobility X-rays and lab results improved substantially.

This 41 year old man was never treated for rickets. He can barely walk and uses an animal bone (!) to prevent his tibia bone from breaking.

– *Aetiology of rickets*

Rickets is often caused by a lack of vitamin D, due to a lack of sun. But that is not likely in Myanmar. We hope that an analysis of the patients histories, with information about their diet, sun exposure and behaviours, can provide us with information how to prevent it.

Disabled persons (New activity!)

MAM has always tried to help individuals with disabilities, but it was on a case by case basis. In 2021 we made care for disabled people an integral part of our routine activities. We provided patients with crutches (15), a prosthetic leg, wheel chairs (13) and hearing aids (40). We also supported surgery for 16 children with a cleft lip/palate. We expect this activity to grow substantially.

VHW medical training & monitoring

All VHWs are regularly visited (bi-) monthly for *on-the-job-training* by one of the 60 MAM medical mobile teams. In 2021, MAM mobile teams conducted 8,168 supervision visits. We believe that on-the-job-training with a doctor and the VHWs, seeing patients together is essential to improve the skills of the VHW.

Visiting VHWs is labour intensive and became more dangerous because of the unstable security situation.

Training of VHWs by a MAM mobile team .

Health education and active case finding of children with rickets In Nagaland, in the far North-West of Myanmar, where rickets is common.

4. COVID-19 response

Treatment and care support for Covid cases

As many hospitals were not functioning because of the country's crisis situation, MAM decided to support Community Based Organisations for the treatment of patients with severe COVID (patients with a low oxygen saturation <90%). The first oxygen centre was established in Kalay (on the Indian border, where the

Patient at a Catholic compound in Insein Oxygen Centre

epidemic started) at the Traditional Medicine Hospital in collaboration with a local organisation on the 3rd of July. After that we rapidly expanded to 18 treatment centres (with 805 beds) all over the country.

– ***Logistics.***

Providing oxygen through oxygen concentrators proved to be a massive logistical undertaking. Everything had to be organized from scratch. Buildings, beds, electricity, oxygen, medicines, everything.

a. Buildings. MAM needed to identify locations where hospital beds could be set up and where oxygen concentrators - which need a lot of electricity - could be connected to a good electricity supply. Several organisations offered buildings to set up treatment centres, while in other locations we had to rapidly construct buildings to host beds with oxygen.

2 rapidly constructed new buildings for COVID treatment

b. Electricity. Oxygen had to be supplied through oxygen concentrators. Every patient needed one or two concentrators. But as these machines need a lot of electricity, all buildings needed complete rewiring of the electrical system. In addition, we needed to set up backup electricity systems with large generators to guarantee electricity during power cuts, which are common in Myanmar. A continuous electricity supply was essential for the survival of the patients (during a power cut life-saving oxygen supply stops immediately). To manage the power supply, we had to hire 32 electricians (!) who were working 24/7 to deal with electricity disruptions.

A 2,558 kilo generator put in place 'by hand' (!)

c. Supplies. Due to the COVID outbreak and the political situation which resulted in a nationwide strike, ports, airports, border crossings and all shops were closed, which made it extremely difficult to get supplies (medical materials, construction materials and so on). We had a shortage of oxygen concentrators, oxygen cylinders, medicines, medical supplies, generators, construction materials, beds and everything else.

MAM logisticians worked around the clock to visit local shops, which were closed (!) – we just kept knocking on their doors - and buy supplies. Construction of buildings were delayed as entire building crews got sick with COVID. Transport was hindered by the strike and obstructed by security personnel.

– ***Staff recruitment and training***

To provide intensive care 24/7 for severely ill patients in 18 centres, we recruited 302 additional staff. deal with the patients 24/7

– ***Treatment protocol.***

We developed a practical treatment protocol in collaboration with 2 intensive care specialists (prof Dondorp and Dr Inglis), that focussed on the most important interventions (oxygen with a non-rebreather mask, intensive nursing care with 2-hourly monitoring of oxygen saturation and vital signs, monitoring of blood sugar, provision of essential medicines and prevention of thrombo-embolism).

COVID treatment centre in Kale, where the epidemic started

– ***Treatment outcome.***

Until the end of December, 2,647 severely ill COVID patients (with an oxygen saturation <90%) received treatment supported by the project. Overall 80% recovered, 19% died and 20 patients were transferred out. The patients who died generally had a very low oxygen saturation on admission (on average 60% SpO_2). Patients who survived had an average oxygen saturation of 80% on admission.

Fever & Cough clinics

MAM started to introduce special Fever and Cough Clinics for the diagnosis and treatment of patients with fever and/or cough, with a special focus on COVID and tuberculosis. In these clinics, patients will be screened with a physical exam, an X-ray and laboratory tests for COVID and Tuberculosis.

Nine clinics are operational in Yangon, Kachin and Kayin while another 6 will start in 2022.

5. Emergency response

Households already living in poverty faced unemployment and more hardship due to COVID, political instability and restricted movement. People living off their daily incomes, with no savings, could no longer afford rent, food and other necessities.

Woman and child after receiving food support during COVID

To support them, MAM select 4,423 families most in need and provided financial and nutritional support.

In some areas fighting was intense and people had to leave their towns or villages for safety. MAM provided support for 17,875 displaced people.

Temporary shelter for people who fled the fighting..

Distribution of food, blankets and other essential items

Our mobile medical team "off the road", while travelling from one remote community to another.
Besides one or two staff, they transport all medical supplies on their bikes on very difficult and slippery paths.

6. Donations

Our activities are only possible thanks to the donations we get. Small or large, they all make a big difference for the patients we treat! Treatment of some diseases, like malaria or rickets, cost only a few dollars. It can save a life or prevent unnecessary suffering.

For people who live in Australia, Canada, Germany, Switzerland, The Netherlands, UK and USA, donations can be tax deductible. For information please contact Mr Sieb, our financial person: sieb@mam.org.mm

Bank details Medical Action: USD		**Bank details Medical Action: EURO**	
Bank name	ABN AMRO Bank	Bank name	ABN AMRO Bank
Bank address	Apollolaan 171, 1077 AS Amsterdam, The Netherlands	Bank address	Apollolaan 171, 1077 AS Amsterdam, The Netherlands
Account name	Medical Action	Account name	Medical Action
Account number (USD)	43.84.12.974	Account number (EURO)	54.12.25.693
IBAN number	NL56ABNA0438412974	IBAN number	NL24ABNA0541225693
BIC:	ABNANL2A	BIC:	ABNANL2A

If you want to have a look at our new website, designed by Robin Smithuis (brother of Frank); **https://mam.org.mm/**

Non-profit Organization

Medical Action Myanmar

The main goal of Medical Action Myanmar (MAM) is to improve access to quality health care in Myanmar targeting poor, marginalized and vulnerable people.

The initiative is from Dr Frank Smithuis and Dr Ni Ni Tun, who previously worked for Médécins sans Frontières Myanmar from 1994 to 2009. They are working with a team of very committed and experienced health professionals. In 2009 medical services were started in 1 clinic in Hlaingthayar, a peri-urban slum area of Yangon. Since then we expanded to 12 clinics across Myanmar providing a range of medical services for patients with HIV, TB, Hepatitis, Reproductive Tract Infections and Malnutrition, integrated in Basic Health Care services.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