



# Activity Report

January – December 2016



## Table of Contents

1.	Introduction.....	1
2.	Clinic activity 2016.....	1
2.1.	Introduction.....	1
2.2.	Paediatric services.....	1
2.3.	Reproductive tract infections.....	2
2.4.	Family planning.....	2
2.5.	Antenatal care and HIV.....	2
2.6.	HIV prevention and treatment.....	2
2.7.	Tuberculosis.....	3
2.8.	Eye screening and blindness prevention.....	3
2.9.	Day-care unit.....	3
2.10.	Laboratory testing.....	4
2.11.	Counselling and outreach service.....	4
2.12.	Food supply and travel support.....	4
3.	Village Health Volunteers.....	5
3.1.	Rationale.....	5
3.2.	Malaria.....	5
3.3.	Tuberculosis.....	6
3.4.	Malnutrition.....	6
3.5.	Basic Health Care.....	6
3.6.	Referrals of severely sick.....	6
3.7.	VHV training & monitoring.....	7
3.8.	Health education and bednet distribution.....	7
4.	Fund raising and Donations.....	10
4.1.	Taste the World.....	10
4.2.	Medical Action Myanmar UK.....	10
4.3.	Unorthodox donations 'in kind'.....	10
4.4.	The Radiology Assistant.....	10
4.5.	Volunteer Health Staff.....	10
4.6.	Many other donations.....	10



## 1. Introduction

Myanmar has a population of 52 million with 25% of the people who live below the poverty line and 5% live in extreme poverty.

*Medical Action Myanmar* (MAM) started working in Myanmar in June 2009, with the opening of a health clinic, in Hlaingthayar Township, one of the biggest and poorest slum communities in Yangon. Since then, MAM activities have expanded and the organization is currently supporting 8 clinics in Yangon (5), Kachin state (2) and Mon state (1). In addition, MAM has set up a network of 1,282 Village Health Volunteers (VHV), targeting malaria, TB, malnutrition and basic health care in remote, hard-to-reach villages across the country in Mon, Kayin, Thanintharyi, Kayah, Sagaing, Chin and Kachin states.

Overall more than half a million patient consultations were performed by MAM supported clinics (242,000) and VHV (275,000).

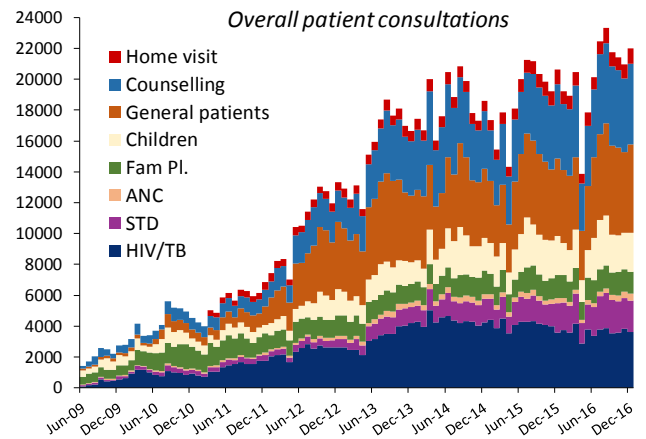


## 2. Clinic activity 2016

### 2.1. Introduction

MAM clinics provide a wide range of health services, free of charge, from acute medical consultations to more complex TB and HIV-related care and nutritional

support to some of the poorest populations who cannot afford to pay for their basic health needs. Most clinics are opened 7 days a week. The 120 clinic staff are sometimes joined by volunteer specialist from foreign countries. In addition to 232,000 consultations in the clinics, 10,252 home visits were done for patients with chronic diseases like malnutrition, TB and HIV.



### 2.2. Paediatric services

**Children treated:** 28,674 consultations

Main diseases; respiratory (44%); gastro-intestinal (15%); skin (10%); malnutrition (5%), dengue (1%)



*Registration of children for a consultation*

Most children could be taken care of in the clinic but some children, with acute complicated conditions, were referred to hospital and all treatment-related expenses and transportation costs were paid by MAM.

### Malnutrition

MAM started systematic screening of children and pregnant women to detect malnutrition early. Malnourished infants, young children and pregnant women receive therapeutic feeding and medical treatment. Of 31,418 children screened 824 were moderate and 37 severely malnourished. Early diagnosis and treatment can dramatically decrease mortality.





*This father attended the clinic every day to feed his severely malnourished daughter with a special formula*

### 2.3. Reproductive tract infections

**Patients treated:** 23,018 consultations; syphilis (6%)! Screening and treatment of reproductive tract Infections (RTI) and sexually transmitted infections (STI) includes a physical examination and laboratory screening for diseases such as syphilis and gonorrhoea. Female Sex Workers are an important target group for STI management due the high risk. STI are also a risk for unborn babies and management for pregnant women is therefore crucial. When a patient is treated for STI, the partner is also invited for treatment. Treatment of RTI & STI reduces the risk to get HIV.



*Partner counselling for STI and HIV*

### 2.4. Family planning

**Patients treated:** 17,211 consultations Many women have more children than they can care for. In poor areas this frequently leads to poverty of the family (more children to take care for and mother less likely to have an income). It can cause poor health of both mothers and children and – if women are desperate – they seek illegal non-sterile abortions, which can result in infection and death of the mother. Family planning can give a family the choice when to take children (when they are ready to take care of the next child). Most women opted for a depo injection but the insertion of a contraceptive implant, available in

MAM clinics for the past 2 years is becoming increasingly popular.

### 2.5. Antenatal care and HIV

**Patients treated:** 3,696 consultations



Treatment of HIV+ pregnant women not only saves their lives, but also prevents transmission to their unborn or breast-feeding baby. The mothers are enrolled into the program up to 1½ year after birth. 57 new HIV+ pregnant women started ART for treatment & prevention. 122 mothers have been under care over the past year including 51 women who delivered at their local hospital in 2016. So far 55 children had an HIV test at 18 months and only one child became infected with HIV.



### 2.6. HIV prevention and treatment

**Patients tested:** 17,382 consultations

**Patients on treatment:** 3,478 patients

MAM clinics provide HIV care, including testing, counselling and treatment. Our aim is to offer a one-stop service to improve attendance, ease patients' experience and enable them to retain employment. In addition, 3,435 patients stable on treatment could return to work in 2016 and 3,324 patients reported no symptoms 6 months after starting AIDS treatment. Dr Ni Ni Tun (right) and her clinical team have become a referral centre that supports

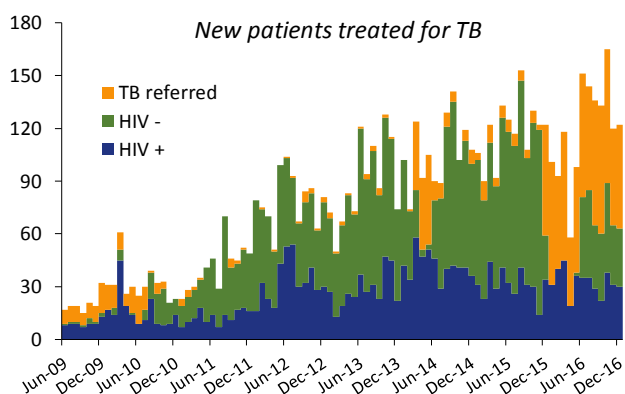




other organisations with regards to treatment and management of HIV-related infections. Several NGOs and hospitals referred patients to the Thazin clinic.

## 2.7. Tuberculosis

**TB patients treated:** 1,439 patients



1,439 patients were diagnosed with TB. 681, mostly HIV+ patients with TB were treated in MAM clinics, while most HIV (-) TB patients (758) must be referred for TB treatment in government clinics. All 1,439 TB patients received food support (including rice, beans, oil, salt and blended food) to improve their nutritional status.

Outreach support workers regularly visited the patients' houses for treatment management support, discuss the drugs side effects, and offer social counselling.

## 2.8. Eye screening and blindness prevention

**Eye screening tests:** 1,446 patients

**Patients treated:** 36 CMV+ cases; 448 TB cases and other eye conditions

People with severe HIV infection have a high risk of becoming blind due to cytomegalovirus (CMV) infection that affects the retina. Early CMV treatment using ganciclovir injection directly to the eye ball can prevent disease progression and blindness. Dr Ni Ni Tun is specialized in this procedure.

Over the years, MAM has created a strong relationship with an organization called "Myanmar Eye Services" that provides eye surgery to MAM patients, free of charge. Hospital charges (e.g. operation theatre) and laser treatment cost approximately 1,500 USD and 120 USD respectively and are covered by MAM. These operations can have a huge impact on patients' daily lives and are only needed for individuals who present with late stage CMV retinitis, which cannot solely be treated by ganciclovir injection.

Other NGOs and hospitals are also referring patients to MAM for diagnosis and treatment.



*Thura makes pictures of the retina for the diagnosis of CMV retinitis, tuberculosis and other pathology*

## 2.9. Day-care unit

**Patients treated:** 2,031 consultations

**Day-care admissions:** 904 patients

Severely ill patients are admitted to the day-care ward, where most patients can be managed, including patients with severe opportunistic infections. Patients who need specialist care like surgery or obstetrics, are referred to the local hospital. Costs for referral and treatment are paid by MAM.



*A lumbar puncture to identify infections of the brain*



*Dr Pyae performing an abdominal ultrasound*



## 2.10. Laboratory testing

**Laboratory tests:** > 90,000 tests

Each clinic has a laboratory team to perform routine tests. Advanced tests (e.g. CD4 test, kidney and liver function test) are done at the main laboratory. MAM recently purchased an HIV viral load machine that will much improve treatment decisions.



## 2.11. Counselling and outreach service

**Patients:** 55,197 counselling and 10,252 home visits

Counselling is important for patients with long-term treatment and when treatment adherence is vital. Home visits can also support patients. The staff can assess the patients home environment and look for ways to improve treatment support.

MAM staff also visit communities to educate the community about infectious diseases and malnutrition.



*A 10-month-old baby attended the Lotus clinic with his 17-year-old mother for severe malnutrition and tuberculosis. His mother was diagnosed with HIV at delivery and the baby was given post exposure prophylaxis treatment by the local hospital.*

*Due to financial difficulties, the family was not able to attend their regular follow up appointments until the baby became seriously ill in August 2016, with acute diarrhea and weight loss. The baby was then diagnosed with TB and started on anti-TB drugs at the local hospital. At the same time, an HIV test was done to the baby but the mother did not return to get the result and*

*came to the Lotus clinic instead. Our clinical team decided to continue the anti-TB treatment as well as enrolling the baby into the therapeutic feeding center program.*

*The mother received dry food rations and all travel cost to attend clinical appointments were covered by MAM. In the meantime, the baby tested positive for HIV and antiretroviral therapy was commenced.*

*After 5 months on treatment, the baby is now thriving and has gained considerable weight. He is also improving developmentally, able to grab objects, smile when stimulated and getting stronger with his limbs. His mother is much happier, taking care of herself and enjoying life again with her husband and their new baby.*



## 2.12. Food supply and travel support

Many patients with serious chronic diseases, like TB and HIV are too sick to work and face unemployment and poverty. Some may sell part of their medicines to support their family, which can lead to drug resistance and treatment failure. MAM supplies food and travel expenses for a few months until patients improved and can return to their job. 3,658 patients with TB, HIV, orphans and single-women households received food support.





### 3. Village Health Volunteers

#### 3.1. Rationale

Most remote communities do not have trained health professionals in their area. These communities are small and far apart and the infrastructure in these areas is very poor. This makes it very difficult for health staff to visit these villages and, vice versa, for villagers to reach health staff. People are poor and transport costs from remote villages to hospitals is prohibitively expensive. When people get sick they usually visit a “Quack”, a person who bought medicines at a regional market and treats patients, without training to provide a reliable diagnosis or treatment.

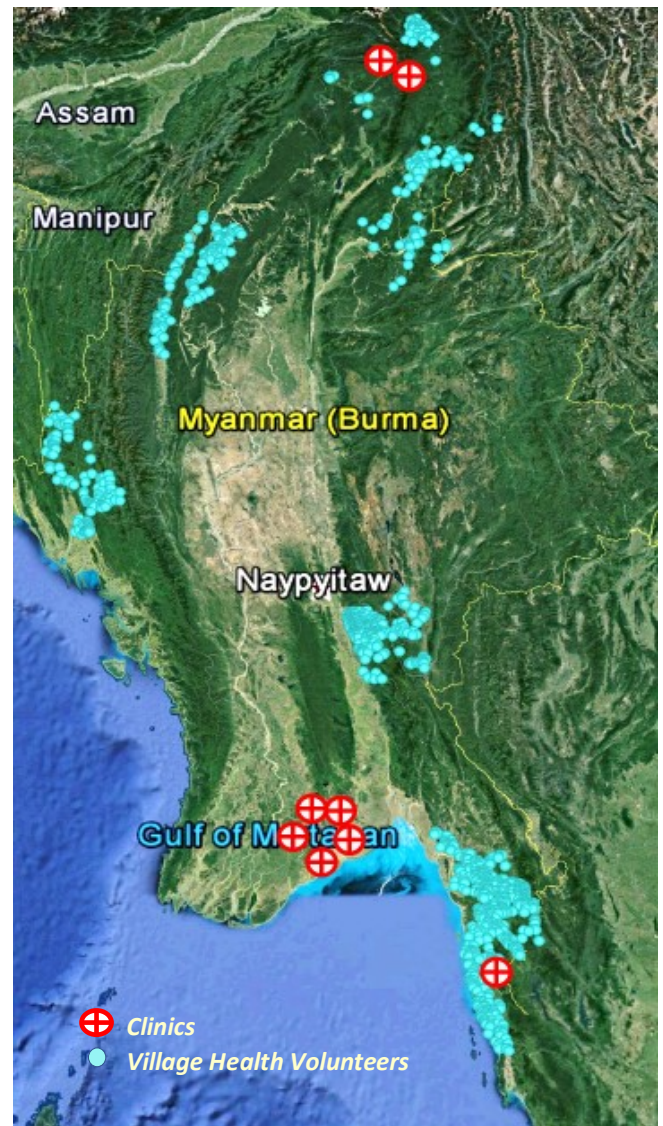
In 2011 MAM started a health care project for these very remote communities. Villagers were selected and trained to become Village Health Volunteers (VHV) and run one-person clinics. The network of VHV gradually increased to 1,313 VHV.

Initially VHV were trained to manage malaria only, which was arguably the most important disease. Later they were trained to provide a broader health package, covering some of the most common pathology including pneumonia (TB), diarrhoea, malnutrition and family planning. Severe and complicated patients are referred to hospitals, paid by MAM.

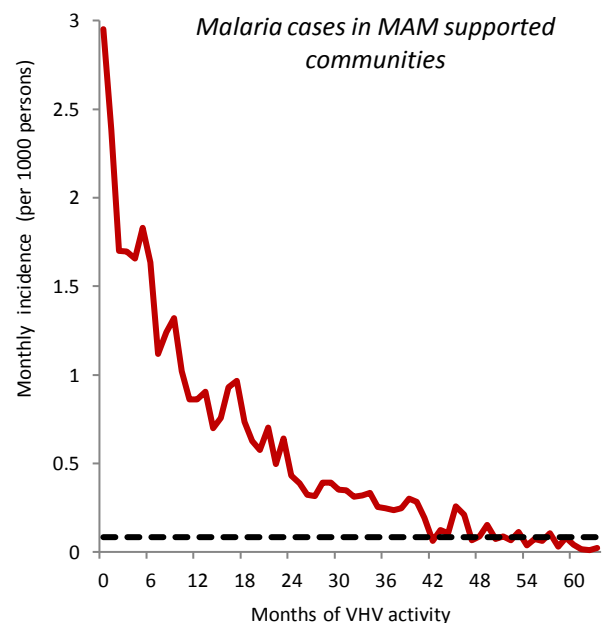
The VHV services are very popular and effective. From January to December 2016, approximately 275,000 patients consulted our VHVs and 1,469 patients presenting with life-threatening diseases were referred to hospitals.

#### 3.2. Malaria

The VHV malaria activities have proven to be extremely effective. With the provision of a simple rapid diagnostic tests (RDT) and effective treatment in these

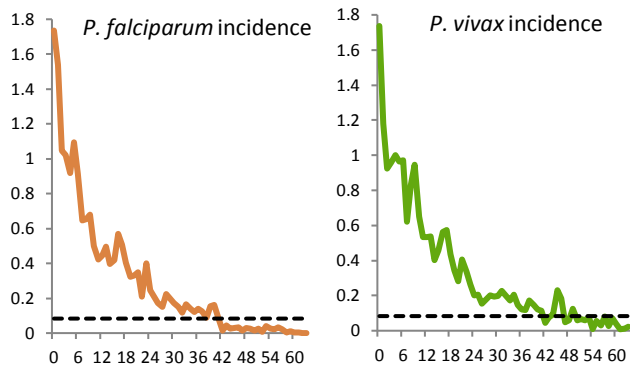


remote communities to the MAM trained VHVs, malaria has decreased dramatically (graphs). 228,031 patients received an RDT and 4,047 patients (2%) tested positive for malaria; 1% for falciparum malaria and 1% for vivax malaria. When the project started the positivity rate was approximately 30%.



A VHV taking blood for a rapid test for malaria

The decrease was equally impressive for falciparum malaria and the more difficult to treat vivax malaria.

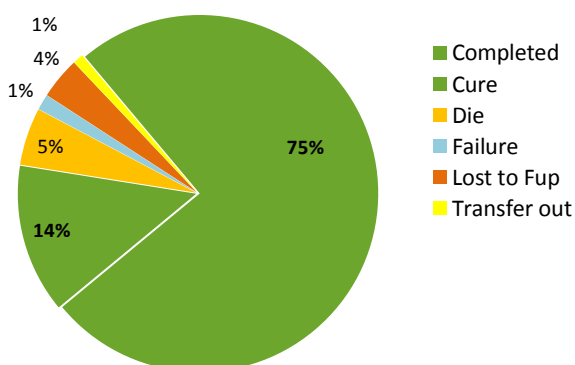


We have seen this rapidly declining trend in all areas where we started malaria activities through the VHV network.

### 3.3. Tuberculosis

The VHVs are also trained to identify patients in their village with signs and symptoms suggestive of tuberculosis. Early diagnosis is essential to prevent transmission. These patients are referred to our medical referral team for clinical assessment, sputum collection and chest X-ray prior to being transferred to the government hospital where they will initiate anti-TB treatment when necessary. In 2016, 1153 patients were diagnosed with TB. For the latest cohort treatment outcome analysis, 89% of those started on treatment were cured or completed their course (graph). 4 patients were transferred to specialised services with suspected multidrug resistant TB.

TB Treatment Outcome



Note; Completed + Cured = treatment success

### 3.4. Malnutrition

Screening of children under 5 years of age for malnutrition, based on the Middle Upper-Arm Circumference (MUAC), was introduced to the project at the end of 2012, and subsequently extended to include pregnant women. When malnutrition is confirmed, therapeutic feeding is provided for both

moderate and severe malnutrition. Early diagnosis and treatment can dramatically decrease mortality.

In 2016, 3,990 children were screened for malnutrition and 669 (17%) children received plumpy-nut, a high-energy peanut-based paste. Care-givers also received advice on the best way to care for their malnourished children and the physical and behavioural signs that can raise concern.



After being treated for malnutrition with plumpy-nut and regular follow-up by the VHV, this young girl recovered and was discharged. Follow up in 3 months!

### 3.5. Basic Health Care

During this reporting period, a total 274,243 consultations were conducted by MAM VHVs. Most patients presented with gastrointestinal infection, respiratory infection, and skin infection. 24,620 women received family planning sessions supervised by a medical doctor.

MAM mobile medical teams were also deployed to support and promote the VHVs activities. 21,659 patients were treated by the MAM medical doctors together with the VHVs. This is a good opportunity for the doctors to conduct on-the-job training and monitor VHVs activities and performance.

### 3.6. Referrals of severely sick

Some severely sick patients need hospital treatment. But public transport is not available and for many communities a hospital can only be reached after many hours or day travel by motorbike over muddy paths, by boat or by foot. This makes difficult and prohibitively expensive for most. Patients attending MAM VHV services with severe disease are considered for referral to the nearest hospital. All VHVs received training on guidelines based on the type of medical conditions (i.e. life-threatening diseases or prevention of disabilities).





*MAM doctor and VHV discuss the patient's condition during a home visit and the considerations of referral to a hospital*

1,469 patients were referred in 2016. All costs for treatment, food and transport were paid for by MAM. The average cost of 1 patient is 82 USD. The possibility of referral in case of severe disease has made the project very popular among local villagers. MAM staff will also follow up patients in the hospitals.



*Dr Ko Kyaw Wai visits a patient he referred to the hospital*

### 3.7. VHV training & monitoring

All MAM VHVs received an initial 3-day training course on malaria diagnosis and treatment. Theoretical training is followed by monthly *on-the-job-training*. 50 medical teams travel each month to every remote village to train the VHV. This is extremely labour intensive (pictures next page) but we are convinced that *on-the-job-training, in the community, with a doctor and the patients* is essential to improve the skills of a Village Health Volunteer (VHV). The VHV and the doctor see patients together and the VHV can learn from the clinician how to examine the patient, what questions to ask, how to respond to the questions of the patients, when to refer and so on. The VHV can ask questions to the clinician on-the-spot and the clinician can ask questions to examine the skills of the VHV. And the patients can ask questions to both the VHV and the doctor. This method is even more essential with the expansion of activities of the VHV from malaria-alone to an integrated package of malaria together with

other basic health care activities and referral of complicated patients to hospitals (clinically not easy!). In addition to on-the-job-training the quality of the VHV activities of the past month are monitored. In 2016 8,645 monitoring visits took place in all villages where an MAM VHV is present.

Patient home visits are also conducted to verify the quality and perception of MAM service provision. Monitoring reports and data analysis direct teams' plan of action to enhance support and output at the VHV sites. Meetings are arranged every 6 months for VHVs to get additional theoretical training, share their experiences and learn from others.

### 3.8. Health education and bednet distribution



Health education promotes disease prevention, but also diagnosis and treatment services by the VHV. Health education is given in 7 different local languages!

Approximately 151,000 people attended health education sessions delivered by MAM.

40,105 bed-nets were distributed. The logistics of moving over 40,000 bednets is hampered by the poor infrastructure.







*TRAINING AND MONITORING; In south Chin state MAM staff have to travel 6 hours by boat and walk for 14 days carrying all supplies ! to visit 16 villages. After that they reach another river where they get a boat to bring them back to the field office. There is no form of communication available in this area; internet, telephone, telex, pigeon. It is a very tough job and we have a lot of respect for them.*



*In central Sagaing the paths are so narrow and covered with deep mud that the team can reach the villages only on the back of an elephant.*

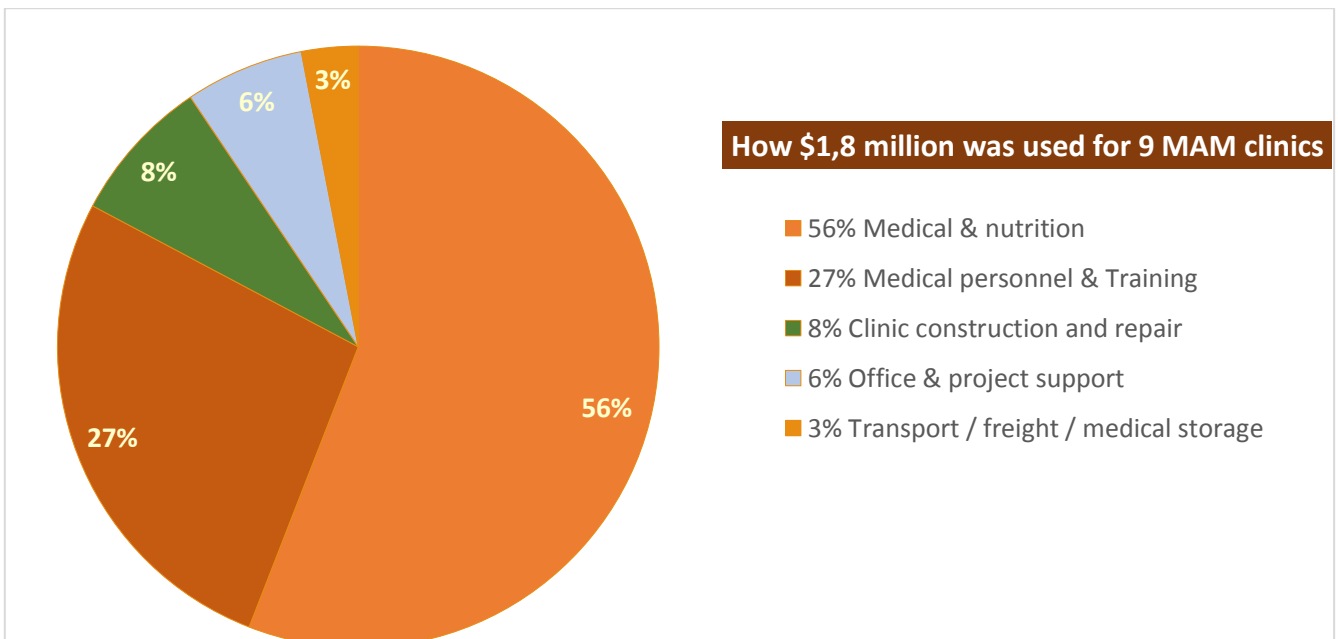




*Crossing a river with medical supplies. Not exactly what you had in mind when you started your medical training....!*



*The new MAM hospital under construction in Karen (Kayin) state. Opening in 2017 !*



## 4. Fund raising and Donations

### 4.1. Taste the World

In January, Canadian Friends of Medical Action Myanmar organized their yearly special fundraising evening chaired by Brenda McAllister and Cinnamon Russell. Nina and John Cassils, the initiators, have been hugely successful in fundraising through these events. This year the following persons and foundations have contributed to the CW Asia Fund Charitable Foundation; Jim and Lynne Walker, Wieland and Susan Wettstein, John and Rebecca Mackay, John and Nina Cassils, Marily Mearns, Tim Gamble, Shannon Belkin, Paul & Cynthia Balfour, David Alexander, Michael Wood, Chris Forman, James Brown, Mark Neale, Frances J. Will, David Cynamon, Kerry Dyer, Gillian Elmitt, Patsy Thorpe, Bryce Rositch, Stewart Hayashi, Maria Siy, Pinsky Personal Law Corp, Leigh Sauder, Jamie Sikorski, Merilea Creighton, Tina Hulbert, Ann Hendrie, CW Asia Fund Foundation, Wettstein Family Trust, Blue Shore Financial, Natures Path, The Joseph Segal Foundation, Langlois Brown Wealth Management, Hollis Wealth, Scotia Capital Inc. Many thanks to all of you!

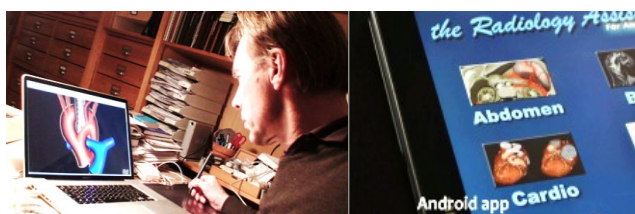
### 4.2. Medical Action Myanmar UK

Medical Action Myanmar UK donated £8,640 during 2016 through continued support from their network of people who are giving monthly donations, and a fundraising lecture given by Barnaby Phillips who spoke about his book "Another Man's War", the story of a Burma boy in Britain's Forgotten African Army"

### 4.3. Unorthodox donations 'in kind'.

Daniel Waldvogel provided us with large numbers of various items, varying from family planning implants to thousands of bars of Swiss chocolate (which we distribute to the 1,450 Village Health Volunteers). Many thanks!

### 4.4. The Radiology Assistant



Robin, making drawings for his website

Robin Smithuis, a Dutch radiologist (and brother of Frank), has spent 15 years of his free time to make a beautiful website, *the Radiology Assistant*, which provides up-to-date and free-of-charge radiological education for radiologists. The web-site gets 1.5 million hits world-wide per ... day! Access to the web-site is for free, but income from the iPhone- and iPad-version of the web-site is donated each year to Medical Action Myanmar.



### 4.5. Volunteer Health Staff

A number of doctors, nurses and some non-medical people offered to work for MAM free of charge. They are mostly involved in training. Special thanks to *Green Shoots* for sending international medical and logistical experts.

### 4.6. Many other donations

Many other donations, small and large, have been provided by private people and foundations and we sincerely thank them for that.

**DONATIONS;** Our medical activities are only possible thanks to the donations we get. Small or large, they all make a difference! 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; 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
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