



Mae Tao Clinic Annual Report 1998

Dr. Cynthia Maung
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Introduction

The Mae Tao Clinic has been providing health care since 1989 for an ever-increasing number of Burmese refugees, migrant workers, and people crossing the border from Burma. The Clinic is located in Thailand 4 km east of the Moei River, between the Burmese border town of Mya Wa Di and Mae Sot. It has grown from a small building serving Burmese students fleeing the 1988 crackdown to a center with inpatient services, outpatient services, maternal child health programs, eye care clinics, infant nutrition and immunization programs, and family planning counseling. The Clinic also trains medics, midwives, and laboratory technicians to provide health care on the Thai-Burma border. Mobile medical teams and backpack medics from the Clinic journey across the border to provide basic medical care and health education to areas too unstable to support permanent clinics. The Clinic also trains traditional birth attendants (TBA's) on the Thai-Burma border in modern delivery practices. Over the years the Clinic has strengthened cooperation with Mae Sot Hospital, which supplies vaccines and prenatal HIV testing and accepts referrals for complex and critically ill patients.

The Mae Tao Clinic supports social programs as well. A primary school and a boarding school serving 36 students at the Clinic provide education and care for orphaned and abandoned children. The Clinic also provides support for women's organizations in the refugee camps, and sponsors special events inside the camps including some with public health awareness themes.

Military activity within Burma and deteriorating health conditions along the Thai-Burma border put increasing demands on Clinic operations this year. Forced displacement of civilians within Burma and ongoing human rights violations by SPDC and its aligned forces stimulated continued migration towards the border. The resulting increased population density has raised the prevalence of malnutrition, anemia, and malaria. The Clinic has also had to deal with the health consequences of increased drug trafficking across the Thai-Burma border. To keep up with the increasing patient load, construction was begun this year on a new inpatient facility that will open in 1999.

This report summarizes Mae Tao Clinic activities and programs for the year 1998.

Medical Staff

Dr. Cynthia's medical staff consists of three doctors and sixty health care workers. All of the workers are volunteers who receive only basic necessities such as food and shelter for their services. The names and current assignments of the senior staff are listed in the appendix.

Medical and Surgical Acute Care Services

The Inpatient Department and Outpatient Department saw 19,471 visits, an increase of 27% compared to 1997 (see Figures 1 and 2). The caseload may be greater than the actual number of patients seen, as some patients may have had more than one diagnosis or been seen more than once. Caseloads are influenced by patient access to the Clinic as well as seasonal variations in disease patterns.

Figure 3 shows the monthly caseloads of three major diseases we track by month: acute diarrhoeal disease (ADD), acute respiratory infection (ARI) and malaria. True incidence rates for these diseases are impractical to calculate because of the mobility and open nature of the population served.

Almost three thousand cases of malaria were treated at the Clinic during 1998. Figure 4 shows the monthly case totals, and a pie chart of the different subspecies of malaria diagnosed. As in previous years, the peak of malaria cases occurred during the rainy season months of June and July. The number of cases seen at the Clinic had a second smaller peak during the month of November. The majority of malaria cases (72%) were *P. falciparum*, with *P. vivax* accounting for 23%. Three percent of cases had mixed subspecies, and two percent were diagnosed presumptively.

The table below shows the annual total and the average number of cases per month of the different disease groups.

DISEASE GROUP	MONTHLY AVERAGE	ANNUAL TOTAL
Acute Respiratory Infection	451	4729
Malaria	243	2917
Anaemia	167	1999
Surgical Problems	80	965
Acute Diarrhoeal Disease	74	888
Peptic Ulcer	72	867
Urinary Tract Infection	64	762
Eye Care	53	637
Skin Diseases	45	541
Malnutrition	22	268
Complications of Abortion	18	219
Intestinal Parasites	17	206
Beri Beri	11	130
STDs	10	125
Tuberculosis (Suspect Cases)	10	120
PID	5	56
Measles	1	16
Other diagnoses	278	3334
Total	1622	19471

In the above table, the category "Complications of Abortion" denotes treatment of complications (such as hemorrhage and infection) of abortions done elsewhere, as the Clinic itself does not perform abortions.

The Mae Tao Clinic cooperates with local hospitals in the diagnosis and treatment of tuberculosis. Mae Sot Hospital processes sputum samples for AFB stain and culture and performs chest X-rays on patients referred by the Clinic. Patients who have a confirmed diagnosis are then referred to MSF (Medicine sans Frontieres), Mae Sot Hospital, or Myawaddy Hospital, where treatment is started. However, many patients seen at Mae Sot or Myawaddy cannot afford the antibiotics prescribed. In such cases they can fill their prescriptions without charge at the Mae Tao Clinic pharmacy. In 1998, 24 Patients were diagnosed AFB positive and 23 patients were diagnosed by chest x- ray. Mae Tao Clinic provided medicine for 21 patients 4 have completed their course of medications through the Clinic pharmacy.

The number of blood transfusions given at the Clinic increased nearly threefold compared to 1997. During 1998 the Clinic saw more anaemia secondary to malnutrition and malaria. Landmines in rice fields and jungle paths caused many civilian casualties that added to the demand for blood. Of the 323 transfusions done in 1998, eleven percent was for surgical indications, another eleven percent for obstetric indications, and the remainder for medical indications. The Clinic staff donates most of the blood given, and all blood donations are screened for HIV and Hepatitis B infection before administration. Mae Sot Hospital provides blood when no donors are available at the Clinic.

Eye Care Program

Eye care is available weekly at the Mae Tao Clinic. The eye care program treats trachoma, Vitamin A deficiency, and some other infections and minor injuries of the eye. Patients are screened for glaucoma and cataracts and referrals made to eye surgeons who volunteer their services. The eye care team also fits glasses using donated eye glasses when the correction is the same for both eyes. Lenses must be ground for patients with astigmatism or unequal correction.

(Eye care program description and statistics here.)

Diseases groups	Cases
Eye glass	624
Trochoma	45
Cataract	105
Pterygiun	40
Xerophthalmia / Preventive doses of Vitamin A	87
Minor Eye Injury	11
Other	17
Surgery	11 - glaucoma - 1 - Cataract - 10

Laboratory Services

The Clinic laboratory routinely performs hemoglobin tests, malaria slides, urine pregnancy tests, routine urinalysis, and blood glucose. Blood typing, HIV, hepatitis B surface antigen, and VDRL screening are done when needed for emergency surgical and obstetric procedures. For other purposes such as prenatal screening, these tests are done at Mae Sot Hospital. Mae Sot Hospital also performs other tests not available at the Clinic such as complete blood counts, metabolic tests, and renal function tests.

Malaria slides constituted the bulk of laboratory services. During 1998, the Clinic's laboratory processed 12,121 slides. The table below summarizes malaria slides tested in 1998 compared to previous years. Because many patients were tested more than once, the proportions are not necessarily representative of the prevalence of different subspecies of malaria seen at the Clinic.

Year	Positive	<i>P. falciparum</i> (% of positives)	<i>P. falciparum</i> gametocytes (% of positives)	<i>P. vivax</i> (% of positives)	Mixed (% of positives)	Total Slides
1996	2768 (40%)	72	4	17	5	6758
1997	3198 (40%)	69	5	20	6	7907
1998	4753 (41%)	72	8	15	6	12121

Statistics for HIV, Hepatitis B surface antigen, and VDRL tests performed at the Clinic are summarized in the table below.

Test	% positive	% negative	# of tests done
HIV	1.9%	98.1%	206
Hepatitis B Surf. Antigen	16.3%	83.7%	239
VDRL	1.4%	98.6%	70

Reproductive Health Services

The clinic continued its strong programs in prenatal care, deliveries, and family planning.

In the prenatal program, women are screened for anaemia, HIV, hepatitis B, and syphilis. Those with high-risk pregnancies (e.g. complicated by severe malaria or HIV infection) are referred to the Mae Sot Hospital for management. In 1998, the Clinic made 83 such referrals. Women with uncomplicated pregnancies are monitored and delivered at the clinic. Prenatal screening statistics are shown below. Because of the possibility that patient demographics have shifted over time, the changes in prevalence seen at the Clinic are not necessarily representative of changes in the Thai-Burma border population.

Year	Hgb < 11 mg/dl	HBsAg	HIV	VDRL	Total Patients
1996	267 (63%)* *pts with Hgb<10 mg/dl	19 (4.4%)	4 (0.9%)	4 (0.9%)	424
1997	437 (90.3%)	29 (6.0%)	8 (1.7%)	10 (2.1%)	484
1998	588 (86.9%)	68 (10.0%)	7 (1.0%)	12 (1.8%)	677

In 1998 Mae Tao Clinic delivered 269 babies. The table below gives the numbers and percentages of low birthweight, stillbirths, and complicated deliveries. Some mothers seek care for the first time at the point of delivery and do not receive prenatal care, causing a higher than desired number of complicated deliveries at the Clinic.

Year	Birth weight < 2.5 Kg.	Breech	Twins	Forceps Delivery	Still Births	Total Deliveries
1997	19 (10.6%)	1 (0.6%)	3 (1.7%)	6 (3.35%)	3 (1.7%)	179
1998	17 (6.3 %)	3 (1.0%)	2 (0.7%)	5 (1.9%)	4 (1.5%)	269

The family planning program provides counseling and contraceptives (oral contraceptive pills, condoms, depo-provera, and IUDs) donated by the Mae Sot Hospital. Insertion of IUDs is done at the Clinic. When appropriate, patients are referred to Mae Sot Hospital for free vasectomies or tubal ligations. Mothers bringing children to the nutrition, immunization, or outpatient clinic are offered referral to the family planning program. Patients choose their own contraceptive method after discussion with their spouses. Couples counseling is provided if desired or appropriate. A summary of contraceptive services provided in 1998 is given in the following table.

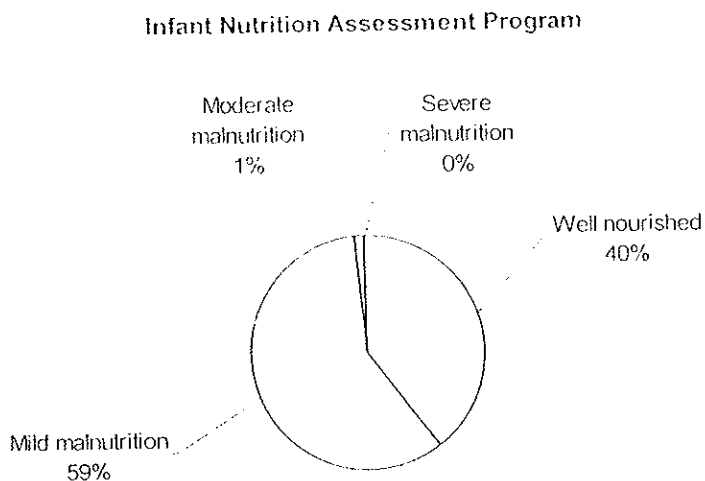
	Number of Users	Number of dispensed
Counseling only	8	
Natural method	1	
Depo provera (new acceptors)	184	320
(old acceptors)	136	
Condoms (new acceptors)	100	2000
(old acceptors)	0	
Oral contraceptive pills (new acceptors)	142	456
(old acceptors)	10	
Intra uterine device - insertion	5	
- check up	1	5
- removal	1	
Sterilization - referral for tubal ligation	44	
- referral for vasectomy	0	

Drug trafficking, economic crisis and lack of information on reproductive health create teen age pregnancies, unwanted pregnancies and abortion among the girls. Almost all induced abortions were done by untrained traditional birth attendants, always complicated with sepsis. Sexually transmitted diseases and abortion cause infertility and pelvic inflammatory diseases.

Infant Nutrition Program

This year the Clinic expanded its infant nutrition program to include weight-for-height nutritional assessment. Once a week, infants and toddlers are weighed and fed a well-balanced meal at the Clinic. When necessary, malnourished children are treated at the Clinic's IPD Special Feeding Center. Severely malnourished children are fed six meals a day in the inpatient special feeding center. The Clinic staff teaches mothers and children basic nutrition, and refers patients with acute health problems to the OPD children's clinic. The nutrition program is synchronized with the immunization program to make it more convenient for parents to participate.

Since the weight-for-height nutritional assessment was started in July of 1998, 3,129 visits were made by 2,228 patients. Of these, only 881 children were found to be well-nourished. The remainder had varying degrees of malnutrition, as shown in the pie chart below. Only three patients were found to have severe malnutrition.



Immunization Program

Child immunization services continued during 1998. The Mae Sot Hospital donates DPT, OPV, measles and BCG vaccine to the Clinic for this program. The transient and mobile nature of the clinic population continues to be a barrier to immunization. Many mothers are illegal immigrants fearing deportation, and are often reluctant to risk arrest to bring their children to clinic. Some of the infants immunized at the Clinic were delivered at the Clinic, while others are new arrivals who were delivered elsewhere. Of the newly arriving older infants, some are only partially immunized while others have never been immunized. The number of different immunizations given is summarized in the table below.

Age	BCG	OPV			DPT			DPT Booster	Measles
		1	2	3	1	2	3		
< 1 year	387	292	183	128	292	183	128	32	97
> 1 year	80	132	53	47	133	53	47	35	64
Total	467	424	236	175	425	236	175	67	161

Training and Exchange Programs

The Mae Tao Clinic supports three training programs: primary health care, eye care, and laboratory technology. Primary health care training, supported by WEAVE, consists of ten months of classroom and clinical training followed by a two year internship in Dr. Cynthia's medical network. This program has experienced a two-thirds retention rate over the years. Fourteen-six students graduated from the ten month training program in 1998.

Eye care training was conducted by the International Rescue Committee. The two primary eye care courses were conducted and seventeen four health workers completed this course. Karen, Burmese and Kareni medics have been trained as trainer of primary eye care eleven medics completed this course. The eye glass course was given to the medics from nearby refugee camps and Mae Tao Clinic eight medics completed this course.

The Mae Tao Clinic also conducted laboratory training. Eight trainees completed this course in 1998.

Each year the Mae Tao Clinic hosts health workers and students from abroad who are interested in the situation on the Thai-Burma border. Drs. Ben Brown from California and Myron Semkuley from Calgary, Alberta visit us each year, as does Inge Sterk, a midwife from Villingen, Germany who assists with midwife and family planning training. During 1998 medical students interested in health care in developing countries came from Australia, Slovenia, United Kingdom, and United States for clinical rotations.

Clinic Funding

The Mae Tao Clinic is supported by the following organizations with specified grants.

Organization	Form of support
Burma Border Consortium (BBC)	rent, utilities, and basic food supplies for staff, patients, and others
Medicin sans Frontieres (MSF)	medicine and medical supplies
Burmese Relief Center (BRC), Chiang Mai	medicine, office supplies, kitchen supplies, monetary support Mobile medical team projects.
BRC and International Rescue Committee (IRC)	monetary support for OPD and IPD services at Mae Sot Hospital
Mae Sot Hospital	vaccines, family planning supplies, free obstetric procedures and vasectomies
Women's Education for Advancement and Empowerment (WEAVE)	training program, including supplies, utilities, and food for staff and trainees; development of illustrated materials for maternal-child health programs and other public health education materials
Young Green Foundation	Kway Kaloke emergency relief, nutrition project, medical textbooks for medics
APHF/DA	library books, medical textbooks for medics, teaching materials for TBA training and HIV/AIDS education, library books for migrant workers and refugee camps
British Embassy	office equipment, beds, library books
New Zealand Embassy	sewing training project support
Canadian Embassy	electronic mail access, Kway Kaloke emergency relief, shoes
Women's Commission For refugee women and children	prenatal HIV and hepatitis B testing, TBA training supplies, obstetric facilities and equipment, prenatal and family planning education materials, new inpatient building.
Dan Church Aid	microscope, laboratory supplies, emergency power generator
Help aged international and UNICEF	Eye care programme
Brackett Foundation	nursery and primary school education programs
International rescue committee	} civilian clinics in Karen, Kareni and shan state.
DOEN foundation	
Terre des hommes	

In addition, the following organizations and the generosity of many individual private donors support the Clinic's myriad other projects, such as the backpack medic program, orphan care program, first aid training both in camps and cross-border, and special events and health education projects in refugee camps. Their donations also go into a general fund to support Clinic administration and rent.

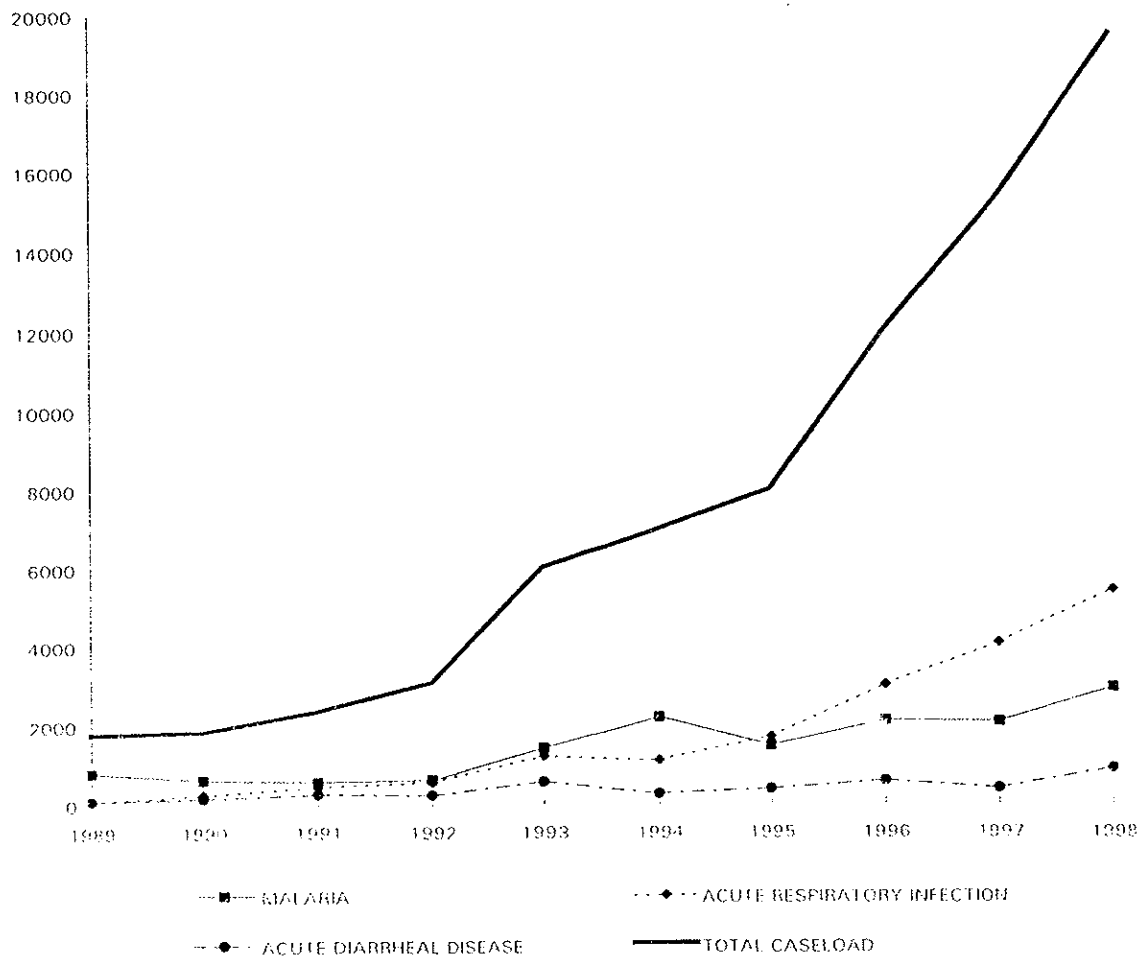
Australian Baptist World Aid	Burmese Refugee Care Project	Jubilee Action Aid
Burmese in Australia Water Festival Committee	Burma Youth Volunteer Assn. Japan.	Matriona
Burmese Relief Center, Japan	Euro Burma	KDRF (Karen development and relief foundation (UK)

Activities for 1999 and Beyond

All of the Mae Tao Clinic's current services will continue into 1999, and most will see an increasing number of people. A new IPD building will be opened this year to provide a larger, more sanitary facility for inpatient services. Cross border assistance will also be increased through the backpack medic program. There is interest in expanding into community education and training for Burmese migrant workers. The mental health needs of Burmese refugees and migrant workers is also gaining more attention. Possible projects in this area could include psychiatric training for clinic staff, and mental health awareness programs for school teachers and women's organizations. With the support of organizations and friends both locally and abroad, the Mae Tao Clinic will be working hard to meet the growing health and social needs of refugees and migrant workers on both sides of the Thai-Burma border.

Figure 1.

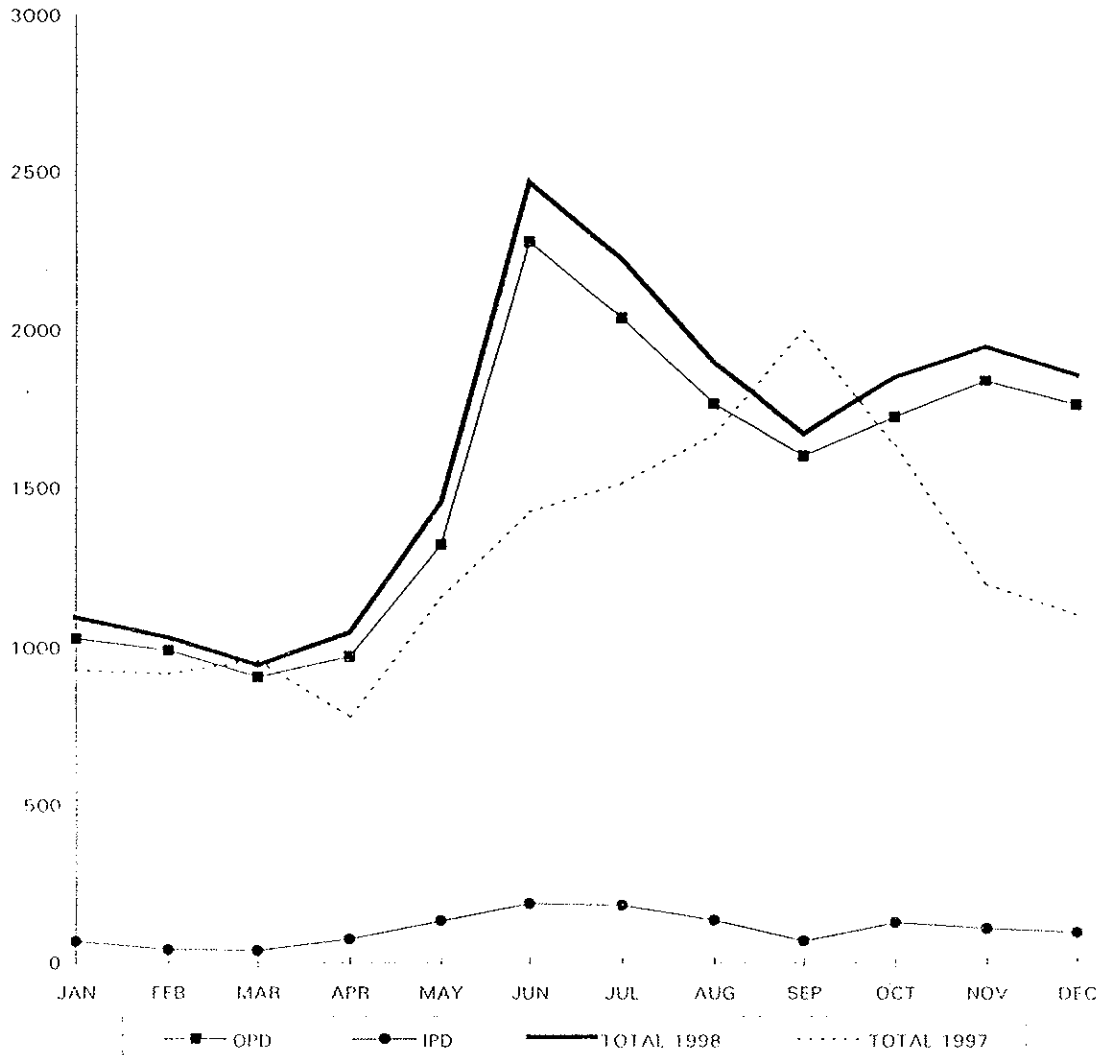
Mae Tao Clinic Yearly Caseload



	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
MALARIA	794	620	559	611	1402	2191	1461	2095	2063	2917
ACUTE RESPIRATORY INFECTION	81	241	441	552	1203	1104	1691	2985	4063	5420
ACUTE DIARRHEAL DISEASE	88	148	250	219	564	259	373	573	379	888
OTHER DIAGNOSES	797	818	1089	1677	2835	3436	4467	6338	8767	10246
TOTAL CASELOAD	1760	1827	2339	3059	6004	6990	7992	11991	15272	19471

Figure 2.

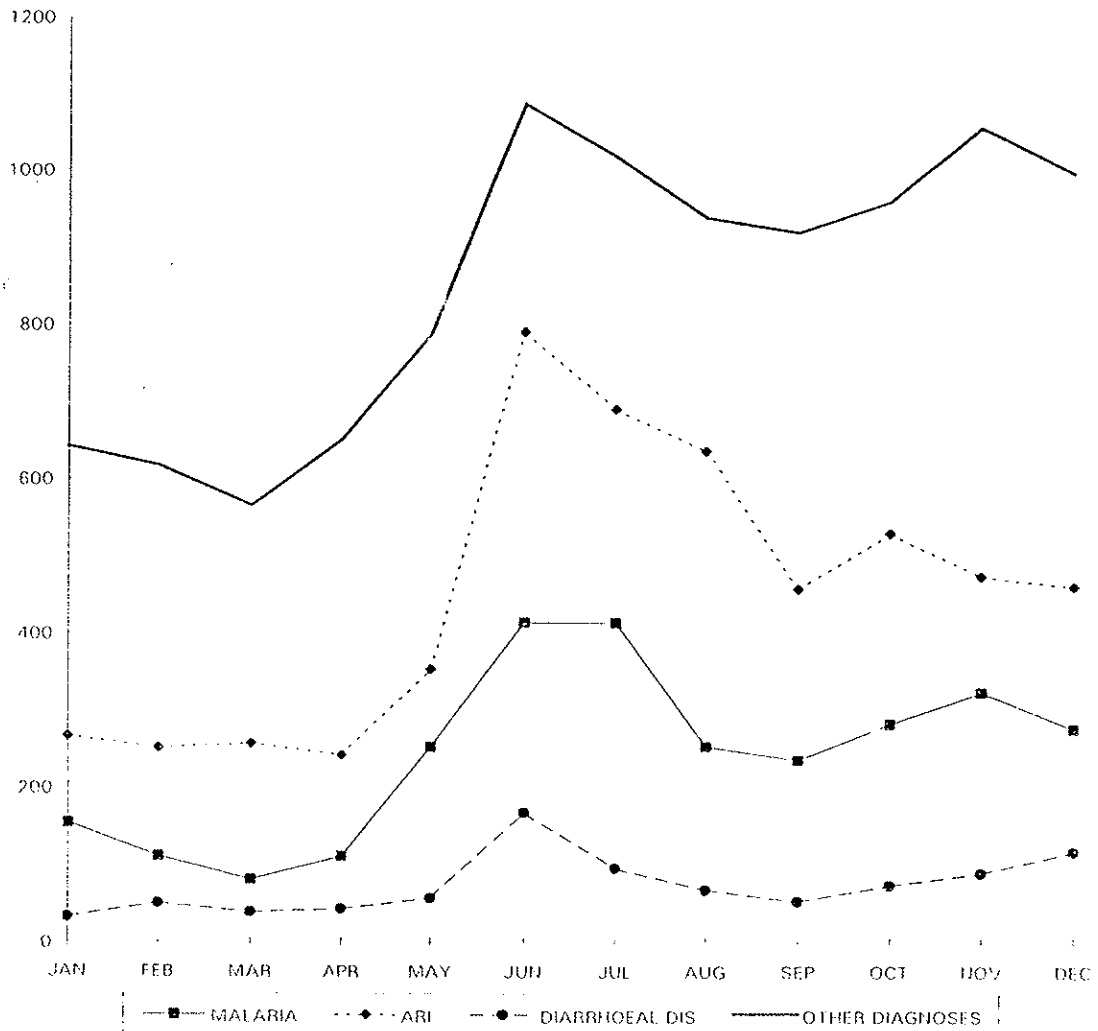
Mae Tao Clinic Case Totals 1998



	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
OPD	1027	990	906	972	1321	2275	2038	1764	1599	1723	1840	1762	18217
IPD	66	39	37	75	132	187	182	134	69	127	109	97	1254
TOTAL 1998	1093	1029	943	1047	1453	2462	2220	1898	1668	1850	1949	1859	19471
TOTAL 1997	928	916	961	782	1154	1423	1511	1667	1997	1633	1198	1102	15272

Figure 3.

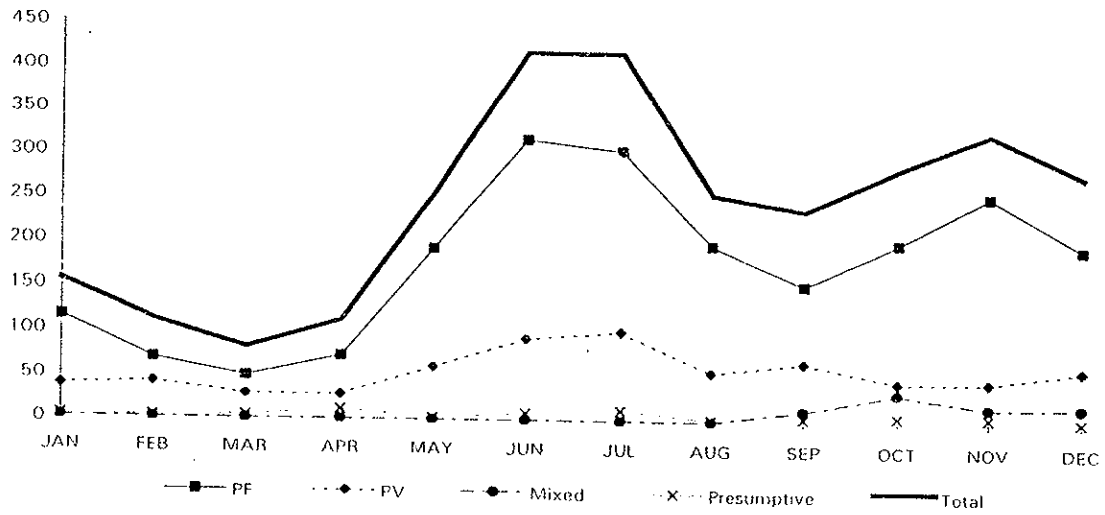
Mae Tao Clinic Monthly Case Totals 1998



	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
MALARIA	154	111	81	111	253	415	415	254	236	284	325	278	2917
ARI	266	251	257	242	354	792	691	637	459	532	476	463	5420
DIARRHOEAL DI	32	50	39	43	57	168	96	68	53	74	90	118	888
OTHER DIAGNO	641	617	566	651	789	1087	1018	939	920	960	1058	1000	10246

Figure 4.

Mae Tao Clinic Monthly Malaria Case Totals 1998



	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
PF	114	68	49	72	191	315	303	196	152	199	254	195	2108
PV	37	41	28	28	60	92	100	56	67	46	47	61	663
Mixed	0	0	0	0	0	0	0	0	13	33	18	19	83
Presumptive	3	2	4	11	2	8	12	2	4	6	6	3	63
Total	154	111	81	111	253	415	415	254	236	284	325	278	2917

Mae Tao Clinic Malaria Cases 1998 by Subspecies

