

ကျန်းမာရေး စေတနာမန်

အမှတ် ၁၅ ဖေဖော်ဝါရီ ၂၀၀၂ ခုနှစ်။



တိုက်ပျက် - ဆူရောင်းပျားရောဂါ
Typhoid Fever
ဓားရူးပြွန်ရောဂါ
Rabies
လယ်ယာစိုက်ပျိုးရေးသင်တန်း
Agriculture training



Health Messenger

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The views expressed herein, in no way reflect the official opinion of IRC/USAID.

The procedure, explanations and treatment given in this publication are based on research and consultation with medical and nursing authorities. They all reflect accepted medical practices. Nevertheless they cannot be considered absolute and universal recommendations. The authors, the editor and the publisher disclaim responsibility for any adverse effects resulting directly or indirectly from the suggested procedures, from any undetected errors, or from the reader's misunderstanding of the text.

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Editorial

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Dear Readers,

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The epidemic of typhoid in Tham Hin camp last year has inspired us to write on the disease more elaborately in this issue. We also report on Rabies- a deadly disease- which occurs from animal bites and discuss in detail the management of dog bites and preventive measures to be taken against rabies.

We have also included reports from different camps on the activities on World AIDS day on 1st December, 2001.

The articles on agriculture training in Nu Poh camp and the Karenni camps will help people to improve their nutrition status. One test is included in this issue. The questions will be made from issues # 12, 13 and 14. Please do answer the questions and return it to us on time. The best 200 will win a prize.

Best of luck to all readers. Happy reading!!

Best regards.

Dr. Seerat Nasir
Editor

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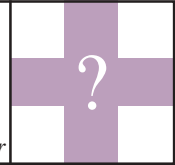
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Typhoid Fever

Health Messenger



This article will discuss in brief the cause, signs, symptoms and management of typhoid fever

What is Typhoid fever?

Typhoid fever is a life-threatening illness caused by the bacterium *Salmonella typhi*. It is also known as enteric fever. Typhoid fever is common in the developing world, where it affects about 12.5 million persons each year. An estimated 16 million cases of typhoid fever and 600,000 deaths occur worldwide. Without therapy, the illness may last for 3 to 4 weeks and death rates range between 12% and 30%. Typhoid fever can be prevented and can usually be treated with antibiotics.

How is typhoid fever spread?

Salmonella typhi lives only in humans. It is transmitted via the faeco-oral route. Persons with typhoid fever carry the bacteria in their bloodstream and intestinal tract. In addition, a small number of persons, called carriers, recover from typhoid fever

but continue to carry the bacteria. Both ill people and carriers shed *S. typhi* in their faeces (stool), for example Typhoid Mary.

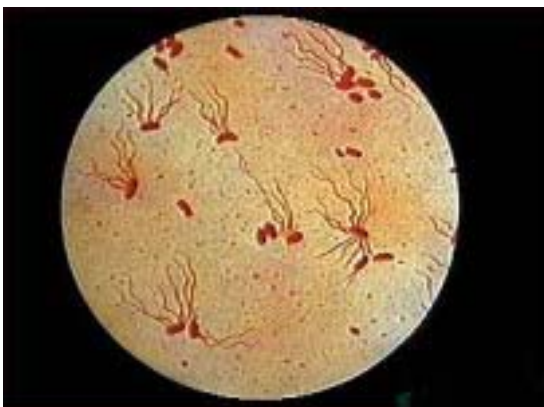
Large epidemics are most often related to faecal contamination of water supplies or street vended foods. A chronic carrier state—excretion of the organism for more than 1 year—occurs in approximately 5% of infected persons.

A person can get typhoid fever if he/she eats food or drinks beverages that have been handled by a person who is shedding *S. typhi* or if sewage contaminated with *S. typhi* bacteria gets into the water that is used for drinking or washing food. Therefore, typhoid fever is more common in areas of the world where handwashing is less frequent and water is likely to be contaminated with sewage.

Once *S. typhi* bacteria are eaten or drunk, they multiply and spread into the bloodstream. The body reacts with fever and other signs and symptoms.

What are the signs and symptoms of typhoid fever?

Early symptoms are generalized and include **fever, malaise and abdominal pain**. As the disease progresses, the fever becomes higher (greater than 103 Fahrenheit or 39 to 40 degree Celcius), and in some cases diarrhoea may become prominent. Typically, children get the disease milder and have fewer complications than adults.



Salmonella typhi under microscope.

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Other symptoms include

Severe headache	Loss of appetite
Rash (rose spots)	Constipation, then diarrhoea
Stools, bloody	Slow, sluggish, lethargic
Fatigue	Weakness
Nosebleed	Chills
Delirium	Confusion
Agitation	Fluctuating mood
Difficulty in paying attention (attention deficit)	Hallucinations

A rash, characteristic only of typhoid and called “rose spots,” appears in some cases of typhoid on the lower chest and abdomen during the second week of the fever. Rose spots are small (1/4 inch) red spots that appear most often on the abdomen and chest.

The only way to know for sure if an illness is typhoid fever is to have samples of stool or blood tested for the presence of *S. typhi*. There is an increase in white blood cell count in the blood. A blood culture during the first week of the fever can show *Salmonella typhi* bacteria.

What will a medic do if she/he suspects someone has typhoid fever?

Typhoid fever should be suspected in someone who has fever for more than seven days and no other cause for the fever can be found. If they have other symptoms suggestive of typhoid fever the medic may start antibiotics. In some camps blood cultures should be taken first before antibiotics are started. Chloramphenicol and ciprofloxacin are the commonly prescribed drugs along the border. The antibiotic given depends on the level of resistance in the area. Persons given antibiotics usually begin to feel better within 2 to 3 days but it may take longer to see an improvement, and deaths rarely occur. However, persons who do not get treatment may continue to have fever for

weeks or months, and as many as 20% may die from complications of the infection. ***Typhoid fever’s danger doesn’t end when symptoms disappear.***

Even if the symptoms seem to go away, the person may still be carrying *S. Typhi*. If so, the illness could return, or could pass the disease to other people. In fact, if one works where he/she handles food or cares for small children, it is better not go back to work until a doctor/medic has determined that he/she no longer carries any typhoid bacteria.

If a person is being treated for typhoid fever, it is important to do the following:

Keep taking the prescribed antibiotics for as long as the doctor has told you to take them.

Wash hands carefully with soap and water after using the bathroom, and not to prepare or serve food for other people until after the treatment is completed. This will lower the chance that the person will pass the infection on to someone else.

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Typhoid Mary

Mary Mallon, who died in 1938, was a New York cook responsible in the early 1900s for the last major U.S. outbreak of potentially fatal Typhoid Fever. Mallon carried the typhoid bacteria, but she herself was immune to its effects. Health authorities directly traced three deaths and 51 typhoid illnesses to Typhoid Mary, though she most likely was responsible for thousands more.

The woman just couldn't keep her hands out of the food. Her speciality was homemade ice cream.

New York health officials finally had to take Typhoid Mary into custody because she refused to stop working as a cook. She was released a few years later after promising to stop preparing other people's food forever. After two more New York outbreaks of typhoid a few years after her release, Mallon again was tracked down and found working at her old occupation. That time, authorities quarantined her at North Brother Island for the rest of her life.

How can you avoid typhoid fever?

Watch what you eat!

- Avoid risky foods and drinks. It may surprise you, but watching what you eat and drink is as important as being vaccinated. This is because the vaccines are not completely effective. Avoiding risky foods will also help protect you from other illnesses, including diarrhoea, cholera, dysentery, and hepatitis A.

“Boil it, cook it, peel it, or forget it”

- If you drink water, buy it bottled or bring it to a rolling boil for 1 minute before you drink it. Bottled carbonated water is safer than uncarbonated water. Ask for drinks without ice unless the ice is made from bottled or boiled water.
- Eat foods that have been thoroughly cooked and that are still hot and steaming.
- Avoid raw vegetables and fruits that cannot be peeled. Vegetables like lettuce are easily contaminated and are very hard to wash well.
- When you eat raw fruit or vegetables that can be peeled, peel them yourself. (Wash your hands with soap first.) Do not eat the peelings.

Typhoid epidemic in Tham Hin camp

Dr. Danielle Stewart, MSF



Multi-drug resistant (MDR) typhoid fever epidemic, Tham Hin camp, Thailand, May to November 2001.

Last year Tam Hin camp suffered two epidemics, and both at the same time. From June to September there was an outbreak of Dengue Haemorrhagic Fever, with 510 cases and 6 deaths (discussed in issue # 14), and from May to November there was an outbreak of typhoid fever. There were 587 cases of typhoid fever, no death, and 4 people referred to hospital for perforation of the gut.

The typhoid epidemic had some unusual characteristics. Firstly, a high percentage of the population was affected. By the end of the epidemic, 7% of the residents of the camp had been treated for typhoid (an attack rate of 68 per 1000 persons). This is a very high rate. Another typhoid epidemic, in Maela camp in 1999 (see issue # 8) had an attack rate of only 7.7 per 1000. It is certainly related to the very high density of people living in Tam Hin, where the houses are very close to each other making it easy for the

disease to spread quickly. The second interesting thing was that the strain of *Salmonella typhi* found to be causing the epidemic was resistant to many drugs, including chloramphenicol and co-trimoxazole. It is called multi-drug resistant (or MDR) typhoid. As with malaria, typhoid is becoming resistant to more and more drugs and at quite a fast rate. In Thailand, most typhoid is still sensitive to chloramphenicol and co-trimoxazole. However the Tham Hin MDR typhoid was only sensitive to ceftriaxone/cefotaxime or norfloxacin/ciprofloxacin, so that was what we used.

The most important things in treating typhoid is to have a good case definition, because it can be hard to diagnose. The case definition we used in the epidemic was simpler than the usual one.



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Syringes full with chlorine to add to the water.



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Case definition of Typhoid Fever

- A person with fever ($> 38.5^{\circ}\text{C}$) for more than 7 days and
- A negative malaria slide and
- At least one of the following symptoms: abdominal pain, vomiting, diarrhoea, constipation, or relative bradycardia (this means a normal or slow pulse rate when the person has fever and would be expected to have a very fast pulse rate).

The most common symptoms the patients had were the following:

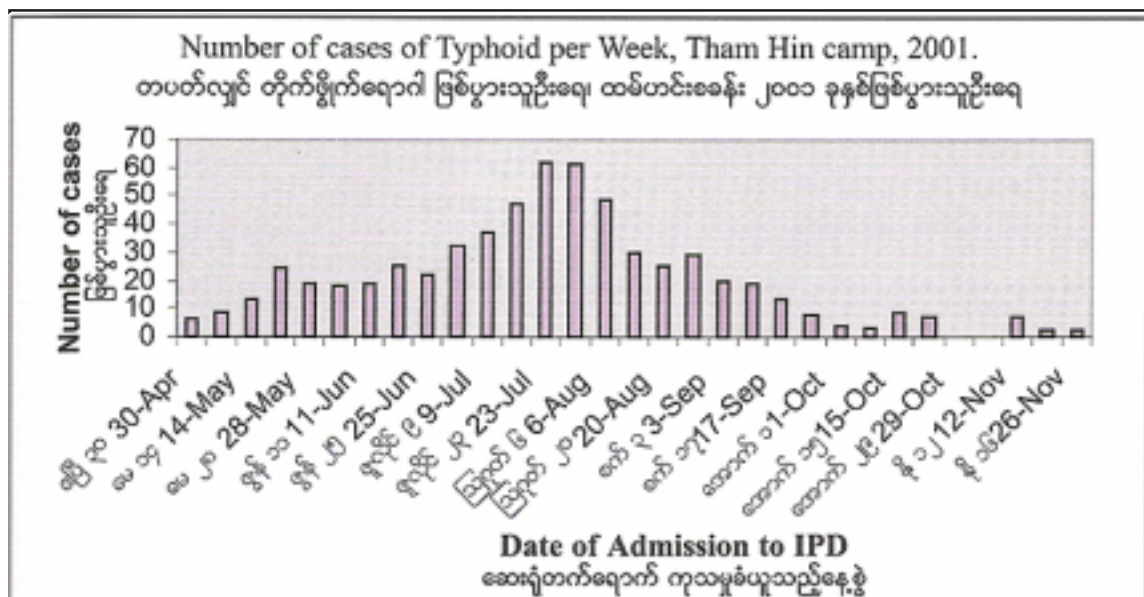
Fever	100%
Headache	92%
Abdominal pain	62%
Vomiting	52%
Constipation	24%
Diarrhoea	15%.

The epidemic was detected in early May when the clinic started to have a higher number of patients with fevers who were

difficult to treat. They had negative malaria smears, did not have a clear cause for their fever and remained febrile for more than a week. Typhoid should always be suspected in such cases and blood sent for culture. It took one week for us to receive the blood culture results and confirm typhoid. We then changed the treatment from chloramphenicol (Burmese Border Medical Guidelines) to ciprofloxacin. From the start to the end of the outbreak, 319 blood cultures were sent. 151 were positive for MDR *Salmonella typhi* and 168 were negative (47% were positive).

As soon as the disease was confirmed as typhoid, we started a control program. We made many improvements to water and sanitation in the camp. All wells were closed as they were near to some latrines and could have been sources for typhoid spread. More chlorinated water was distributed through the pipelines (more water pumped each day and new pipelines built). Extra soap and buckets were distributed. Every house with typhoid was visited by the sanitation team

Epidemic Curve





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A toile in Tham Hin camp with a message.

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and cleaned with chlorine. A large health education campaign took place, using posters, loudspeaker and Home Visitors, to tell people what typhoid was and how to prevent its spread. School-teachers were all taught about typhoid so that they could teach the children about it (50% of all typhoid cases were children aged 6 to 15 years old, and the average age of patients was 11 years). Sanitation at the school was improved and posters on health education put up there. New latrines were built and all open waste pits were closed, to prevent flies (flies can spread typhoid).

The epidemic was difficult to control however. The peak was in early August when more than 60 patients were admitted to IPD per week. The clinic became full; it was built to hold 40 patients but we had more than 100 due to typhoid and dengue attacks at the same time. The clinic latrines overflowed and we had to build more. Some staff contracted dengue, however none caught typhoid.

The typhoid patients were not too sick compared to the dengue patients but they remained in IPD for a longer time. Often they still had fever after 5 or even 7 days of treatment. This is one of the frustrating things about typhoid, it can take a long time to treat, sometimes 14 days. We saw very few complications. Four people were referred for surgery when they developed perforations (sudden peritonitis, usually in the second week of typhoid infection). A few had rectal bleeding but none severely. Typhoid can spread to anywhere in the body and cause abscesses or infection, even meningitis, but we saw very little of this, just a couple of liver and spleen abscesses.

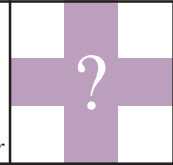
Finally, after 7 months, the epidemic is slowing and there are now just a couple of typhoid patients per week. The clinic is returning to normal and hopefully the improvements in the camp sanitation and the education campaign will prevent some other diseases too.

General Recommendations

- Send blood cultures early if you see a rise in suspicious cases (more cases than usual with prolonged fever).
- Establish a case definition early and start using it.
- Establish a register book, which should only include cases with a positive case definition or a positive blood culture.
- Identify a water source early, if possible. Do water analysis if possible (for faecal coliforms and salmonella in particular).
- Act early to fix the water supply:
 - Restrict access to the suspected water (eg- close wells)
 - Increase chlorinated water
- Waste management.
- Education campaign- what typhoid is, how it is spread and how to avoid catching it.
- Create a good liaison with the country's Public Health authority. Provide an early report and continue with weekly reports. Find a personal contact, to facilitate action and communication. They can help with water testing, blood cultures and other things if you need help.

R a b i e s

Health Messenger



This article will describe in brief the causes, signs and symptoms of Rabies.

What is Rabies?

An acute and deadly viral infection affecting the central nervous system of animals. It can be transmitted to humans by a bite or by the exposure of broken skin to an infected animal's saliva.

According to the World Health Organisation (WHO) estimation, the number of deaths caused by rabies is between 40,000 and 70,000 around the world every year. WHO also estimates that 10 million people worldwide are treated for rabies after being exposed to animals that may carry the virus.

What animals usually get infected with Rabies?

In the past, human cases usually resulted from a dog bite, but most recently cases of

human rabies have been linked to rabies virus carried by bats. Worldwide, dogs still pose a significant risk for transmitting rabies. Bats, skunks, raccoons, foxes, and other animals are other sources of the rabies virus.

How is Rabies transmitted?

Rabies is transmitted by infected saliva that enters the body by a bite or open wound. The virus travels from the wound along nerve pathways to the brain, where it causes inflammation that results in the symptoms of the disease. The incubation period ranges from 10 days to 7 years, with the average period 3 to 7 weeks. There is a direct relationship between how severe the bite is and where on the body the person has been bitten and how long it takes for the symptoms to appear. For example, if a

Brain inflammation



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Virus transmitted by infected saliva through bite or wound.

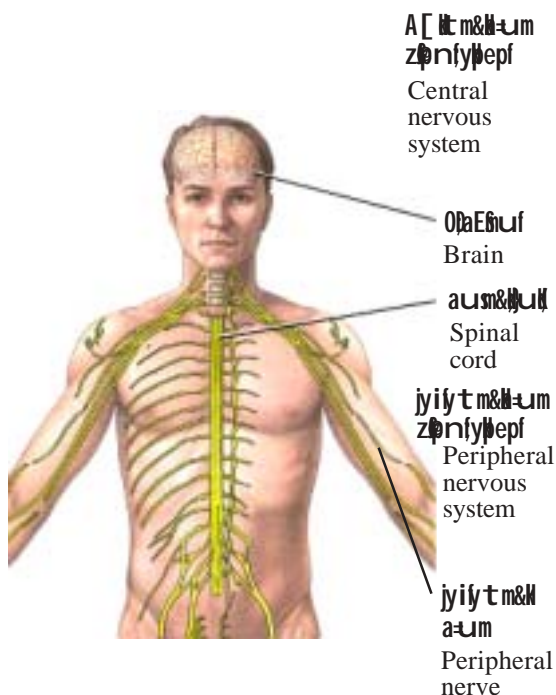
person's head is severely bitten, symptoms may show up in 14 days. Very rarely, a person may not have symptoms for a year or longer after exposure to the virus.

What are the signs and symptoms of Rabies?

- low-grade fever (38.5 C or lower)
- pain at the site of the bite
- exaggerated sensation at the bite site
- restlessness
- swallowing difficulty (drinking produces spasms of the larynx) or swallowing difficulty with liquids only
 - muscle spasms
 - excitability
 - convulsions
 - numbness and tingling



Drooling.



- positive Babinski's reflex
- drooling (the combination of excessive salivation and difficulty in swallowing produces the traditional picture of "foaming at the mouth").
- loss of muscle function/loss of feeling in an area of the body
- anxiety, stress, and tension

Most people know that rabies patients are very afraid of water. They feel very thirsty and try to drink but then they get a tight feeling in their throat, the muscles they use to breathe go into spasm and they may have

The Babinski's reflex is where the great toe flexes toward the top of the foot and the other toes fan out when the sole of the foot is firmly stroked. This is normal in younger children, but abnormal after about 2 years old. Reflexes are specific, predictable, involuntary responses to a particular type of stimulation.

In people more than 2 years old, the presence of a Babinski's reflex indicates damage to the nerve paths connecting the spinal cord and the brain. Because this tract is right-sided and left-sided, a Babinski's reflex can occur on one side or on both sides. An abnormal Babinski's reflex can be temporary or permanent.

What is rabies like in animals?

Early signs of rabies in animals include:

- change in behaviour
- fever
- loss of appetite
- change in phonation (e.g. change in tone of a dog's bark)

These signs are often slight and most of the time goes unnoticed by people. A few days after the infection, the animal may be very restless and become very agitated and tremble. An affected dog may growl and bark constantly, and will viciously attack any moving object, either a person or an animal. This stage of excitement usually lasts up to seven days, and is followed by convulsions and paralysis.

In some instances, signs of excitement and irritability are slight or absent, and paralysis develops within a few days of the disease onset. In cases like this, an early sign is often paralysis of the lower jaw, accompanied by increase drooling and foaming of saliva. The animal may appear to be choking on a foreign object. This is a dangerous trap for humans, who might get infected while trying to help the animal.

a fit. They feel terrified and some patients even have these reactions if someone talks about water in front of them. After one of these muscle spasms some patients will stop breathing or their heart stop beating and they will die.

What will a medic do if she/he suspects that a person has been bitten by a rabid animal?

Taking proper and immediate care of the wound is very important and later refer the patient to the clinic. For more details about dog bite management please read the article on Page 20.

Vaccination of cats and dogs, timely identification of rabies in humans and animals, and proper wound management can reduce deaths from the infection. Prevention of humans rabies in the camps must be a community effort involving health workers, social workers and public health officials.



Hydrophobia.

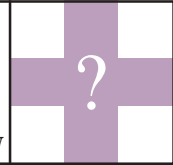


An infected dog bite.



Management of dog bites

Dr. Liz Ashley, SMRU



This article will describe in brief what to do after a dog bite.

A dog's mouth is full of bacteria; therefore, the risk of infection after a dog bite is high. Infection may just be around the wound but it can be more dangerous if it spreads to the blood, bone or brain, as in the case of Rabies.

Proper care of wound: Rapid and correct treatment of an animal bite is one of the most effective mechanisms of protection against rabies. These steps should be followed:

1. Wash and flush a wound or point of contact with soap and water, detergent or plain water. Allow the wound to bleed, to help clean the wound.
2. After thorough washing, apply ethanol, tincture or aqueous solution of iodine.
3. Evaluate the exposure and proceed with the appropriate post-exposure treatment.

*It is much better if the person cleans the bite at home before they go for medical attention - the earlier the better. It can then be cleaned and dressed again at the clinic. Wound care is **VERY IMPORTANT** and may reduce the risk of rabies by up to 90%.*

Assess the risk of Rabies

Any UNPROVOKED ATTACK by a dog (this means an attack without warning, so without the person frightening or disturbing the dog), especially from a dog behaving strangely indicates a high risk of rabies. There is more danger if the attack happens

in an area known for rabies.

Deciding whether someone needs rabies injections can be difficult. If you think that there is a risk of rabies, the patient should be referred to the hospital where rabies vaccine is available.

For those patients you DO NOT send to the hospital, it is generally safer to give them antibiotics to prevent a wound infection, even if the wound looks clean-either cotrimoxazole OR amoxycillin PLUS metronidazole for seven days unless the wound is very small or it happened a few days before and is clearly not infected.

Wounds that are most at risk of getting infected are on the face or genital area, large or deep wounds and wounds where the tissues are crushed. Patients who had a splenectomy are also at higher risk of getting a wound infection after a dog bite.

DO NOT stitch bite wounds as this may push infection deeper into the tissues EXCEPT if the wound is on the face when you may decide to close it as this kind of wound will affect the person's appearance.

If the wound already looks infected, there is a possibility that the underlying bone could also be affected. Start antibiotics and follow up these patients. Usually 10 days to 2 weeks treatment will be needed. This depends on the response of the wound. If bone is affected the treatment needs to be longer. Ideally tetanus vaccine -booster



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injection or new course- should be given if you are able to offer this.

If you send a patient to the hospital because you are concerned about rabies they should get the following treatment:

1. An injection of ready-made antibodies to rabies (rabies immune globulin). The antibody should be injected around the actual bite wound.
2. A course of rabies vaccine (there are different regimes available). These treatments are very expensive.

If the patient has previously had a full course of rabies vaccine they can be treated with a boosting course of 2 or 3 doses of vaccine and they do not need the antibody injection.

In parts of South East Asia the ready-made antibody is often not available. The standard treatment is 8 injections of rabies vaccine given at different sites.

It is thought that wound treatment, vaccine and antibody treatment given properly on the day of the bite will be almost 100% effective in preventing rabies.

After a bite it is advisable to keep the animal under watch if possible or kill it and have the brain tested for rabies. If the animal is healthy after 10 days then it is more unlikely to be carrying the rabies virus and the treatment can be stopped.

Treatment of Rabies

Patients with rabies need strong sedation, as it is a frightening and terrible disease. If not treated, the disease may damage almost

all the body systems. It may be possible to treat some of these although it is expected that all patients will die eventually.

Although it is unlikely the infection will spread, the nurses and medics should protect themselves from contact with the patient's body fluids.

Eating rabid dogs

Rabies virus can stay alive for days in a dead animal. Saliva and brain or nervous tissue in particular might be infectious if it gets through human skin. Butchering a rabid dog risks accidental hand injury from a knife or bone fragment. Thoroughly cooking the meat will kill the virus.

The butcher and perhaps the cook handling the carcass are at risk of infection, and it is not possible to say how long after death the virus will stay alive. Lower temperature and higher humidity prolong virus survival. Soap and detergent kill rabies virus.

The vaccine given to dogs to prevent rabies and kills rabies virus, so there is no risk of contracting rabies if a vaccinated dog is eaten.

Summary of the management of dog bites

- Clean the wound very well and leave it open.
- Educate your community to clean bites at home
- Decide if there is a risk of rabies:
 - If yes: refer to the hospital
 - If no: treat with antibiotics



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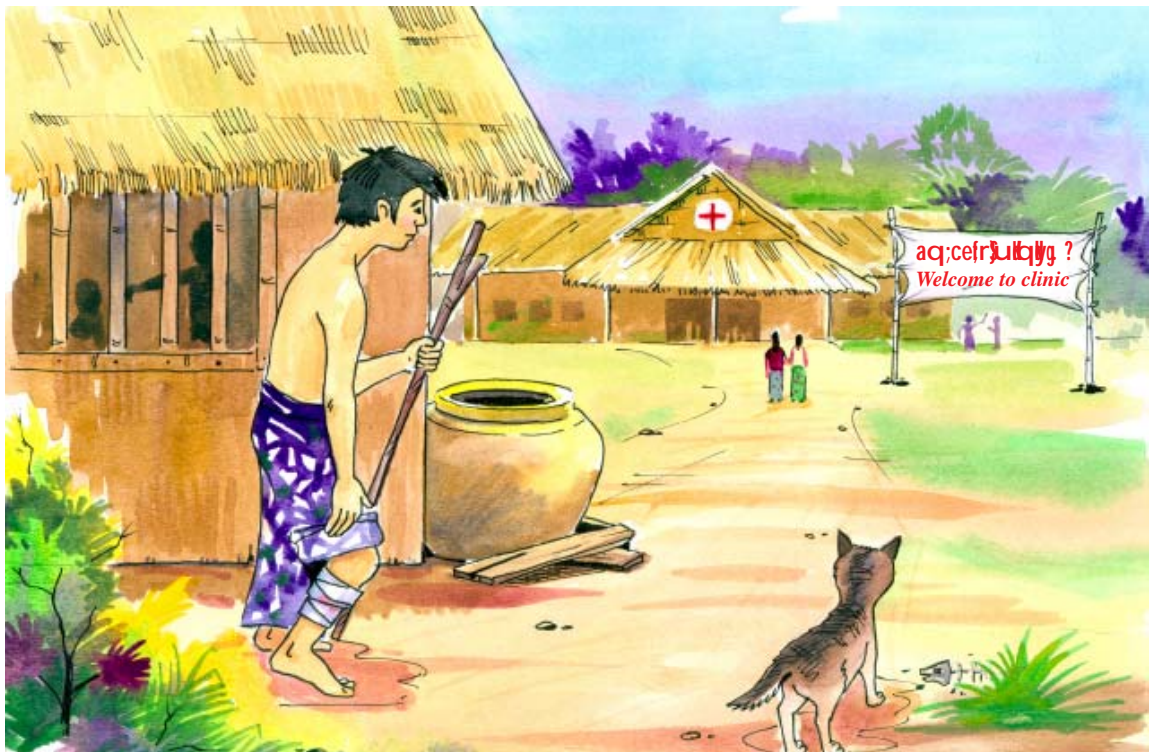
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Prevention of Rabies

Contribution by Elisabeth Emerson, WHO



As human rabies is almost always fatal, prevention is critical. Preventive actions fall into two categories: those things you can do before an animal bite occurs and the things that need to be done afterwards.

Before a bite occurs

- **Avoid being bitten:** First and foremost, avoid being bitten by any animal, if at all possible. Avoid any contact with an animal's saliva, especially when it is on broken skin. To try to prevent this contact, never handle or feed wild animals. Do not try to nurse a sick animal back to health. Especially important, avoid picking up or handling strange-acting or sick animals. Community education is needed here, especially with children.
- **Eliminate reservoir of infection:** While not always possible, the vaccination of all dogs in a community is an effective

way to prevent rabies in humans. In Thailand, the number of human cases of rabies has been reduced through vaccination of dogs, together with improved post-exposure treatment.

- **Protection with pre-exposure vaccine:** Due to cost and availability, pre-exposure vaccine may not be an option. If at all possible, it should be considered, especially with children, in areas where canine rabies is highly endemic and in areas which lack immediate access to medical care. Pre-exposure vaccination still requires post-exposure treatment, but it simplifies therapy and reduces the number of post exposure doses needed.





After a bite occurs

- **Respond quickly — seek treatment immediately:** If an animal bite occurs, fast action is critical. A community needs to be reminded that all animal bites should be reported to the health center as soon as possible.
- **Proper care of wound:** Rapid and correct treatment of an animal bite is one of the most effective mechanisms of protection against rabies. (For details please read article on Page 20).
- **Post-exposure treatment:** When contact with a rabid animal is suspected, the World Health Organization

recommends the use of anti-rabies vaccine as soon as possible for all Category II and III exposures and anti-rabies immunoglobulin for all Category III exposures. Those categories are defined as follows:

Category II – nibbling of uncovered skin; minor scratches or abrasions without bleeding; licks on broken skin.

Category III – single or multiple transdermal bites or scratches; contamination of mucous membrane with saliva (i.e. licks).

Remember: no treatment in the absence of exposure (category I), if history reliable:

- *touching or feeding of animals*
- *licks on intact skin*

Post-exposure treatment (General considerations)

- pregnancy and infancy are never contraindications to post-exposure rabies vaccination
- persons who present for evaluation and treatment even months after having been bitten should be dealt with in the same manner as if the contact occurred recently
- wound should be treated immediately and serum and vaccine therapy instituted as soon as possible after any exposure
- initiation of treatment should never await the results of laboratory diagnosis





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Death of Naw Wa Wa

Dr. Charlotte Godefroit, AMI



This is a story, based on a real life event of how a young woman died of rabies.

Naw Wa Wa was 22 year old and pregnant when bitten by a dog in the camp. The dog bit her leg without giving her a chance to be alarmed. Naw Wa Wa was very surprised at the unusual attack by the friendly dog from the neighbourhood. "I must have upset the dog unknowingly," she thought. She went home and put some home-made medicine over the wound.

Days past by, but the wound did not heal properly. It was swollen, painful and Naw Wa Wa had low fever. She told her mother-in-law about feeling unwell and restless. But she was told that a pregnant woman might experience some restlessness and the wound was not healing because of her weakness. After a week of this incidence, Naw Wa Wa gave birth to a baby girl and did not have much time to take care of the wound.

As the days passed, Naw Wa Wa's attention was drawn to the wound quite often. It was painful and there was a continuous itching sensation. One Friday evening, Naw Wa Wa left the one-month old baby with her mother-in-law and went to the IPD as she could not bear the irritation any more. The medic dressed her wound and gave her some antibiotics. She was kept under

observation for the night. Next day, the itching spread upward upto the abdomen, and later all over the body.

On Sunday afternoon, Naw Wa Wa felt very thirsty and wanted a glass of water to drink, but when the glass of water was given to her, she rejected it. This happened repeatedly. She presented with some convulsions later. She was becoming very excited and agitated.

Monday morning Naw Wa Wa became confused, with some moments of lucidity. Her pupils were dilated. She had some muscular contractions, and was screaming all the time. During one moment of lucidity she wanted to see her baby for the last time, as she had a feeling that she was going to die soon. **Naw Wa Wa died on Monday evening.**

The case was diagnosed as rabies. As the mother was pregnant during the infection, the baby was vaccinated for rabies.

Conclusion: From this case we learn that quick and proper care of a wound is necessary for prevention of rabies. After an animal bite immediate attempts should be made to find and capture it and either keep it under observation or kill it.

- **TAKE IMMEDIATE CARE OF BITE WOUNDS**
- **NOTIFY THE MEDIC IMMEDIATELY**
- **CAPTURE THE ANIMAL AND OBSERVE FOR TWO WEEKS**

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Community Agriculture and Nutrition Workers' Project: An Interview with David Saw Wah

Health Messenger



David Saw Wah has been the leader of the Karenni Refugee Committee for four years and has been working on a project to improve the environment of the camp and nutrition status of the camp residents.

Where did you get this idea to start this project?

During my working period as a KnRC leader, I noticed that we had a large number of people without jobs and also some nutrition deficiencies, particularly micronutrients like vitamins and minerals. Income generating activities are difficult to implement in our situation as local villagers around the camp would regard it as an unfair competition and it might create problems.

I have also observed that raising cattle (e.g. pigs) in the camp contribute to the environmental pollution. So, we decided to re-use the pig faeces as natural fertilizer, instead of throwing them and thereby reducing to some extent the environmental pollution.

My major concern was the inactivity of the camp people, most of whom were farmers. In the camp, they did not practise their skills. The most alarming of all was that the young generation had no opportunity to learn from the experiences of their elders about how to be farmers. If we did not take action, when we would return home in the future, our young generation would not

be able to cultivate our fields. Even if they live in the camp, the young people should be trained on how to become farmers. These are skills that would be easy to bring back when we would return home.

We should also have to learn how to replace our traditional 'slash and burn' agriculture method, which is used mostly back home and is damaging to the environment, with some more environmental friendly ways that does not destroy the forests.

As I knew very little about agriculture and nutrition, I started reading many books on these subjects to improve my knowledge.

What are the problems you have been facing?

People in the camp thought that there was not enough space for plantation in the camp,





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David teaching about earthworms and their importance for soil.

or that the soil was not good enough for this purpose.

I tried to make them understand that it was possible to use even a small space to plant vegetables, and that it was possible to use good soil by recycling and not using chemical fertilizers to keep it healthy. It was also possible to plant and harvest vegetables without soil and to use house garbage and organic liquid fertilisers instead. This project is still under experiment in my garden.

In order to show them that it was possible, I started growing vegetables in an experimental garden two years ago. I experimented with success, using many of the techniques which I have found in books, for example, growing plants in containers, using house garbage to produce compost, recycling, healing the soil. When people inquired about what I was growing, my reply was "I am growing the soil". Yes, this is the most important thing of all: healing the soil as we depend on it! We should emphasize on the need of healthy soil to produce healthy vegetables, which would keep the people healthy.

As for nutrition, many people here prepare and eat a lot of cereals, but not enough protein rich plant food. They do not know that they have to eat vegetables together with cereals to have a balanced diet.

When will you start your project?

This project integrates agriculture, health and nutrition using an individual approach. With the help of CONSORTIUM, JRS and BBC, I have developed a curriculum for a three-month training. IRC have also helped me with the project set up and implementing capacity building programmes.

On the 19th of November, we are going to start the first training on how to create gardens in limited space, refresh environment as well as provide balanced nutrition.

Twenty Community Agriculture and Nutrition Workers are going to take part in the training. After completion of the training they will go back to their respective camp sections and set up model demonstration gardens. This way the population will be able to share their knowledge and learn new techniques. We would like everybody to take part in this process, to come to the gardens, look around, think about it, and do it themselves.

The main idea, therefore, is to communicate with the people who are illiterate and who have no access to other sources of information. And also to share with these people simple agriculture based techniques and ways to prepare healthy food.



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David teaching about vericomposting.



It is important to notice that those gardening methods will not need any investment, but only our labour. We want to depend on our own resources.

What is the nutrition component of the project?

In our project we select the plants containing high concentration of those nutrients and we educate the people on how to grow them in limited areas as well as how to cook them. This training will mainly focus on basic techniques of preventing vitamin loss during food preparation, how to fry and dry food, how to store the food properly, etc.

There are many leaves from the trees, which can be eaten to keep the people healthy. Mainly the well-known plants will be discussed, but we might introduce some



Planting seeds around compost basket.



Students preparing compost basket beds.

We, the Karennis, are basically vegetarians and we seldom eat meat. So we should be able to depend mainly on fruits and vegetables produced in the gardens.

The Karenni people have rich knowledge on plants and herbs, which is applied in our project. For example, I have drumstick trees in my garden and some pregnant women came one day asking for some leaves of the trees for consuming. This way I learnt that the leaves of drumstick trees are very healthy for pregnant women. Our women have known this for generations. This is the nicest part of the programme for me and I learn more from the people than I teach them.

What message would you like to give to our readers?

Actually this program is not only for the refugees but also for everybody and can be applied anywhere. It is for the future when we will go back home.

Mr. Rene Queffelec took this interview on 16th November 2001.



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Container gardening with vertical trellis.



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Stepped basket gardening.

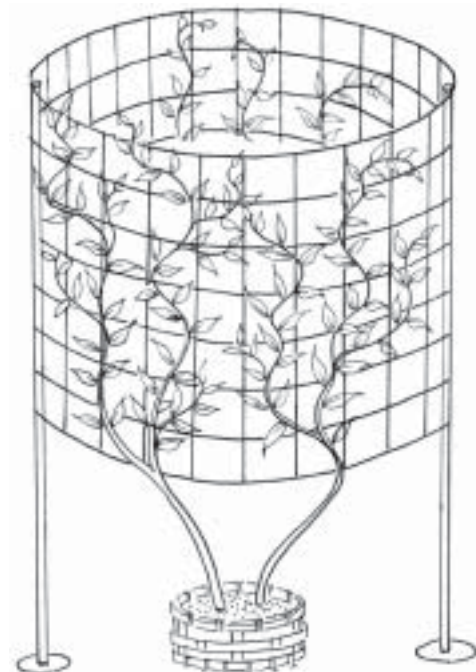


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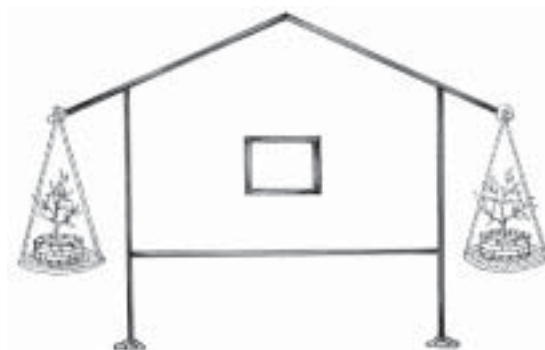
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double basket



Bamboo basket and slender shaped bamboo or wire trellis.



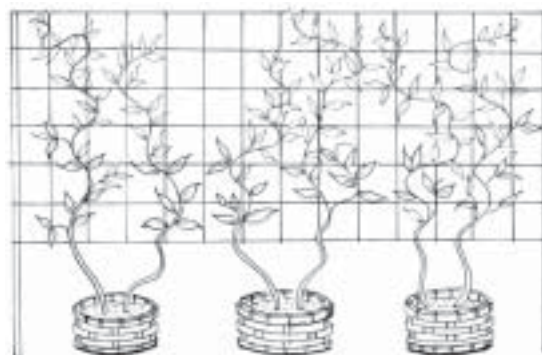
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Bamboo basket and vertical trellis.



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Baskets on the trellis.

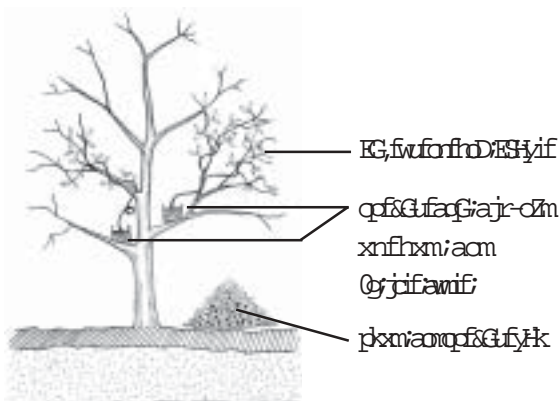
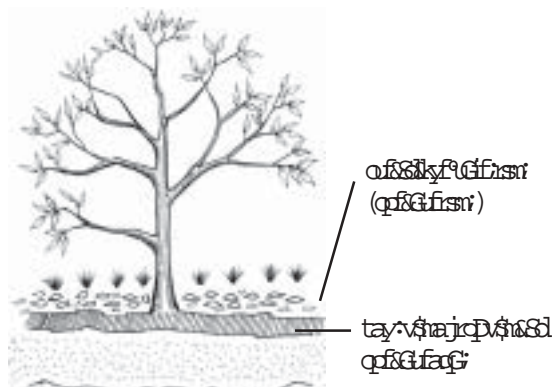


Hanged bamboo baskets.



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Bamboo basket and cover trellis.

Opáwm t wŷ (In the forest)





Container planting in limited space

Container planting is one of the most efficient methods for growing vegetables in limited space.

Almost any vegetable can grow in a container- even corn or pumpkin - although plants that take up a great deal of space are not practical. Miniature varieties of vegetables are especially suited to container growing: they require less space than full-sized varieties and mature earlier.

Containers

Almost any sturdy container can be used for container planting. Plastic or galvanised iron garbage cans, even plastic bags or bamboo baskets can be used. Metal contrainers are strong, but they conduct heat, exposing roots to rapid temperature fluctuations. Metal containers must be lined with plastic for growing edibles. Of course, any type of container must be provided with holes for drainage. Recommended practice is to drill drainage holes just above the bottom rather than on the base of the container.

1. Container Mix (planting medium)

- | | |
|----------------|-----------|
| Garden soil | - 2 parts |
| Compost | - 1 part |
| Builder's sand | - 1 part |

Light sprinkling of bone meal or bat manure and wood ashes

2. For leaf Production

- | | |
|------------------|-----------|
| Garden soil | - 2 parts |
| Compost | - 1 part |
| Builder's sand | - 1 part |
| Fresh pig manure | - · part |

Watering- Plants growing in containers need watering more frequently than they would in a garden - as often as once a day in hot, dry weather. To check for moisture, probe the top 2 inches of soil with your finger. If the soil is dry, soak it thoroughly until water runs out at the bottom of the container.

Fertilising

Container plants need frequent feeding. You should also add fertiliser every three weeks. Use light doses, as, over-fertilizing can damage or kill plants that are grown in containers.

You can fertilise them with liquid fertilisers, or foliar-feed by spraying with doubly diluted of compost tea (or any liquid fertilisers). Start by feeding once every two weeks, adjust the frequency depending on plant response.

In the forest

There are a lot of inedible trees in the forest. The forest floor is rich in composted top soil. By using container planting method these inedible trees can be converted into food trees.

Procedure

- Collect composted top soil of the forest floor and put it into bamboo baskets.
- Hang or place the baskets on the branch of the tree. Then plant seeds or seedlings of vine-crops such as pole beans, pumpkins or cucumbers in the baskets. Root crop such as yam can also be planted.
- Prune all leaves and small branches of medium trees (up to 25 ft), and heap them under the tree to be composted.
- After harvesting of crops (about 3-6 months), the compost will be matured for the next crops, and new leaves will be developed for pruning.

Thus the inedible trees of the forest can be turned into compost/edible trees and living trellis. With this overhead planting, crops are protected from many soil-dwelling animals as well as wild animals.



The slected plants that to be planted in the baskets.

Vegetable	Minimum Container Size	Number of plants / Container
Beans (bush)	2 gal.	6 plants in large containers, space 2"-3" apart
Beans (pole)	4 gal.	6 plants
Cucumbers	5 gal.	2 plants, train vertically
Tomatoes	5 gal.	1 plant
Eggplants	5 gal.	1 plant
Peppers	2 gal.	1 plant
Squash	5 gal.	1 plant
Corn	10 gal.	4 plants, space 4" apart, sow at least 12 for pollination
Mustard greens	1/8 gal.	1 plant, in large containers space 4" apart
Onions	· gal.	16 green onions, in large containers space 2"-3" apart
Lettuce	· gal.	1 plant, in large containers space 10" apart
Carrots	1/8 gal.	3-4 plants, in large containers space 1"-2" apart
Radishes	1/8 gal.	4-5 plants, in large containers space 1" apart
Spinach	1/8 gal.	1 plant, in large containers space 5" apart
Cabbages	5 gal.	1 plant
Chinese cabbages	1 gal.	1 plant
Kales	5 gal.	3-4 plants, in large containers space 16" apart
Broccolis	5 gal.	1 plant



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Agriculture training in Nu Po Camp

Health Messenger



This article is an interview with Saw Lar Hset P'le Htee, Camp leader, Nu Po Camp, who is responsible of the agro training

What is the agriculture training in Nu po?

Usually we organize a 20 day long training course on agriculture and cooking each year since 1997 with the technical support of ZOA. In 1993 I used to conduct a similar training which was for 15 days in a relocation camp inside Burma with the support of SWISS AID. This year 32 people took part in the training and in total more than 200 people have benefited since 1997.

How is the training organized?

This year the training was organized in a training building and its adjacent practice garden. The teachers were Har Grey Loh, Lar Hset, Soe Myint, Ne Wah including myself.

The curriculum have been designed with the support of ZOA, which also rewarded each participant with a gift of basic agriculture tools and some seeds, after successful completion of the training. ZOA also gave jackfruit seeds, which we have planted all over the camp.



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Saw Lar Hset P'le Htee in the garden.

In relation to the training, I have also set up fishponds for fish farming in the camp. I bought the fish fry from Mae Sot and now we have a sizeable production to provide the camp population with an extra protein source.

What is the nutrition component of the training?

During the cooking courses we put an emphasis on nutrition. We taught the people how to prepare a balanced meal for a family, i.e., and the proportion of meat and vegetables. We have been generating messages to encourage eating sweet potatoes, which are not only for the poor but also for everyone. We advised the people to use coconuts, bananas, cabbages and all the kinds of leaves and vegetables, which we can grow here.

What is the impact of the training on the life of the camp residents?

Since we have started the training, many people in the camp have already set up their own gardens. The gardens not only provide extra fresh vegetables and fruit to the families, but also extra income. That is why gardening is regarded as an occupation these days. The producers sell their vegetables and fruit at the camp market to the people of the camp and sometimes to the soldiers and villagers from outside.



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- (6) ? ³ i (f) i (g) (o) (m) ; a (y) (g) (u) (a) (u) (m) (i) (f) & 100 c (e) (l) (l) (y) (g) (u) (e) (f) (w) (u) (e) (w) (f) (x) (n) (b) (i) (l) (y) (g) (o) (n) ?
- (7) ? i (g) (p) (m) (t) (j) (z) (p) (t) (o) (i) (j) (y) (k) (v) (y) (l) (y) (d) i (g) (p) (m) (r) (e) (f) (u) (l) (a) (u) ; y (g) (w) (a) (e) (v) (f) i (g) (p) (m) (r) (e) (f) (w) (t) (e) (u) (f) (6) c (e) (l) (t) (e) (f) (a) (u) ; y (g) i (g) (p) (m) (r) (e) (f) (r) (0) , (f) , E (l) (l) (y) (g) (u) c (u) (l) (y) (d) (x) (r) (i) (f) (o) (l) (l) [(k) (v) (y) & (v) (q) (u) (v) (D) (r) (s) ; E (s) (h) (a) (w) (m) (v) (f) (r) (s) (y) (l) (a) (v) (m) (u) (l) (e) (f) (r) (s) ; u (l) (l) (p) (h) (q) (m) (i) (f) (a) (u) ; E (l) (l) (y) (g) (o) (n) ? i (g) (u) (e) (f) (t) (e) (d) (w) (f) (0) (u) (r) (s) ; o) (l) (l) [(k) (v) (f) (b) (r) (s) ; a (r) (g) (r) (l) (u) ³ i (f) (w) (l) (e) (r) (p) (i) (b) (n) (f) (i) (g) (r) (s) ; t (w) (e) (f) (t) (p) (m) (t) [(m) & j (z) (p) (h) (y) (g) (o) (n) ?
- (8) ? a (v) ; v (r) (s) (i) (g) (v) (t) (w) (f) i (g) (u) (e) (l) (l) (t) (m) i (g) (r) (s) ; u (l) (z) (r) (f) , E (l) (l) (y) (g) (o) (n) ? x (l) (t) c (e) (l) (l) (y) (g) (u) (p) (h) (a) (u) (m) (i) (f) (c) (i) (f) . t (a) (v) ; c (e) (l) (l) (y) (g) (o) (n) (1) u (l) (l) (t) (v) (f) & E (l) (l) (y) (g) (o) (n) ?

How to prepare a fish pond

1. Dig a 15 to 20-sq.m. pond; from 0.8 to 2 meter deep.
2. It should not been covered.
3. Don't put bamboo or plastic inside.
4. Fill with water several times every month to maintain the same water level.
5. Purchase fish fry at the market. 2 species are available in Thai markets: catfish or tilapia. There should be about 10 to 12 fish per kilo.
6. Put about 100 fish in the pond.
7. Feed the fish with ready-made fish food (about 6 mugs of granules per day). Those who cannot buy granules can give the fish cooked rice and ants' eggs and larva collected in the forest. It is also good to raise pigs or ducks close to the pond; the fish can eat pig or duck faeces.
8. After 4 to 5 months empty the pond and collect the fish. Each fish weighs about one kilo.





apmvpupjv&P
Saw Lar Hset P'le Htee.



r&aphs?
Seeds.



y&lyif, f&st;tm; To&P&ly&xm;y&ll
Growing young plants or saplings.



ek&f&P&ly&lyif&st;?
Plants in the garden.



iguel?
Fish pond.



urBm t t l f t p f t x d f t r s w a e @ r s v y & n ; a q m i & l u f r m ;

au t p' Av r' d t l f t m & p e s h a t t m & p d

u B m t t l f t p h e u l 2001 c E p f ' Z i b m v 1 & u h e v o f p c e f t o d o p u s i f y c l u o n ?

r, l v p c e f

c h t m ; u s q i f r a & m * g u m u c f y l s h a & m * g o n f r m ; E s h
t w l w u c a y s m & s p h a e x l l E l l y l t m ; u l l v x k b d d m ;
v n h p & e f & n & g l r, l v p c e f & d K E W G r m ; r s
O p p l u r B m e c h t m ; u s q i f r a & m * g e a v y & n ; r r m ; u l l
j y k v y p p O c l u y g o n ?

p d O l w i q u t c h o m v y & n ; r r m ; r f n -

1/ y l b y l l y f g

2/ u A s m y l l y f g

3/ O w ³ K w l y l l y f g

4/ o d s i q l y l l y f g

5/ p u m ; & n l y l l y f g

6/ t m ; u p m ; y l l y f g

' u l E l y f t a e s h w m h t a v ; x m ; * & j y l y g y d o i h
t a e s h a & m - ' [h o m a q m i y l l E s h u l l c h t m ; u s
q i f r a & m * g t a u m i f p u m ; & n l y l l u l l t x u l w e f
a u s m i f o m ; r m ; t z e s h & y l u l v i , f t z e s , o h y l l
c l u o n ? t x u l w e f a u s m i f o m ; t z e s t q l u l l
a x m u t l l & y l u l v i , f t z e s t q l u l l u e l u b n ?
³ i f t z e s t E l l & c l o n ? t m ; u p m ; y l l y l l t z e t p n f
r m ; / x m e r m ; a u s m i f r m ; t w f & i f E p c i f i r & d a y m f
& s h p & e f & n & g t s u j z i h u s i f y c l o n ?



1/ y l b y l l y f g v f q & o r m ;

12 E s h t m u f

y x r q k - a p m r m u a v ;

' l v d - a p m * & u l x l

w w d q k - a p m a v ; a p m x l

12 E s h t x u f

y x r q k a p m b m a v m r , (t r s w i 2 t x u l w e f
a u s m i f)

' l v d q k - a p m e l e p (Z h o d)

w w d q k a p m a e r l (t r s w i 2 t x u l w e f a u s m i f)

2/ u A s m y l l y f g v f q & o r m ;

y x r q k - a p m * l e o e f y l t ; (T P C)

' l v d q k - a p m r l u l u , l u l e m (t r s w i 3 t x u f
w e f a u s m i f)

w w d q k - a e m l v m b d z m (t r s w i 2 t x u f
w e f a u s m i f)

3/ O w ³ K w l y l l y f g v f q & o r m ;

y x r q k - a p m O l v f r l (t r s w i 1
t v , l w e f a u s m i f)

' l v d q k - a p m a & s h u l l v ; (Z h o d)

w w d q k - a e m l v a v ; (t r s w i 2 t x u l w e f
a u s m i f)

World AIDS Day in the Camps

From KEWG, IRC and ARC



The World AIDS Day was observed on 1st December, 2001 in different camps.

Mae La Camp

The KEWG organized activities in the camp to raise awareness of the people about prevention and how to live happily together with people with AIDS.

The activities of this day included:

1. Drawing competition
2. Poetry competition
3. Short story competition
4. Singing competition
5. Debate and
6. Sports competition

Debate on HIV/AIDS related to the slogan "I Care, Do You?" was between the high school students and community youth. The high school students were proposing the topic. The community youth were against the proposal and they won the debate.

The sports activities were arranged for fun and interactivity among different organisations, sections and schools in the camp.



1. The winners of the drawing competition

Under 12 years

- 1st - Saw Ma Clay
- 2nd - Saw Gret Htoo
- 3rd - Saw Lay Saw Htoo

Above 12 years

- 1st - Saw Bah Therlawmae (No 2 high school)
- 2nd - Saw Nee Nee (Zone B)
- 3rd - Saw Nay Moo (No 2 high school)

2. The winners of the Poetry competition

- 1st - Saw Johnathan Pochu (TPC)
- 2nd - Saw Micheli Marner (No 3 high school)
- 3rd - Naw Larbweh Paw (No 2 high school)

3. The winners of the short story competition

- 1st - Saw Wildom (No 1 middle school)
- 2nd - Saw Shew Mow Kolay (Zone B)
- 3rd - Naw Poe Lay (No 2 high school)



Saw Bah Therlawmae and his winning drawing.

Role play at Karenni camps.

4? HIV/ AIDS Estouqllhom odisqlylyg
yxrqk- apmvm*; (ZHp)
'lvq qk- apma*;vm (ZNat)
wwq qk- tlypbcisf (ZHpDrSvli, ftzlvufg
r, lveuB/ *uluvifesh*mezdbruf myg,
KEWG.

u&iepfef

"u/Elyft aeEsh wmh tav;xm;*&kykyd
oift aeEsh&m--?"

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1 &ube&tw6f u&iEd pcef 3 clw6f HIV/ AIDS
a&m* gulpucllaom vfrs;. ay;qy&aom wezE\$
ywbuhom o&lyaz:uyfsm; ullwiqutluon/
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a&m*G\$lywbuahom jyybvckjyK/lychYon? jyybvif
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cefrw6fuf9; 00 em&D\$ae@vnf3; 00 em&Dt xd
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tp0f 1 ? jyy20y6(tz0r000EshUefrma&
yrmay;)

zēŋt pīt pōlūl pceŋ uŋf rma&; a umf wōŋ
wmōeŋ, lŋpn? HIV/AIDS umuŋ h&; Eŋhyw
oull rēŋf ajm um; &eft wūf pceŋ Ōu UX/ pceŋ
wmōet Eŋt pŋr [lvaom uŋf rma&; t zēŋ pnŋ
rŋ; ul a umf wōŋ ūv um; c lŋpn? a emuft pīt pōŋ
t rōrd t lŋk CHE Ōeŋr f Eŋh uŋf rma&; ul ŋm;
vŋ wōŋ HIV/ AIDS Eŋywbūhōm a [majym
cuŋrŋ; jzplŋpn? HIV/AIDS ul puf yēŋr;
a umf h vŋ&; pēf t ay: wōf t uŋ ūhōm uŋf Eŋ
ywbūl ³ iŋ/ HIV/AIDS a&m* ŋpnŋr. & yllēŋ
Eŋhywbūl ³ iŋ/ CHE Ōeŋr f ŋjŋlŋm; aom
rŋ um; cuŋt opŋ (3) clūl jŋyŋ/ ma& mubŋrŋ; t m;
rŋ um; yllēŋpn?



4. The winners of the singing competition

- 1st - Saw Lergay (Zone C)
- 2nd - Saw Gayler (Zone A)
- 3rd - Group song from Zone C community youth group

Ladda Maelanhkiri, Jacqueline and Jarn Phaboo Macherpha, KEWG.

Karenni camps

"I care...Do you?"

As the globe prepares for the World AIDS Day, the Karenni people celebrated it with enthusiasm and fun. Between November 27 – December 1, different activities in the 3 Karenni camps portrayed what is the price people have to pay if they get infected with HIV/AIDS. Planned and designed by the community with the involvement of the Community Health Educators' (CHEs), songs, dances, speeches, video showing s and role plays proved that these creative learning strategies are more powerful to remind a large number of people of the deadly AIDS.

The events managed to attract the audiences' attention through its comical portrayal of HIV transmission. Camp committee members opened the celebration with their inspirational speeches which all emphasised change in behaviour and improvement of health. Songs were recorded by the CHEs prior to the event and were all played during "the Day" to remind people how to prevent HIV/AIDS. Children and adolescents participated through songs and dances whilst most adults rehearsed and presented role-plays. All the people enjoyed these nights of reflection and fun and the enjoyment ended with a video showing of a man's lifestory and how the AIDS virus made

his life turn into darkness. The Karennis do care...

Lea Reballos, CHW Development Program, IRC.

Nu Po camp

World AIDS day activities this year in Nu Po camp was different from that of last year. Last year we only had a parade around the camp, distributed red ribbons and T-shirts. This year, we introduced the AIDS fair to make the day more exciting for the refugees. Variety of AIDS related activities were set up in the community centre from 9:00 am to 3:00 pm.

Morning session

Activity 1: Opening ceremony (speech and health education)

The camp health committee was responsible for the opening ceremony. The committee invited camp chairperson, camp commander and health NGOs to give speeches regarding HIV/AIDS prevention. Next activity was HIV/AIDS education given by the women's group, a CHE staff and a health affair representative. Three new messages prepared by CHE staff were passed to the participants based on social impact on HIV/AIDS epidemic and rights of HIV/AIDS persons.



u&iēpceŷ O&ŷbzmZmwŷrfwikubeyŷ
Role play at Karenni camps.



t p l t p o f 2 ? HIV/AIDS t o d m % E s h y w b u l
o n l i m % p r f y h i j f

(HIV/AIDS t o d m % E s h y w b u b n l i m % p r f
y h i j f b l v i , f r s r E s h a u s n i f o m ; a u s n i f o r s r ; y o i f
 , o h y h i b e f z u v a c : c h y d t E l l & b r s r ; u l l q k s r ; a y ; c h
y g n ?

t p l t p o f 3 ? y h w m u m ; c y h i j f

HIV/AIDS a m * E s h y w b u l y h i f w c k
u l l z : o n l y h w m u m ; c y h i j f ; o h y h i b e f a u s n i f o m ;
v i , f r s r ; u l l z u v a c : c h y d t a u m i f q h y h w m u m ; c y u l l
u s e f r m a & ; t z p a & f c s , t l y g n ?

t p l t p o f 4 ? y h w m u m ; c y h i j f E s h v u l r f p m a p m i f s r ;
a o i j f i f ?

CHE O e k r f r s r ; o n l y h w m u m ; c y f r s r ; u l l
p c e f t p n i t a o ; c e f r w f p p o j y o c h y d HIV/AIDS
a m * E s h i b m p g i f (u e f f) o k p e y n m a y ; v u l u r i p m
a p m i f s r ; u l l a o i s l y g n ?

a e @ n l y h i f t p l t p o f

t p l t p o f 5 ? A D D y o j c i f ?

& m b m p g i f (u e f f) o k p e E s h y w b u l l 3 i f
HIV/AIDS a m * E s h y w b u l l 3 i f / r b m ; p k t w f
AIDS a m * j z p l y b r ; o r s r ; E s h t w l w u a e x l l f E s h
y w b u l l 3 i f y n m a y ; A D D u l l C H E O e k r f r s r y o
c h y g n l (a m * j z p l y b r ; o r s r ; y h i b a e x l l f a & ; t w l u f u h d
o n l i t a e j z i f r b m ; p E s h i v k t z e t p n f r s v u t h q u b q h



*Elk p c e f o u U X r s e f t c r f t e m ; a j m u m ; a e y l l
Opening ceremony by camp chairperson, Nu Po camp.*

j c i f u l l t m ; a y ; & e f t w l u j z p b n j ?

t p l t p o f 6 ? AIDS j y y f

j y y f t w l u f , m , l y c e f (4) c k u l l v x b n f a o ;
c e f e a b ; w f C H E O e k r f r s r ; r s a q m u f v l y j y o c h
y g n ? AIDS j y y b n f p c e f w f f a d l u Q o n f r s r ;
t j u l u E s h b o u q h t p l t p o f z p l y d v l t r s r ; a y s r & s p h
y o i f q i E s h o m t p l t p o f z p l y g n ?

a t e f [m A b v i f E s h e j y g e f t i a x m i f E l l i h v u m
a t t m & p d

, m , l y c e f	v y & d r ; t p l t p o f
<p>t r d o r E s h AIDS t r d o m ; E s h AIDS v i , E s h AIDS</p>	<p>o w i f t c u l t v u j z e a o j c i f / u p m ; y h i j c i f E s h q h y ; j c i f p m ; y o h i f a q f a E g c i f AIDS a u m i l p l a d a u m i l u s E s h y w b u l l t l y p k h q f a E & e f t r d o m ; 23 - O b u l z u v a c ; c h y g n ?</p> <p>o w i f t c u l t v u j z e a o j c i f / y h w m u m ; c y h i j f o j c i f / u p m ; y h i j c i f E s h q h y ; j c i f (& m b m p g i f u e f f u p m ; y h i j c i f / T u p m ; y h i f n f o n f p c e f w f f a e x l l b r s r ; & m b m p g i f u l l i l l v c f b e f & s u a u m u j c i f u l l a v s b n f a p & e f i f / & m b m p g i f b l p e t a v l t u s i f a p & e f i f n & g f y g n) / v l 5 - O p y o i b n l t z e 2 - z e n f & m b m p g i f s r ; u l l o p b m ; j i f y k v l y b m ; o n l y h l v l a , m u s r ; t * l u p g y c i f j z k v j c i f v # j r e f _ , o h y h i f u y g n ?</p>
<p>CHE-HIV/AIDS t l y p k</p>	<p>o w i f t c u l t v u j z e a o j c i f / u p m ; y h i j c i f / (r h z g u j c i f / y n m a y ; a [m a j y m j c i f E s h q k s r ; a y ; j c i f)</p>



Activity 2: Quiz contest (HIV/AIDS knowledge).

Youth and school children were invited to participate and prizes were distributed to the winners.

Activity 3: HIV/AIDS poster competition.

Invited school kids to draw a picture to tell a story about HIV/AIDS disease. The health affair team selected the best poster.

Activity 4: HIV/AIDS poster exhibition/ pamphlet distribution.

CHE staff set up the poster boards at the camp meeting centre and distributed pamphlets on HIV/AIDS and condom use.



Poster exhibition at Nu Poh camp.

Afternoon session

Activity 5: HIV/AIDS Video show.

CHE staff showed VDO to the refugees about community condom promotion, facts about HIV/AIDS, and living with people with AIDS in the family and community (encouraging the community and families to help the victims live their normal lives).

Activity 6: AIDS fair

CHE staff set up 4 booths next to the community meeting building.

AIDS fair was the most exciting activity for the refugees and a large crowd enjoyed the events and had fun.

Ann Haviland and Nipaporn Intong, ARC International



AIDS fair tent.

Booth	Activities and games
Women and AIDS Men and AIDS Youth and AIDS CHE-HIV/AIDS group	Information counter, poster board, and games & prizes. Round table for group discussion (23 men invited to join group discussion about men concerned with AIDS). Information counter, poster board, and games & prizes. (Condom game. This game is aimed at reducing the community's embarrassment of touching condoms and to practise condom use. Two teams (5 persons for each team) raced to put and take off condom on wooden penises. The team that finished first was the winner). Information counter, poster board, and games (AIDS raffle: HIV/AIDS messages and prizes).



The winning poem : Prevention is the best way to deter AIDS



The world is developing,
Developing in conformity with Age,
Lo ! Regarding AIDS,
It's advancing notoriously too.

Oh! What's this menace called AIDS,
Never have I known thee before,
But now in this age of hi-tech,
It's no longer a secret anymore.

How does one contract AIDS,
Wait and listen till I've finished what I've
to say,
Wait till you hear what I've to explain,
All that relates to the occurrence of
AIDS.

If you all happen to use the same syringe,
It's so easy for you getting AIDS,
If you all happen to use the same syringe,
It would really gladden the virus AIDS.

If you're fond of sensual pleasures,
AIDS disease will be your dearest pal,
So beware! Refrain yourself from de-
sires,
Constraint should be the wiser way.

In case the blood transfusion's a must
when ill,
Random input be not there,
When tainted blood has access into you,
There's no escape from having AIDS.

Once you're down with this threatening
menace,
All expectations of yours disappear in
thin air,
Even though regret you embrace,

You'll discover that it's too late.

Knowing that Darkness awaits you,
In the numbered days of your undoing,
Bliss denied and sadness dwells,
Nothing but a wet deluge in your bosom
swell.

No matter your gender glare,
Each and everyone beware,
Ere the battering ram strike the perilous
cliff,
Jointly endeavour and strenuously
paddle.

To every victim that suffers AIDS,
We should never ever neglect them,
We ought never ever to turn a blind eye,
Instead we all comfort and console them.
You, me, as well as the Karen belles,
Forever in our mind must bear,
Ne'er to tread the path of evil,
Only then will all feel our heart's con-
tent.

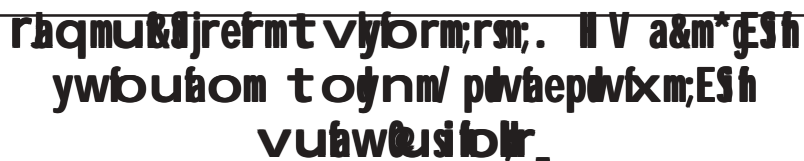
AIDS, the contagion, regardless of sta-
tus spreads,
Prevent, prevent, before it attacks, for
it's the best,
Throughout our remaining days of
breath,
Come! let's join hands to prevent this
foreboder.

*trni- apm*jeoezkt*

Name: Saw Johnathan Po Chu

ilvef-TPC ausni/ Training: TPC School
(Translated into English by Myo Aye,
IRC)

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ulpu _{ff}	85 %	81 %

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rjrizlyg	33 ³ 9	67 ³ 5
jrizlypn?	59 ³ 7	14 ³ 6
royg	6 ³ 4	17 ³ 6
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rohzlyg	82 ³ 0	83 ³ 9
okzlypn?	12 ³ 0	1 ³ 4
royg	6 ³ 0	14 ³ 6
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rumuÇ Elllyg	54 ³ 5	33 ³ 0
umuÇ Elllypn?	21 ³ 9	17 ³ 5
royg	23 ³ 6	49 ³ 5

Knowledge, Attitude and Practice regarding HIV infection among Burmese Migrant Workers in Mae Sot



Dr. Thein Myint (Member of BMA), Health Program Director, NHEC

This article is a summary of a survey done in Mae Sot by Burma Medical Association (BMA) and National Health and Education Committee (NHEC).

HIV/AIDS is a silent crisis in Burma. The Burma Medical Association (BMA) and National Health and Education Committee (NHEC) conducted a survey on July 2000 to reveal general knowledge on HIV/AIDS among Burmese migrant workers in Mae Sot.

A total of 725 factory workers were interviewed and data collected. Over two thirds (67.86%) of the participants were women. Less than 50% of the participants answered correctly, questions on prevention

and transmission of HIV. Generally men consistently scored higher than women did in the prevention and transmission questions. Only 41% of women participants understood that contraceptive pills do not prevent HIV infection and only 15% of women reported ever seeing a condom.

Conclusion

This survey revealed a low level of knowledge, wide spread misconception and lack of awareness about HIV/AIDS among Burmese migrant workers. More broad-based health education is needed for these migrants. The NHEC and BMA will continue health education on HIV/AIDS among Burmese migrant workers and also extend the program among ethnic nationalities inside Burma.

Table 1. Percentage of correct answer by gender of the respondents.

	Male	Female
Transmission	46%	39%
Prevention	45%	31%
Risk	85%	81%

Table 2. Comparison of condom awareness and use by gender.

Question	Male (%)	Female (%)
Have you seen a condom before?		
No	33.9	67.5
Yes	59.7	14.6
Don't know	6.4	17.6
Have you used a condom before?		
No	82.0	83.9
Yes	12.0	1.4
Don't know	6.0	14.6
Can condom prevent HIV infection?		
No	54.5	33.0
Yes	21.9	17.5
Don't know	23.6	49.5



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ANYBODY MAY GET
A DOG BITE...SO BE
CAREFUL.

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From the Field

Nipaporn Intong, ARC International



Some beliefs and practices regarding dog eating and treating dog bites

1. To prevent rabies, the dog that bites is killed and its liver is given to the victim for eating.
2. Some refugees eat dogs to prevent malaria or some symptoms like chill or rigor.
3. Cooked rice is chewed and mixed with the dog's hair (the one which attacked the victim), then placed over the wound for healing the wound and also for rabies prevention.
4. The rabid patient is chained and a sour fruit called Thbuethee or Kohteetha is given to him/her for chewing until the patient gets better or may continue all his/her life.
5. Milky juice of the frangipani tree (or Jumpak in Karen) to paint the wound to prevent rabies.
6. When a childbearing woman has cold hands or feet, a special food made from dog meat (added with alcohol) is prepared for her in order to cure the symptoms. This food is believed to also heal joint pain.

Vaccination of dogs and cats in the camp.

SAN supervisor in NuPoh reported that every year in January all dogs and cats are given rabies vaccines. By the end of 2001, the project has covered one hundred per cent of the dogs and cats inside the camp (this includes the dogs of Thai authorities in the camp). Last year, there was one family that did not bring their dog to be vaccinated as the dog went outside the camp. The earliest a dog or a cat can be vaccinated is when it is 3-months old.

The refugees do not allow SAN staff to vaccinate a pregnant dog, so they have to wait until the dog gives birth. They believe that the dog will not be able to produce enough milk for her puppies. Most of the dog bite cases occurred in October, 2001 (8 cases).



rtESbbl (Mo Mo and Bubu)

Usefirma& apwrmef Health Messenger



Mo Mo had a cute little puppy named Bubú. She was very happy with the dog and always played with him.



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One day Mo Mo saw her friend Min with his cat. "Where are you going?" asked Mo Mo. "To the clinic for vaccination of the cat; have you vaccinated your dog?". "No, I won't, they will hurt Bubu with a needle...I don't like it." Mo Mo replied. "You better go, otherwise it may get infected with rabies, which is a deadly disease," said Min.



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A few months later.. "Bubu is behaving strange, not eating at all and seems excited all the time" thought Mo Mo.



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Bubu was barking all the time and trying to attack whoever crossed their house. The neighbours came to Mo Mo's mother. "Hey, what's wrong with your dog? they said. "It's trying to bite everyone..you better keep it at home".



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Mo Mo tied Bubu with a rope and gave it some water to drink. "May be you'll feel better after drinking some water." But the dog moved away from the bowl and bit Mo Mo, who was near.

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a j m v l u a v o n?



A neighbor asked the mother to take Mo Mo to the clinic, but the mother said "It's our pet dog, so no need to go to the clinic. I can take care of the wound at home."



Days passed by, but Mo Mo's wound was not healing. Instead, she had an itching sensation there. Bubu became more restless and so did Mo Mo.

She became agitated, could not eat or drink and was afraid of water. Froth was continuously forming in her mouth.



Seeing her daughter like that, Mo Mo's parents called in a medic. But it was too late.



"We should have vaccinated the dog and should have taken Mo Mo to the clinic earlier.... now we have lost our daughter."



Health Messenger



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Questions from the field

*Questions collected by Nipaporn Intong and Ann Haviland, ARC International
Answers with the help of Dr. Prasert Thongcharoen, Vice President, Mahidol
University*

Questions regarding dog bites and rabies

Q. At what age should a dog or a cat be vaccinated against rabies?

Ans. The vaccine should be given at the age of 3 months and then revaccinate at the age of 6 months. In Thailand we suggest to revaccinate every year.

Q. If someone is bitten by an unvaccinated dog or cat, is there a possibility that the person gets rabies, even if the animal looks healthy?

Ans. Yes it is possible. In many countries, the suspected animal is kept alive, and isolated for a 10 day period of observation. If after 10 days it does not develop or show the signs/symptoms of rabies, then it is not infected. But even it looks healthy at the moment of biting, it may develop rabies later.

Q. Even if a dog or cat has been vaccinated, is there a chance to get rabies from its bites?

Ans. Yes, the antibody response is not 100%. A single injection is not enough. At least two or three injections are needed to ensure protection.

Q. If an infant is bitten by an animal, does he/she need TT injection, or is the immunity he/she has got from the mother is enough to protect him/her?

Ans. If the infant has received routine immunization, he or she may already have received DTP, then no need for T or TT injections. If not, TT is needed. Trans placental immunity is not sufficient for protection.

Q. Is there a vaccine for humans to prevent rabies?

Ans. Yes. It can be used as pre-exposure prophylaxis and post-exposure treatment. Verorab, PCEC, and HDCV are among the safe and potent vaccines for human use.

Q. Can rat bite cause rabies?

Ans. Yes. Not only rat, but also, ground squirrel, bat and monkey can transmit rabies virus.

Q. Can someone get rabies by eating rabid dog meat?

Ans. Yes. If someone has scars in the mouth and eats rabid dog meat, there is a danger of getting rabies. It is always recommended to keep the animal alive for 10 days for observation, or to kill and send its head for examination.

Glossary (cuḡpft "dḡ &šfvišcufstḡ)

Droping:	Production of excessive saliva. oḡtḡnḡstḡpḡxḡjciḡ
Faeco-oral route:	Disease that is spread through faeces and enters the body through the mouth, with food or drink. a&m*ḡtḡstḡcE<mull ft w&šolḡpifšvqiḡDi&muḡciḡEšht pmḡt aomuEšh t wlyḡpyfšvqiḡDi&muḡciḡ?
Growl:	To utter a deep guttural sound of anger or hostility. (a'ḡEšh) (&elḡbjiḡ) vn&csmiḡoEšh[dḡonḡzbnḡ
Guttural:	Pertaining to the throat. Harsh; throaty. vn&csmiḡEšhyubuḡom/vn&csmiḡrS/maom/
Hostility:	A hostile state, condition or attitude or enmity. &elḡomḡtaet xḡmḡt ajcḡtaeḡpḡv&eoabmxḡmḡ&elḡvḡjciḡ?
Lucidity:	Clearness of the mind. (ḡvḡzmuḡjye&e&mḡšc%wm) ḡvḡfunḡv i&ejciḡ?
Malaise:	General discomfort, uneasiness, or ill feeling. rtḡomzḡjciḡ/rḡtḡom&ḡciḡael xḡll raumiḡjciḡ?
Peritonitis:	Inflammation of the peritoneum (a membrane covering the organs inside the abdomen). Orḡw&ajrḡS(OrḡAlḡft w&š&et *ḡstḡt mḡum&ḡkmḡaomḡtajrḡšḡ) a&miḡrḡjciḡ?
Phonation:	The utterance of vocal sounds. pumḡoḡjḡvḡjciḡ?
Splenectomy:	Total or partial removal of the spleen. o&u&elḡfwckḡv(olḡwpḡvḡvylḡxḡwḡypḡciḡ?
Utterance:	An act of uttering; vocal expression. The power of speaking. ajymḡqḡjciḡajymḡqḡjḡpumḡoḡjḡiḡhzmḡjciḡ/pumḡajymḡqḡllḡhompḡet mḡ?
Unprovoked attack:	An attack caused by no anger or stimulation; the victim is totally unaware of the attack. a'ḡrijzḡpyḡvḡqḡmḡtḡ&ḡjḡ&ejḡjciḡ? &ejḡjclḡobnḡi&ejḡjclḡrnḡ[k vḡDowḡtrḡḡḡ

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You can answer either in English or in Burmese. Write down your answers on this sheet and please return to the following address by 31 April 2002. The best 200 will receive a prize. Put or in blanks for correct answers.

Health Messenger Magazine Program

117/9 Sukhumvit Soi 4, Soi Samaharn,
Klongtoey, Bangkok 10110
Thailand.

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a) This portion (1-5) is to be answered by medical personnel (medics, nurses, medical assistants, back-packers, lab technicians) and those concerned with treating patients:

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1. Name the parts of a tooth.

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2. Name the stages of the life cycle, of the mite that causes scrub typhus.

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3. What are the main components of the lymphatic system?

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 onhtaumif trnfuhzmjyfg

13? at; lpat*plwD tjcm;trnfn tb, fnf?

14? u& tE<mtw&f t"lvlt yhom
 tm [m&rn;rfn tb, fnf?

15? u& Defqmiftr&orDwDtaejzihus&ma&;
 vlybm;rn;xbl&taumifum;oihom
 tE W&m, lvuQ%ma v;rluhzmjyfg
 u).....
 c).....
 *).....
 C).....

16? ofn;w&gzp&om tcllt acgfaygubnfn
 tb, fnf?

17? atmulazmjyfg tm [m&rn; ae0lvlt yhom
 twllftwmul&a&om;azmjyfg
 u) Advmrif&t.....
 c) AdvmrifbDrf.....
 *) ofhgvf.....

18? vlwpDtaejziholr. b0wav&nuv&lv&f
 ofn;tplnf&lllygv!4ifw& trnfn;Esh
 ta&tw&furn;ulazmjyfg

c) This portion (11-22) is to be answered
 by both medical and non medical per-
 sonnel:

11. The most common clinical symptoms
 of Scrub typhus are:

- a)
- b)
- c)
- d)

12. Name the vector of Dengue fever.

13. What is the other name of *Aedes aegypti*?

14. What are the main nutrients of the body?

15. Write down four danger signs for which
 a pregnant woman should report to the
 health worker:

- a)
- b)
- c)
- d)

16. What is a dental cavity?

17. Write down the daily requirement of the
 following nutrients:

- a) Vit A.....
- b) Vit B1.....
- c) Iron.....

18. How many sets of teeth does a person
 have during his/her lifetime? Mention
 their names and numbers.

19? uH tE<mt wGf&gje&na=um vrfa=umifonf
rnlonft &mrsn;uHb, hqmilypenf?

19. What do the lymph vessels carry?

20? qifuDa&m*izpapaomt a=umifullazmlyy?

20. What causes filariasis?

21? b, Bb, B(ximple) fázmem) qbnrfn
tb, énf? b, Bb, B(trstpm;trnfr;uul
azmfyyd

21. What is beriberi? Name the types of beriberi.

22? r6V#f(✓) E5hr6;v#f(x) a&yq

22. Write (T) for True and (F) for False statements:

u) $\frac{1}{2} \ln \frac{1}{2}$ ()

a) Eating sweets is good for teeth. ()

c) viwa, mubnfae00bf;wubifon? ()

b) A person should brush his/her teeth

*) rdbm; p d i f w p d c s i f w f i o l o r u l y i l b o r y o w i f l
o r w i l u w f b i o n ? ()

every day. ()

C) at:'lpfat*plwllbnf1³5 uD/vllvnr5 uD/vD
wm tuñta0:xdy4llbn? ()

c) Each person of a family should have his/her own toothbrush/brushstick. ()

i) at: 'Decision on the Commission?'

d) *Aedes aegypti* can fly from 1.5 km to 5 km, in distance. ()

()

e) *Aedes* mosquito bites only at night time.

p) $y = \ln x$ va $y = \ln x^2$ funksiyalarining qandaydir bitta nuqtasida kesim nuqtasi bo'ladimi? ()

()

q) toufi, homuav;rm, onfAdvmriatctdvh
icifa&m*izpEilajcr&f? ()

f) Lymphatic filariasis can cause “elephantiasis”. ()

Z) reirrt*ltacgrsao6x6jciionful Del.
tEW&m, &domvuQ%mwptczpbn? (

g) Young children are not susceptible to vitamin A deficiency. ()

)

h) Bleeding from the vagina is a danger sign in pregnancy. ()

p3 om,t t f u b m,r s, v D u s e i f, n p c i f r & b n i
t c d w f o m, t t f u l v e f, c j i f o n i t E W & m, f
& b n i? ()

i) It is dangerous to push the uterus when there is no contraction. ()