

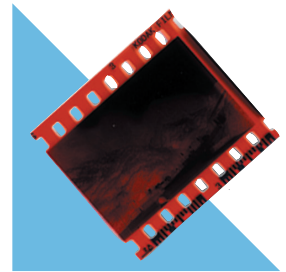
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Chapter Six



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Vision



I. Hightened Public Awareness

If a region had no incidence of a specific infectious disease over a long period of time, its public would naturally relax their guard against the disease. The Taiwan region has experienced outbreaks of enterovirus, indigenous dengue fever and SARS, and its public has gradually built a deep understanding of the importance of public health. The eradication of malaria is a hard-won achievement, but there are still cases of malaria mortality from imported *P. falciparum* infections in Taiwan, making the severity of this life-threatening disease a public concern. The promotion of malaria prevention concepts should be enforced by health education through all types of media, including the websites of various organizations, electronic visual broadcasts, and antimalaria leaflets, to pass on to the public important notices relating to trips to malaria-risk areas and promote correct understanding of malaria.

II. Improved case reporting at medical institutions

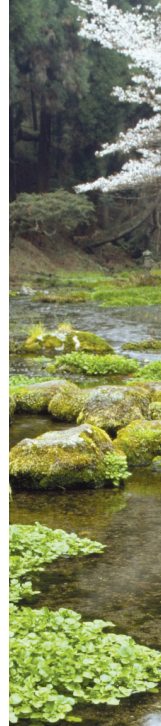
Currently most of the malaria cases reported are non-indigenous, and a closer examination of the patients' backgrounds reveals that the majority of the patients often travel to malaria-risk areas for business, family visits and work, or are people who travel to other countries for leisure. As there are only a handful of cases every year, medical institutions have little or no knowledge of the disease. From the standpoint of disease prevention, medical personnel are encouraged to verify any suspicion immediately by blood examination and to report the case to the relevant authorities, in order to avoid delayed treatment or even the spread of the disease.

III. Enhanced accuracy in blood smear inspection

- (I) Holding training and workshops on identifying malaria parasites to improve the ability of identification at grassroot health and medical units, and to facilitate the treatment of patients and relevant prevention measures.
- (II) Enhancement of clinical doctors' ability to diagnose and treat malaria.

IV. Strengthened cooperation between relevant organizations

- (I) Maintenance of effective lines of communication with other government organizations, such as the Council of Labor Affairs in charge of foreign worker policies, the Environmental Protection Administration in charge of environment and health, the household registration institutions that provide household registration data in emergency antimalaria measures, the quarantine sections of the Council of Agriculture responsible for providing information on the outbreak of zoonotic diseases, the Ministry of Transportation and Communications and the Tourism Bureau, which provide information on international health and important travel notices, and immigration units and airlines whom tourist groups returning to Taiwan should contact upon discovery of any imported cases – these are the essential assisting units in the implementation of operations in the future. In malaria control operations in the past, large-scale blood collections for malaria detection had relied on the household registration data provided by civil administration and household registration units; while the elimination of vector mosquitoes had been carried out with the collaboration of environmental protection and agricultural administration units. In other words, the smooth execution of malaria control operations has depended on cooperation and teamwork, and the maintenance of a state of malaria eradication has been sustained by the active participation of the public.



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(II) Maintenance of healthy interaction with county and city health bureaus, so that malaria cases reported by a health bureau can be treated without delay; in other areas, close collaboration in the distribution of antimalarial drugs, the epidemic survey of reported cases and the surveillance of vector mosquitoes, together with the promotion of health education among patients, will increase the efficacy of disease prevention work.

V. Continued monitoring of vector mosquitoes

More in-depth studies of the vector in malaria epidemiology are to be conducted using data from surveys of the ecological distribution of *Anopheles* mosquitoes. In localities free of the vector mosquitoes, such as Japan, there is only the issue of treatment when a malaria case is found; whereas in places with vector mosquitoes, there is the issue of disease prevention to consider. In 2003, two cases of introduced malaria were found in Taitung County, and new breeding grounds of *An. minimus* (Jinlun Village of Taimali Township, Hsinhua Village of Daren Township and Dadao Village of Dawu Township) were discovered, following a vector mosquito survey. In addition, as Taiwan is prone to earthquakes and typhoons, the ecology of vector mosquitoes is easily disrupted, so the monitoring of vector mosquitoes will remain a most important task and will be conducted on a regular basis

VI. Development of new inspection and diagnostic techniques

The CDC has developed a diagnostic technique of PCR as a preliminary tool for mass screening; as the process takes four hours, it is currently used as a supplementary tool to microscopic examination. In the future, the development of malaria inspection and diagnostic techniques should advance towards establishing RT-PCR (real time PCR) techniques to improve the speed of molecular diagnosis for malaria, to ensure that the people of Taiwan receive proper therapeutic treatment against malaria within the shortest time possible after being infected with the disease, so as to lower mortality rates. RT-PCR can also be used by blood donation units as a screening tool to ascertain the safety of blood.

In addition, in the cooperation with Sao Tome and Principe on the Malaria Control Program, Taiwan can consider developing a system for malaria drug resistance gene detection to support the project and future collaborative research with other countries.

VII. Promotion of international cooperation

Among the experts, scholars and antimalaria personnel who led the Malaria Eradication Program in the Taiwan region to its completion, some have been engaged by the WHO as advisors in antimalaria operations. It is important for us to remain in touch with these experts, who have invaluable, practical antimalaria experience, and to consult them in prevention work in the future.

The current Malaria Control Program for which Taiwan is collaborating with Sao Tome and Principe aims to assist our diplomatic ally in combating malaria by drawing on the Taiwan experience. Considering that there have been few cases of the disease in the maintenance phase and that there is a shortage of antimalaria personnel, the path forward should lie in training antimalaria personnel and passing on valuable experience through the promotion of international cooperation.