

HEALTH AND DEVELOPMENT

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New weapon against malaria

Mosquito-repellant soap may soon be included in the list of man's innovative weapons against malaria. Tests supported by WHO in several countries of the Western Pacific Region showed its effectiveness in providing personal protection against mosquito bites.

Such a soap formulation, containing 20 percent deet and 0.5 percent permethrin, has now been developed by an Australian scientist.

Soap containing one percent permethrin, but without deet, is very effective in killing head lice and has been found to kill mosquitos trying to feed on people who had used the soap.

The use of mosquito-repellent soap would be of maximum benefit in areas where one can get severe (cerebral) malaria or where the malaria parasites have developed resistance to antimalaria drugs. Workers in rubber plantations, timber or logging concessions, gatherers of forest products or people who live in forest fringes, soldiers and health teams exposed to malaria would get good antimalaria protection from the soap formulation. Using the soap on exposed areas of the body gives protection from disease-carrying bites of mosquitos.

The new soap costs only about 20 US cents per 40-gram bar, of ten times or more cheaper than ordinary commercial repellents.

Furthermore, some tests indicate it could give longer protection can occur if the soap suds are left to dry on the skin and not washed off.

Permethrin is non-toxic and no reports of ill effects have been reported thus far. It is safer than many common substances such as salt or aspirin, although liquid formulations should be stored away from food and kept beyond the reach of children.

In a powder formulation, permethrin is also used for the control of body lice. It does not accumulate in the body like DDT. Permethrin is also recommended for spraying aircraft in countries where spraying is carried out before passengers disembark. In this context, deet has been used as a repellent for many years in commercial formulations.

Field tests show a definite advantage of soap to other repellent which are sold in the form of lotion. The lotion evaporates rapidly; soap, on the other hand, adheres firmly when applied on moist skin. The soap has been found to be acceptable to health workers in Malaysia, Papua New Guinea, Samoa, Solomon Islands and the Philippines.

The Western Pacific Region of WHO has been the first to conduct extensive studies and field trials on the use of soap as an antimalaria measure. WHO is planning to recommend a joint project with the Philippine Government for the production of mosquito-repellent soap in villages of Tawi Tawi Province, southern Philippines, where malaria is rampant. This project would utilize locally-available coconut oil for the soap.

The Australian scientist will be recruited as a consultant for this technology transfer activity, in teaching villagers how to make it. Another community approach to killing malaria-bearing mosquitos involves the impregnation of permethrin into mosquito nets, carried out now in all nine malarious countries of the Western Pacific Region. In villages where these nets are used, significant reduction in mosquito densities and malaria parasite rates have been reported.