



Executive Summary

PACOM Regional Military Meeting Forum

Phnom Penh, Cambodia

11-13 August 2014

The United States Pacific Command (USPACOM) and the Armed Forces Health Surveillance Center's Division of Global Emerging Infections Surveillance and Response System (AFHSC-GEIS) sponsored a multi-lateral international engagement focused on malaria elimination. The three-day meeting, PACOM Regional Forum on Malaria Control and Elimination among Military Populations, was organized from 11-13 August, 2014 in Phnom Penh, Kingdom of Cambodia. The conference involved participants from both ministries of Health and Defense from several Southeast Asian countries to discuss integrated approaches to eliminate/eradicate malaria from the region. Participants from the Presidential Malaria Initiative, Gates Foundation, Global Fund and the World Health Organization (WHO) enhanced the value of these discussions, contributing strategies to address the immediate need to address the threat posed by malaria.

The first day of the meeting kicked off with opening remarks from LTG Kong Saly of the Royal Cambodian Armed Forces (RCAF). LTG Saly emphasized the importance of maintaining our focus on malaria, stressing the critical need for continuing intervention efforts, stating simply, "mosquitoes will continue to bite!". Highlighting his support of the meeting, he identified the workshop as a vital opportunity for the group to share practices and experiences on reducing the burden of drug resistant malaria. Opening remarks for the US delegation were delivered by CAPT Kevin Russell, Director of the U.S. DoD Armed Forces Health Surveillance Center. CAPT Russell underlined historical examples that demonstrate proven productivity and value of group collaboration across military and civilian sectors. Drawing on one of the most notable examples of multi-lateral collaboration, Walter Reed's renowned work with Yellow Fever, he illustrated the invaluable potential of multi-faceted partnerships. This track record of success emphasized his call for a multi-sectorial approach to combatting malaria.

A series of guest speakers followed the opening remarks, starting with Professor Dennis Shanks of the Australian Malaria Institute. Dr. Shanks provided an overview on the challenges of military malaria treatment and prevention in SE Asia. History informs us how quickly malaria can impact military personnel. There are challenges with any given individual approach and he spoke to multiple approaches that are taken to combat malaria and emphasized the prevention of malaria needs to be a multi-faceted approach. Civil strife and the deployment of peacekeeping forces represent a threat to military populations. Following, LTC Lee from the Singaporean Armed Forces presented on Malaria control and prevention for Force Health Protection. While Malaria is not endemic to Singapore, there are areas such as Palau Tekong that are receptive to the introduction of malaria. LTC Lee reviewed the



Swiss cheese model and the aggressive multi-layered approach (their four rings of prevention) to reducing the threat of malaria on this island of Palau Tekong and to Singapore. Despite the intensive resources behind this effort, this model can be adapted and applied to other regions.

The speakers for the day concluded with Dr. Tom Kanyok from the Bill and Melinda Gates Foundation talked about the efforts of the BMGF on malaria elimination and the goal to eliminate *P. falciparum* as quickly as possible from the region. Eradication is the only long-term solution. The Gates malaria strategy is based on a five step analytical framework. There are numerous approaches from the malaria toolbox that can be adapted for how we eliminate malaria from a given region. As evolution has shown us, until you bring the parasite population to zero, there is always the risk of malaria re-emerging. Approaches must consider the evolutionary response that may occur to an intervention that is selected and strive for interventions that do not have a detrimental evolutionary response. The importance of the asymptomatic reservoir was emphasized as a key focus to eliminating malaria and the need to focus on complete cure of all stages on the parasite, not just clinical cure of symptomatic patients. There is also the need for more sensitive techniques such as PCR as opposed to RDTs. Adapting approaches to this region is key, as there is not a one size fits all approach to any given or combination of interventions. We need to determine ways to work together; history has shown that elimination of malaria in a country can be sustained. We must achieve complete cure with the tools that we have today, tools five years from now may not be soon enough and strategies need to be designed around what we have now.

The afternoon was dedicated to country presentations from all representative nations, following up from the Da Nang Global Fund Meeting in June. Participants were asked to use the Global Fund proposals in individual-country breakout sessions to further discussion and identify opportunities for additional development.

The second day of the meeting began with opening remarks from RADM Colin Chinn, USPACOM, who emphasized the importance of collaboration and working together on the strategic goals of eradicating malaria. The importance of traditional measures coming together to build eradication programs (building off the themes emphasized by Dr. Kanyok the day before). This was followed by a presentation on the efforts of NAMRU-2 in the region and supported with a demonstration of the use of electronic disease surveillance to improve compliance with International Health regulations and communication of disease data. We were able to see an example of this with the Royal Cambodian Armed Forces collaboration with NAMRU-2. Day two continued with talks on the importance of Force Health Protection and pre-deployment readiness. This discussion provided an understanding of the concept of medical readiness, key concepts in preparing for the mission, important steps is assessing medical threats prior to deployment and the key components that make up a medical threat brief.

CAPT Beavers, AFPMB, presented on current and developing personal protective measures in the U.S military that included repellants, bed nets, and uniform treatments. He also included discussion



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of developing textiles and products that could be adopted as future personal protective measures. For a live demonstration, the group took a trip to the US Embassy field grounds. CAPT Beavers and his team demonstrated the proper use and steps for personal protective measures. The day wrapped up with discussion lead by LTC Cummings, USARPAC, on what products are available that may be of benefit to countries military populations.

The final day of the meeting began with a presentation by LTC Saunders regarding AFRIMS efforts to advance Malaria Prophylaxis. Following, CAPT Von Thun gave a brief review of the survey highlighting the risk of malaria to military personnel among the countries represented at this meeting and better understanding on the use of PPM and challenges associated with it. Before the meeting concluded, country groups had the opportunity to breakout and conclude and finalize discussions from the previous afternoon. This was their final opportunity to identify what protective and preventative products they could potentially benefit from, as well as wrap up due outs from the Global Fund proposals. The breakout sessions also gave the participants a unique opportunity to meet with Gates Foundation, WHO, and Global Fund in an intimate round-table environment. The meeting concluded with final remarks by CAPT Russell. His closing comments observed the recurring themes, repeated throughout the meeting: the criticality of multi-lateral collaboration and capitalizing on aggressive preventative measures currently available to all who might benefit.