श्री चित्रा तिरुनाल आयुर्विज्ञान और प्रौद्योगिकी संस्थान, तिरुवनन्तपुरम- 11, केरल
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Invitation to attend the AMC Seminar

We are pleased to invite you to attend the AMC seminar:

Dr. Sandra Albert
Director, Indian Institute of Public Health Shillong (IIPHs)
Meghalaya

Topic:

" Malaria in Meghalaya: towards elimination, the CSCMi experience
The challenges and charm of working in India's northeast "

Date: ***25 May 2023***
Time: ***2:00 PM to 3:30 PM,***
Venue: ***AMC Seminar hall,***

You may also join electronically at

https://us02web.zoom.us/j/89970301017?pwd=aG9wL2MzSDlRZFNVR3lOTHBNSVd6dz09

Meeting ID: 899 7030 1017 Passcode: amc

A note on the talk and a short bio of the speakers is attached herewith.
We look forward to your participation in this seminar.
Yours sincerely

डॉ. बिजू सोमन/ Dr. BIJU SOMAN
प्रोफेसर और प्रमुख/Professor & Head
एएमसीएचएसएस/AMCHSS

Profile of the speaker – Dr. Sandra Albert

Sandra Albert is the Director of the Indian Institute of Public Health in Shillong (IIPHS), in northeast India. She is a dermatologist with an MD and DNB in Skin & Sexually Transmitted Infections. From clinical medicine she broadened her field of interest to public health and received a Doctor of Public Health (DrPH) from the London School of Hygiene & Tropical Medicine, UK. Subsequently she became the founding director of the IIPHS. Her research interests include health systems, health policy, skin disorders, sexual and reproductive health, vector borne diseases and indigenous knowledge. The IIPH Shillong was established to redress the limited institutional and systems capacity in public health in the northeast region of India. At IIPHS she also established a Regional Resource Hub for Health Economics for doing economic evaluation; a collaborative initiative with the Department of Health Research, Ministry of Health & Family Welfare. With a recent CRC award by DBT - Wellcome Trust India Alliance, Prof Albert and her team are setting up a Zoonotic & Vector Borne Diseases Training and Research Centre at IIPHS.

A brief on the talk

Malaria in Meghalaya: towards elimination, the CSCMi experience
The challenges and charm of working in India's northeast

Sandra Albert, Director, Indian Institute of Public Health Shillong, Meghalaya

Incidence of malaria has precipitously declined in the malaria endemic Meghalaya state since 2016, despite climate conditions conducive for perennial malaria transmission. Potentially, the introduction of long-lasting insecticidal nets (LLIN) by the National Vector Borne Disease Control Program helped the reduction in prevalence. As part of the NIH-funded collaborative initiative with NYU, USA and other partners a Center for the Study of Complex Malaria in India (CSCMI) was set up in Meghalaya. CSCMI conducted active case surveillance through community-based, cross-sectional surveys in 31 villages from three districts of Meghalaya (West Jaintia Hills [JH], West Khasi Hills [KH] and South Garo Hills [GH]), selected on the basis of a relatively elevated 2016 annual parasite index. Facility-based passive surveillance was also conducted in four primary health centers (PHC) in the same districts from 2018-2021. A total of 3729 participants were enrolled in the cross-sectional surveys, of whom 3599 (96.5%) provided blood samples for testing; 55 (1.5%) had *Plasmodium* infection detected by RDT or PCR. Infection prevalence was highest in GH (22/902, 2.4%) followed by KH (17/1234, 1.4%) and JH (16/1463, 1.1%); village-level infection prevalence ranged from 0-12.8%. Most infections (34/55, 61.8%) were sub-patent (RDT negative but PCR positive), and all were *P falciparum*. Of the 1062 participants with malaria-like symptoms enrolled in the PHC-based surveillance, 1054 (99.2%) provided blood samples. Of these participants, 46 (4.4%) had *Plasmodium* infection, including 18 (39.2%) with *P. vivax*, 27 (58.7%) with *P. falciparum* and 1 (2.2%) with mixed (*P. vivax* + *P. falciparum*) infection; almost all *P. vivax* infections (18/19, 94.7%) were from JH.

To understand adoption of malaria control measures we also observed household (HH)-level administration of indoor residual spraying (IRS) and LLIN. In 2019-2020, our research teams accompanied the NVBDCP teams to observe deployment of LLIN, and record HH-level data on net numbers and use. People generally made appropriate use of LLIN, except during overnight travel or when working in agricultural fields. However, of 1,079 occupied HHs that were visited by the spray team for IRS treatment, 632 (58.6%) refused to allow any spraying, only 198 (18.4%) agreed to be sprayed, comprising 152 (14.1%) HH that were only partly sprayed, and 46 (4.3%) that were fully sprayed.
The results depict a heterogeneous distribution of *Plasmodium* infection in Meghalaya with a high proportion of asymptomatic carriage. These findings highlight the need for continued surveillance to prevent malaria resurgence in low-transmission settings.

The presentation will also highlight the challenges and charm of working in the northeast region of India.

Keywords: Malaria, transmission, northeast India, submicroscopic infection.