

INTERVIEWS



Prof Pankaja Raghav
AIIMS, Jodhpur



Mr Sanjeev Gupta
ICMR-NIMR

Upcoming Event
Lecture Series on Infectious Diseases



Lecture 07:
Dr Shashank Tripathi, IISc
27th Dec

NEWS & VIEWS

Issue 14, December 2021



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Malaria Elimination Research Alliance



/meraindiaicmr

Editorial

Dear Readers,

MERA-India team brings to you the fourteenth issue of our newsletter.

Recently, WHO released the much awaited World Malaria Report 2021, providing a detailed account of the global malaria burden and an assessment of our progress in fight against malaria during 2020. The estimated number of malaria cases and malaria-deaths were higher in 2020 than 2019. Disruption of health-care services because of COVID-19 was responsible for about two-thirds of the excess malaria-deaths in 2020. We have highlighted the key points of this report in this issue.

Last month, ICMR-NIMR, Delhi celebrated its annual day, and we have provided a brief account of the event. In November, we had the pleasure of listening to the lectures by Professor David Sibley (Alan A. and Edith L. Wolff Distinguished Professor of Molecular Microbiology at the Washington University), and Professor Shyam Sundar (Distinguished Professor at the Institute of Medical Sciences, BHU). While Professor Sibley spoke on the strategies to design therapeutics for latent *Toxoplasma gondii* CNS infections, Professor Sundar provided an update on the advances in the diagnosis and treatment of visceral leishmaniasis. Brief summaries of both the lectures are provided in this issue.

In this issue, we have listed interviews by Professor Pankaja Raghav (Head of Department of Community Medicine and Family Medicine at AIIMS, Jodhpur) and Mr Sanjeev Kumar Gupta (Technical Officer-C at ICMR-NIMR, Delhi). We hope that the readers would find these interviews stimulating and motivating.

We have featured four recent malaria-focused publications in the “Research in Spotlight” section, which we feel that the readers would find interesting to read. In the article published in Sci Rep by Carl AL *et al.*, the authors have shown that the *Plasmodium* infection in the mosquitoes confers physiological and reproductive advantage to the mosquitoes, thus challenging the notion that the *Plasmodium* infection is pathogenic for the mosquitoes. In an article by Bhowmick IP *et al.*, published in JMIR Form Res, the authors have developed a new surveillance app FeverTracker which would be an important tool for malaria as well as integrated disease surveillance. In an article published in Am J Trop Med Hyg, by Gupta SK *et al.*, the authors have analyzed the epidemiological data of the Indo-Bhutan border, and provided the implications for malaria control in this region. In the article by Jongdeepaisal M *et al.*, published in Malar J the authors have looked into the feasibility of using chemoprophylaxis as a measure of malaria control in the forest-goers’ population, which is quite relevant to India as in a study published by Ranjha R and Sharma S, in BMJ Global Health in 2021, it was shown that forest malaria caused ~32% of total malaria-cases and ~42% of malaria-related deaths in India.

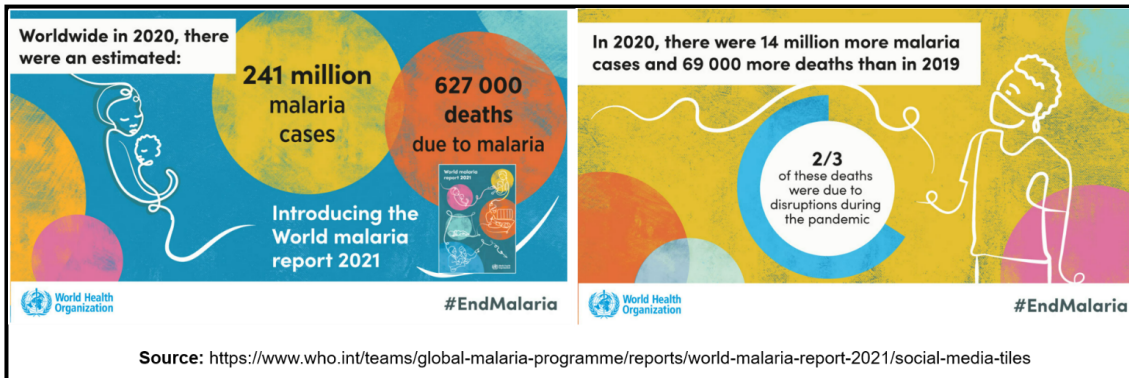
Under the “Resource for Malaria Researchers”, we have highlighted the Infectious Diseases Data Observatory (IDDO), an online data repository for the infectious diseases research community and a unique platform which facilitates data sharing and analysis for the betterment of disease management and treatment outcomes. We have also shared the experience of the researchers being trained in the ICMR-NIMR-IDDO joint collaboration for capacity building.

Dr Shashank Tripathi, Assistant Professor and DBT-Wellcome Trust India-Alliance Intermediate Fellow at Indian Institute of Science would be delivering the next lecture of the “Lecture Series on Infectious Diseases” on 27th December 2021. We invite all our readers to attend this lecture about how data analysis has been used to design interventions for COVID-19. The lecture link can be found in the ‘Upcoming Event’ section.

We hope you will find the contents of this issue enjoyable and mind-stimulating. For any feedback or suggestions towards the content of the newsletter, please write to us at meranewsletter@gmail.com.

With best wishes
MERA-India team

Malaria News



The World Health Organization released the World Malaria Report 2021, with an assessment of global malaria control and elimination trends for the year 2020. According to the report, 241 million malaria cases and 0.63 million malaria-deaths were estimated worldwide in 2020. About two-thirds of the additional malaria-deaths in 2020 as compared to 2019 were caused because of the disruptions in malaria diagnosis, treatment and prevention due to COVID-19. Children under the age of 5 years accounted for 77% of the total malaria-deaths. The WHO African region continued to bear the highest malaria burden and accounted for 95% and 96% of the global malaria cases and malaria-deaths.

With approximately 4.2 million estimated malaria cases and 7341 estimated malaria-deaths, India accounted for a total of 83% estimated malaria cases and 82% estimated malaria-deaths in the WHO South-East Asia Region. While India continued to report a decline in the number of malaria-cases and deaths, the rate of reduction decreased as compared to the pre-pandemic years. *Plasmodium falciparum* was the dominant parasite species in India. In the year 2020, India could achieve the delivery of only 50% of the targeted number of ITN distribution. While in India the artesunate plus sulfadoxine-pyrimethamine is used as the first line of treatment against *P. falciparum*, decreased sensitivity to the partner drugs have been reported in a study from Chhattisgarh.

The full report can be accessed here: <https://www.who.int/teams/global-malaria-programme/reports/world-malaria-report-2021>

NIMR Activities: ICMR-NIMR Annual Day Celebrations



ICMR-NIMR celebrated its Annual Day in November. On this occasion, the Director NIMR, Dr Amit Sharma presented the progress and achievements of the institute and MERA-India in the last one year, and talked about the new initiatives and future plans of NIMR and MERA-India. The launch of the second call of proposals for MERA-India and the first call of proposals for ICMR Malaria Mission (IMM) were also announced by Dr Amit Sharma. The details of these calls would be posted soon on the MERA-India and NIMR websites.

Keynote Lectures were delivered by Professor Partha Majumder, President, Indian Academy of Sciences, Bengaluru, on the topic "Genes as a guide to human history and culture" in which he talked about the application of genomics to map the genetic diversity and study the human evolution; and Dr M M Pradhan, Former Joint Director of State NVBDCP, Odisha on the topic "Intrinsic Challenges in Elimination of Malaria: Lessons from Odisha".

The DG-ICMR, Professor (Dr) Balaram Bhargava joined the celebrations virtually. He appreciated the work done at NIMR and the field units towards taking the mandate forward for malaria elimination in India, and the work done at NIMR COVID-19 diagnostic laboratory. He suggested increased focus on Malaria in Northeastern States and to direct more efforts towards training & research in the area of vector biology.

The NIMRians Mr Sahab Singh, Mr Puran Singh Meena and Mr Banarasi Das, who completed 25 years of ICMR service, were felicitated by the Director NIMR.

A cultural programme was also organized in which the students and staff of NIMR participated in events such as games, poetry, rangoli design, dance and singing.

MERA-India Workshop on Community Behavior



Community Behaviour Workshop
05th- 06th October 2021
Venue: ICMR-NIMR, Delhi



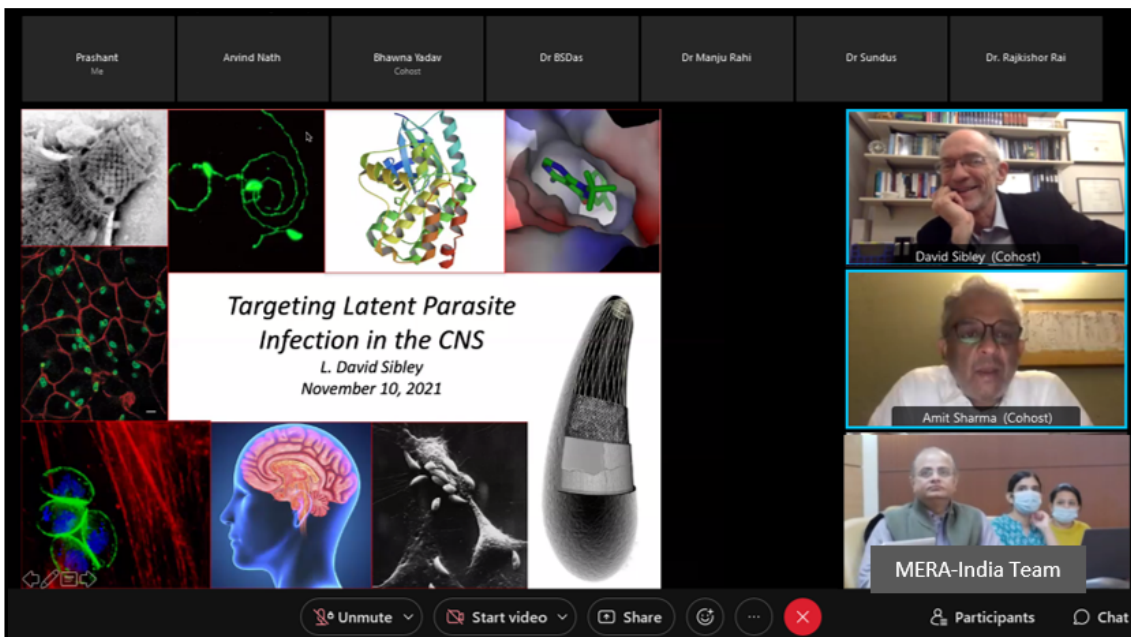
MERA India
Malaria Elimination Research Alliance India
One Platform, One Goal

Operational research can improve the yields and results of malaria programs. Community-based studies are essential to understand their behavior, barriers, risk factors, and health care-seeking behavior. With this objective, MERA-India has funded multi-centric studies to carry out pan-India research activities that will help assess the key behaviors of communities regarding malaria prevention and control, help identify the barriers and facilitators associated with these behaviors, evaluate the existing Behavioral Change Communication Interventions (BCCI) for malaria prevention and control, formulate need based advocacy plan and recommend appropriate actions for all stakeholders towards strengthening of BCCI, and formulate and implement new intervention tools and assess their impact.

In October 2021, MERA-India organized a two-days' workshop at ICMR-NIMR, Delhi for the Principal Investigators (PIs)/co-investigators, and the associated project staff in the MERA-India funded Community Behavior project theme. This two-day workshop was organized under the guidance and mentoring by Professor Rajib Dasgupta (Chairperson, Centre of Social Medicine and Community Health, JNU, New Delhi), Dr Bontha V. Babu (Scientist-G and Head of Socio-behavioral & health systems research, ICMR), Professor Madhumita Dobe (Director and Head, Department of Health Promotion & Education, All India Institute of Hygiene & Public Health, Kolkata) and Dr Manju Rahi (Scientist-F/ Deputy-Director General (SG), ICMR). There were lectures about human behavior in human health and disease control; mixed methods; approaches and methods of BCC interventions; translating study findings to interventions and intervention tools. The attending PIs and co-Is presented their study plans and the methodology to be used. The mentors guided the participants regarding the research plan and the proposed methodology, and the proposals were restructured based on the discussion with the mentors/ experts.



Distinguished Lecture by Professor David Sibley



The fourth lecture of the “Distinguished Lecture Series” was delivered in November by Professor David Sibley, who is an Alan A. and Edith L. Wolff Distinguished Professor of Molecular Microbiology at the Washington University School of Medicine in St. Louis, USA and a world-renowned parasitologist. Dr Amit Sharma, the Director NIMR, thanked Professor Sibley for accepting the invitation to deliver the lecture. Dr Sachin Sharma, Chief Consultant, MERA-India introduced the speaker to the attendees.

Professor Sibley’s lecture was entitled “Targeting Latent Parasite Infection in the CNS”. He introduced the transmission cycle of the parasite *Toxoplasma gondii*, and 25% of the world’s population is chronically infected with this parasite. He described the acute infection causing parasite forms tachyzoite and the dormant form, bradyzoite, existing as cysts in muscles and CNS and responsible for the reactivation of infection especially in the case of

immunocompromised hosts leading to increased risk of congenital disease, ocular diseases as well as schizophrenia and bipolar disorders. He next described the approaches to derive new therapeutics targeting the chronic infections by either killing the slow-replicating bradyzoites or preventing their reactivation. One of the enzymes described in this lecture as a target against toxoplasmosis was Calcium Dependent Ser/Thr Protein Kinase (CDPK), which is essential for microneme secretion, motility and invasion/ egress in *T. gondii*. It has a natural Gly residue gatekeeper and is sensitive to bulky ATP analogs, and thus can be used to target acute as well as chronic *T. gondii* infections. The other target described was PheRS, which is an essential tRNA synthetase in both the active as well as the semi-dormant forms, as well as a conserved target across apicomplexans. He also described the studies based on *Plasmodium* PheRS, which led to the identification of target residues and the compounds targeting *T. gondii* PheRS.

After the lecture, Professor Sibley answered the questions from the attendees. The session concluded with Dr Sachin Sharma thanking the speaker and the attendees.

The recording of this lecture is available on the MERA-India website (<https://www.meraindia.org.in/lecture-series>).

Lecture 06 of Lecture Series on Infectious Diseases

The screenshot displays a Zoom meeting interface. At the top, participant names are listed: prashant, Dr Manju Rathi (Cohost), Aditi, amit kumar, and AMRENDRA CHAUDHARY. The main content is a presentation slide titled "Status of endemicity of visceral leishmaniasis (VL) worldwide, 2020". The slide includes a world map with color-coded regions representing endemicity levels. A legend on the right indicates the number of cases reported in 2020, with categories: 0-100, 100-500, 500-1000, and >1000. The map highlights South America (16%), Africa (57%), and Asia (18%). The Zoom interface also shows a video thumbnail for Prof Shyam Sundar and a "MERA-India Team" logo.

Professor Shyam Sundar, Distinguished Professor at Institute of Medical sciences, BHU, was the speaker at the November lecture of the NIMR & MERA-India virtual "Lecture Series on Infectious Diseases". Prof Shyam Sundar is currently the Programme Director of the Kala-Azar Medical Research Centre and has made seminal contributions in the field of visceral leishmaniasis (VL) over his career. Dr Sachin Sharma, Chief Consultant, MERA-India welcomed everyone and introduced Professor Sundar.

In the lecture, Professor Sundar talked about the advances in the last two decades related

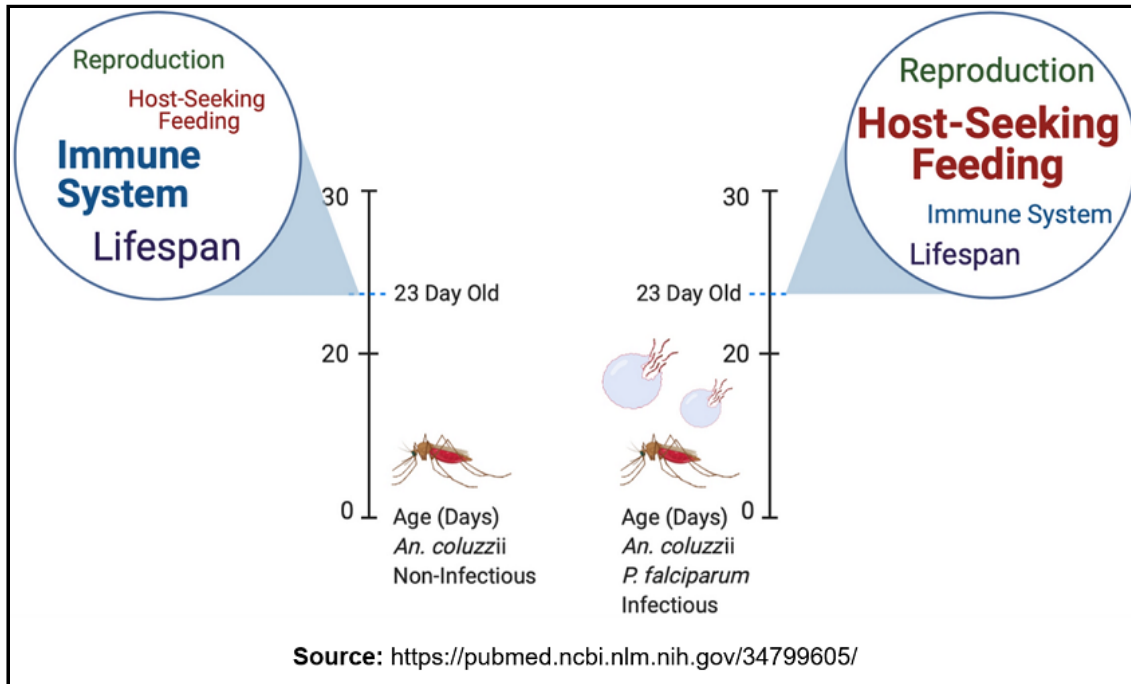
to the diagnostics and treatment of VL. He talked about the challenges with the conventional diagnosis of VL using pathogen demonstration in aspirates collected from the spleen, marrow or lymph nodes of the patients, as well as the sero-diagnosis using ELISA or PCR. He next described the advances in the diagnosis for VL using the highly sensitive and specific rk39 rapid strip-tests, which can diagnose VL within 10 minutes. He next shed light on the treatment of VL using Miltefosine (the first oral-drug), single dose liposomal AmphotericinB, and the multi-drug treatment with short duration of treatment. He also talked about the diagnosis and treatment in HIV-VL co-infections and post kala-azar dermal leishmaniasis.

The lecture was followed by answers to the questions and ended with a note of thanks from Dr Sachin Sharma to the speaker and the attendees.

The recording of this lecture is available on the MERA-India website (<https://www.meraindia.org.in/lecture-series>).

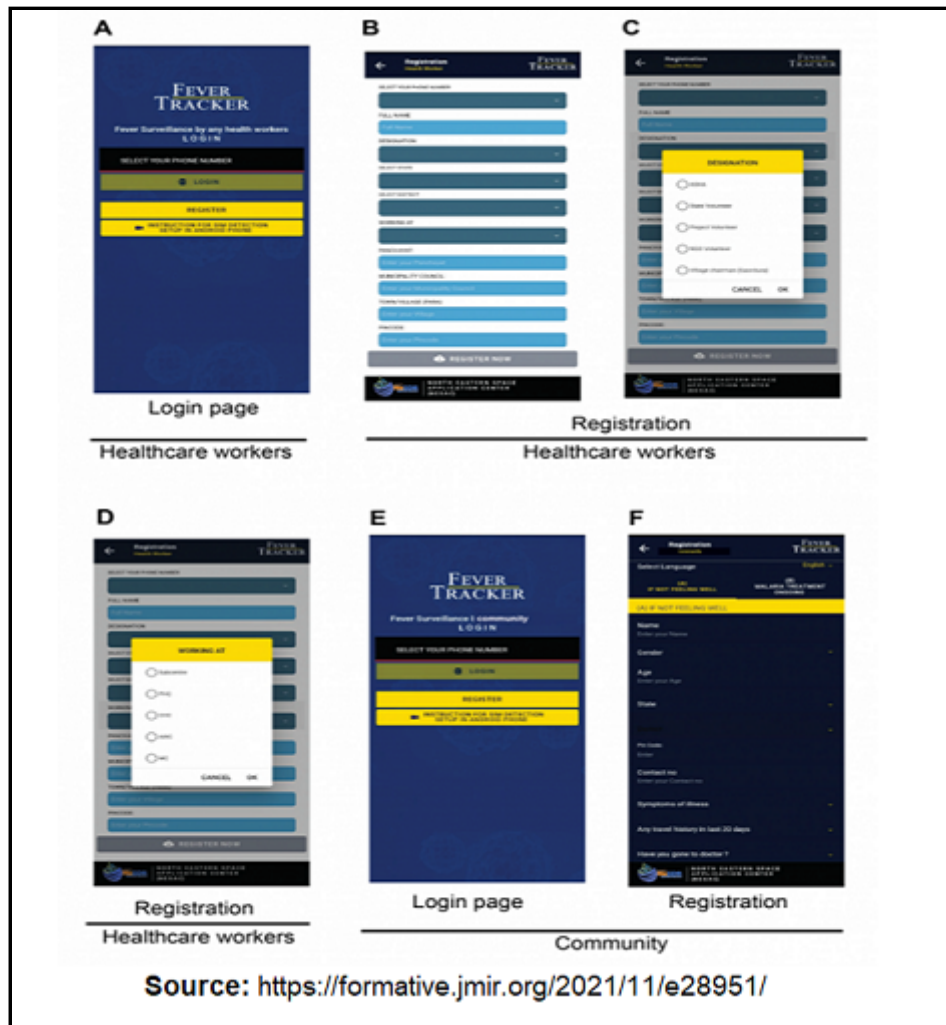
Research in Spotlight

Carr A L. *et al.*, *Sci Rep*, 2021: Transcriptome profiles of *Anopheles gambiae* harboring natural low-level *Plasmodium* infection reveal adaptive advantages for the mosquito



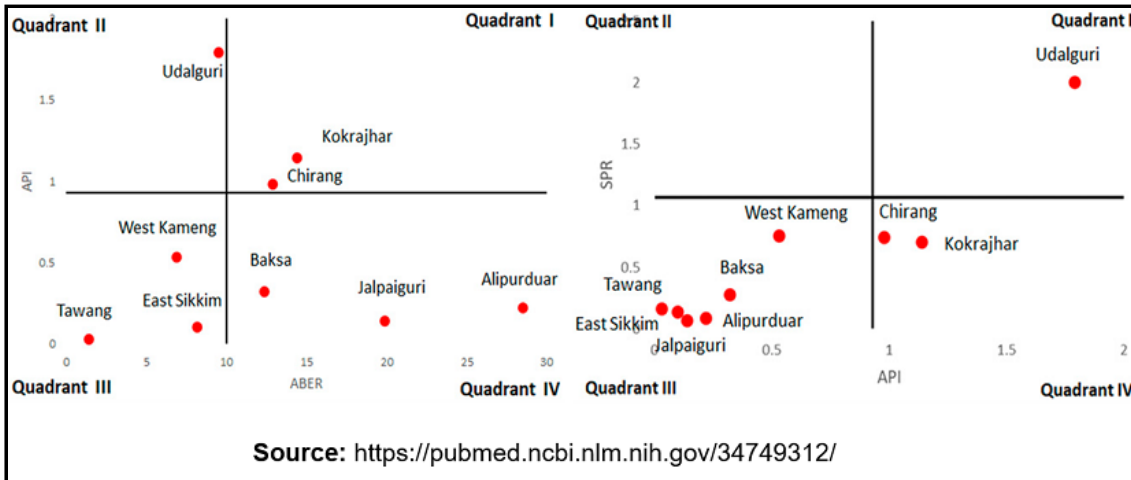
In the above [study](#), the authors worked on understanding how the *P. falciparum* infection affects the mosquitoes. For this, they compared the RNA-seq based transcriptome profiles between the infected and the uninfected mosquitoes. The analysis showed that the infected mosquitoes displayed an upregulation of genes associated with enhanced sense of smell and were thus able to find the hosts more easily as compared to the uninfected hosts. The infected mosquitoes were fitter than the uninfected controls and also exhibited a physiology with anti-aging and reproductive advantages, thus providing evidence against the idea of malaria infection being pathogenic for mosquitoes.

Bhowmick IP. et al., JMIR Form Res., 2021: Validation of a Mobile Health Technology Platform (FeverTracker) for Malaria Surveillance in India: Development and Usability Study



Surveillance and real-time data reporting and analysis is critical for the management, control and elimination of any disease. In this [study](#), the authors have developed a mobile application, FeverTracker, to strengthen malaria surveillance by assisting self-reporting by the patients as well as digital surveillance and real-time reporting of malaria cases by the community health workers. The app was validated by the authors in 19 malaria-endemic villages of Tripura state in India, and the use of the app led to a reduction in the collection and reporting of the data by about one month. The app templates are modifiable for any disease, and can thus be used for an integrated disease surveillance.

Gupta SK. et al., Am J Trop Med Hyg, 2021: Malaria Epidemiology Along the Indian Districts Bordering Bhutan and Implications for Malaria Elimination in the Region



India and Bhutan are aiming to eliminate malaria by 2030 and 2023 respectively. As such, malaria status in the Indo-Bhutan border is a common concern for both these countries. Authors of this [study](#) analyzed the epidemiological data of the border region from 2015 to 2019 in order to provide a blueprint to focus the malaria control effects. Statistical analysis and inference of malariometric indices data such as annual blood smears examination rate (ABER), annual falciparum incidence (AFI), annual parasite incidence (API), percentage of *P. falciparum*, slide falciparum rate (SFR), and slide positivity rate (SPR) of 10 Indian districts that border Bhutan revealed the downward trend in API and % of *P. falciparum* and necessity of enhancement in low ABER districts. The heterogeneity in malaria epidemiology is due to the prevalence of malaria vectors *Anopheles minimus* and *An. baimaii*, cross border population movement, low socioeconomic conditions, and favourable climatic conditions for vector growth. Finally, based on this analysis, the Indian districts Udalguri, Kokrajhar, Chirang and West Kameng might be a cause of concern for cross-border malaria hence, both countries can consider joint measures to address the issues.

Jongdeepaisal M. *et al.*, *Malar J.*, 2021: Acceptability and feasibility of malaria prophylaxis for forest goers: findings from a qualitative study in Cambodia



Authors of the above [study](#) suggest that chemoprophylaxis with artemether–lumefantrine as an appropriate strategy against malaria among forest-goers' population. In northern Cambodia, malaria still remains a serious threat even after substantial reduction in incidences over past two decades. Qualitative study including in-depth interviews and observation showed the acceptability of prophylaxis due to community's awareness on the effectiveness of the measure as well as confidence in the provider. Authors suggested chemoprophylaxis as a better preventive measure in comparison to IPT for forest goers as it has more frequent dosing and is flexible for modification as per the necessity of forest goers. Besides, the study also discussed the challenges, acceptance by local population and importance of the local health workers' role in successful implementation of chemoprophylaxis as a preventive strategy against malaria for forest goers.

Malaria Scientists to Watch

An interview with Professor Pankaja Raghav



[Professor Pankaja Raghav](#)

**Head, Department of Community Medicine & Family Medicine,
AIIMS, Jodhpur**

1. Please share with our readers your journey from being a young science student to your current position as Professor and Head, Community and Family Medicine at AIIMS Jodhpur.

I have been interested in science since young age and developed interest in Medical profession as I grew. During my time in MBBS, I had lot of questions but did not know how to address them. Later in the final year, I found Public Health as an interesting and challenging specialty. As a doctor and during my initial days I had been very keen to help the community.

By the time I finished MBBS, I knew I wanted to make my career in the field of Community Medicine. I found that this subject would allow me to reach a vast number of people with its impact at ground level. I really enjoyed my time as a Post-graduate trainee in Community Medicine. It was exciting to see a project go from idea to product. The concept of taking the initial protocol to field work to finally achieving what we envisioned was amazing.

As the Professor and Head of Community and Family Medicine at AIIMS Jodhpur, I started to develop more interest in Occupational and Environmental diseases and It was highly rewarding to see our work being reflected in benefits of many workers and labourers.

2. What motivated you to work in the field of malaria research?

Malaria as a disease is easily preventable and easily treatable and seeing millions of children dying of malaria is heart wrenching. By working in malaria, I could help the community and by preventing it, we could save a lot of lives. One such work is to assess how community behaviour and its determinants can impact Malaria prevention and control.

3. According to you, what is the biggest challenge for malaria elimination in India?

Despite modest gains, there are many challenges for malaria elimination in India. Under-

reporting of confirmed cases makes it challenging to estimate the true burden of the disease. Varied insecticide resistance in vectors and antimalarial drug resistance among Indian population makes the goal of malaria elimination all the more difficult. Additionally, the open borders of India could lead to a possible introduction of the resistant parasites from neighboring Southeast Asian countries.

4. Apart from science and research, which other activities interest you?

Activities like gardening, reading and cooking, particularly interest me, and I find them very rewarding and calming. Also, morning meditation and yoga help me keep myself focused and charged throughout the day.

5. What is one advice that you would like to give to young PhD students and early-stage researchers?

Expose yourself to new and different ways of learning by taking guidance from the mentor and by exchanging ideas with peers and colleagues. Acquire as many skills as you can; they will help you tackle an array of problems in the future. Do good work and work hard! There is no substitute for hard work.

An interview with Mr Sanjeev Kumar Gupta



[Mr Sanjeev Kumar Gupta](#)
Technical Officer-C,
ICMR-NIMR, Delhi

1. Tell us about your journey in the field of malaria research?

I started as a Programmer Assistant at the ICMR-National Institute of Malaria Research (previously known as Malaria Research Center) in February 1998. Through training in ArcGIS, ArcView, and its various extensions such as Spatial Analyst, Hydrological Modeling, 3D Analyst, and Raster to Vector (R2V), I learnt GIS. During 2000-2001, I developed a user-friendly software using SML interface for new GIS users to access the geographic database and to perform complex operations. Presently, I am attached with the Vector Biology Group of NIMR as Technical Officer-C.

2. What motivated you to work in the field of malaria research?

For malaria control and elimination, effective, robust and responsive information systems are required. Surveillance in elimination settings must be a rapid data collection, analysis, output, and response intervention to detect malaria cases and prevent further transmission. Surveillance can be successful only if accurate data is provided on time, allowing for early detection and prompt reaction to disease outbreaks, which is a major challenge in India.

The next challenge in disease surveillance is the level of case reporting. In the elimination scenario where every case matters, case reporting must shift from being done on periodic basis and aggregated at the district level to real-time reporting of the individual geo-located case. GIS is a useful tool for keeping track of public health in different areas and can be utilized in the field of malaria control to describe malaria risk zones. However, one of the most significant obstacles to using GIS in disease monitoring is the lack of digital maps and geo-tagged data. Sub-centers (SCs), public health centres (PHCs), and community health centres (CHCs) make up India's three-tiered health-care system, which provides preventative and curative health care in rural and urban regions. Though, digitized maps of SCs, PHCs, and CHCs are unavailable. Another issue is the availability of spatio-temporal data, and even when data is available; it is not geo-tagged. Geo-tagged data may be used to pinpoint the location of malaria transmission and other diseases, allowing resources to be utilized more efficiently. Resources are limited, and effective monitoring systems that integrate real-time data collection using mobile technology with GIS may be helpful to overcome this problem.

3. You have been managing real-time data collection and GIS in various projects being executed at ICMR-NIMR. Please tell us more about this and how this data will help India's malaria elimination programme?

In the various studies undertaken at ICMR-NIMR, remote sensing and GIS technologies are being used to study vector distribution, risk mapping and control planning for malaria and other vector borne diseases such as dengue and kala-azar. We have also prepared risk maps for dengue-affected areas of Delhi focusing on severely affected areas so that immediate intervention could be strategized. One of the most important studies was the development of GIS maps and a 500-meter buffer zone surrounding 20 high-dengue-risk localities in Delhi's west zone, which helped in directing interventions in the affected areas. Throughout the survey period, no dengue cases were reported in the localities and buffer zone. I have contributed to many other studies including studies on changes in the distribution of vector mosquitoes due to ecological succession in North Eastern States of India using GIS and remote sensing data; studies on the relation of dengue vector mosquito to various socio-economic groups in Delhi; spatial statistical analysis for control of malaria situation in Jharkhand; preparation of risk maps for about 30 major dams on river Narmada in Madhya Pradesh to prevent mosquito-borne diseases.

Until recently, all the data was collected on paper; however, the turning point in my career occurred when I was introduced to the use of mobile technology for capturing near real-time field data. I was trained in the use of Open Data Kit (ODK), a free and open-source platform, and successfully demonstrated its use in the Narmada project. The success of mobile technology in the real world boosted my confidence and inspired me to develop a mobile app. I upgraded my skills in java and android for the development of mobile applications and created a mobile app 'Pictorial Identification Key for Indian *Anophelines*'.

4. What is the best career-related advice you have ever received?

I consider myself fortunate that all of my superiors have always provided me with great professional advice. Our current Director, Dr Amit Sharma, has discovered a latent aptitude in me for writing. His insightful thoughts and discussions have encouraged me to be more imaginative and think differently. My approach to data analysis has improved as a result of his advice.

5. How do you see your research and career developing in the next five years from now?

India has set a goal of interrupting indigenous malaria transmission across the country by 2027, and preventing the re-establishment of local malaria transmission, and maintaining nationwide malaria-free status by 2030. I wish to further upgrade my skills with the latest technologies and disseminate my knowledge to achieve the elimination target through research studies. I am privileged to be a part of several research studies being conducted at ICMR-NIMR in the area of low-density infection, migratory malaria, bionomics of malaria vectors, dashboard development, and studies related to the impact of climate change and air pollution on malaria in India. I hope to put my expertise to the best use and contribute to these research studies with the analytical and innovative skills developed over the last several years.

Resource for Malaria Researchers

The Infectious Diseases Data Observatory (IDDO)



Launched in 2016, The Infectious Diseases Data Observatory (IDDO) is a scientifically independent, multi-disciplinary coalition of the global infectious disease community. It provides the methods, governance and infrastructure to translate data into evidence that improves outcomes for patients worldwide. IDDO builds on and incorporates the pioneering work of the WorldWide Antimalarial Resistance Network (WWARN), a collaborative data-sharing framework begun in 2009. At present, IDDO is focusing on nine infectious diseases including COVID-19, malaria and visceral leishmaniasis with many more in development. The coordinating office of IDDO is based in the Centre for Tropical Medicine and Global Health at the University of Oxford.

In the year 2021, ICMR-NIMR and IDDO initiated a joint venture with an aim of capacity building and training of young researchers. Three infectious diseases are the focus of this collaboration: malaria (the partner institution: ICMR-NIMR, Delhi), visceral leishmaniasis (the partner institution: ICMR-RMRIMS, Patna) and lymphatic filariasis (the partner institution: ICMR-VCRC, Puducherry).

We spoke to a few researchers being trained in the ICMR-NIMR & IDDO joint collaboration about their experience and the skills acquired during the training.



“ I joined the ICMR-NIMR-IDDO project to utilize my skills and expertise of clinical trials in exploring various infectious disease. The training activities in all the modules were conducted in depth. All the resources like databases, materials, documents were provided effectively and in a timely manner. These training schedules have widened my capabilities some of them being preparation of protocol, designing of case report forms for a clinical trial, scoping and searching various databases, creating appropriate search strategies that can help in future trial designing and planning.

– Dr Beauty Behera
Clinical Research Manager, ICMR-NIMR-IDDO



“ My motivation behind joining this project was to get trained in applying the huge amount of available data to identify knowledge gaps that will inform future research priorities in malaria. This training is a great learning experience, and it introduced me to different skills related to data in malaria research, clinical trials, and public health.

– Dr Reena Verma
Consultant, ICMR-NIMR-IDDO



“ Research is a vast field, and it is ever-growing. Joining the ICMR-NIMR-IDDO training suited my need to grow my skills and also provided an opportunity to work with the leading international researchers in the field of Malaria. It has been an amazing experience and the skills that I have acquired during this training will go a long way to help me grow professionally even more, and expand my knowledge horizon.

– Dr Sundus Ahmad
Consultant, ICMR-NIMR-IDDO



“ *Being from the molecular biology background, joining the ICMR-NIMR-IDDO joint project seemed to me as a wonderful opportunity to widen my horizon and explore new avenues. The training was quite thorough and detailed, and I learned the basics of data collection, storage and management which are the pillars for every field of research and will help me to systematically design and execute my research plans.*

– Dr Minu Nain
Consultant, ICMR-NIMR-IDDO



“ *My main motivation to join the IDDO-NIMR-ICMR training was to enhance the knowledge and open a new door of research on Infectious diseases like Malaria, visceral leishmaniasis, and lymphatic filariasis. The training sessions were comprehensive and included detailed sessions on Systematic Review Meta-Analysis, REDCap and Covidence software which would be very useful for my future research plans.*

– Dr Azhar Uddin
Consultant, ICMR-NIMR-IDDO



“ *I have recently joined the ICMR-NIMR-IDDO joint project with an aim to learn more about the emerging issues in malaria research, and the approaches that we could adopt to address these issues.*

– Dr Pushpender Kumar
Consultant, ICMR-NIMR-IDDO



“ *Being a PhD in Bioinformatics and with six months of working experience in construction, maintenance, analysis, etc. of celiac disease biorepository at AIIMS Delhi, I wanted to further explore new horizons in public and clinical health, and this was my motivation behind joining the ICMR-NIMR-IDDO joint project. During the training, I got an opportunity to learn from the pioneers of the respective fields. Currently, I am learning Geospatial modeling from the IDDO team and I am also engaged with the IDDO informatics team to learn about WWARN Data Manager and WWARN surveyors.*

– Mr Apoorv Gupta
Biostatistician/ Data analyst, ICMR-NIMR-IDDO

Upcoming Event

Lecture Series on Infectious Diseases: Lecture 07 by Dr Shashank Tripathi

NIMR & MERA-India present
Lecture Series on Infectious Diseases
“*Translating COVID-19
Big Data into Clinical Interventions*”
Lecture: 07
Lecture link: <https://bit.ly/3Evpygx>
Monday, 27th December, 2021 | 15:00 IST

Dr Shashank Tripathi,
Centre for Infectious Disease Research,
IISc, India

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Dr Shashank Tripathi, Assistant Professor, and DBT-Wellcome Trust India-Alliance Intermediate Fellow, at the Centre for Infectious Disease Research, Indian Institute of Science, India would be our next speaker in the “Lecture Series on Infectious Diseases”. He will be delivering the lecture entitled “Translating COVID-19 Big Data into Clinical Interventions” on 27th December 2021.

To join this lecture, please click here: <https://bit.ly/3Evpygx>

Recent Publication

Indian J Med Res 154, July 2021, pp 19-23
DOI: 10.4103/ijmr.IJMR_4370_20

Perspective

Connecting the dots to strengthen malaria elimination strategies in India: A Malaria Elimination Research Alliance - India initiative

In this publication, the authors provide a brief account of the MERA-India aims, organizational and scientific vision as well as the progress in the first year.

Rahi, M., Sharma, S., Das, P., Anvikar, A., Pandey, M., Sharma, A., 2021. Connecting the dots to strengthen malaria elimination strategies in India: A Malaria Elimination Research Alliance - India initiative. Indian J. Med. Res. 154, 19–23. https://doi.org/10.4103/ijmr.IJMR_4370_20

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