India has achieved a remarkable decline in malaria cases. According to the World Health Organization (WHO), the country has nearly halved the number of reported malaria cases between 2000 and 2015, from 2 million to 1.17 million. Despite this progress, India remains the most malarious country in the Asia Pacific region, with more than one billion people at risk of infection. The country’s efforts to control and eliminate malaria must be scaled up urgently to achieve the national elimination goal by 2030.

Malaria case data in India are unreliable, in part because of difficulty in capturing private sector reporting. Under-reporting of malaria cases makes it challenging to accurately estimate the true burden, plan for financing to adequately address the disease, and deploy appropriate control and elimination strategies. Given the decentralized nature of health and public services in India, malaria strategies and interventions will rely on state ownership, accountability, and action to be effective.

India poses a serious importation risk to neighboring countries—including Bangladesh, Bhutan, and Nepal—that are poised to eliminate malaria in the next 5–10 years. Cross-border dialogue can forge concrete collaboration and action to share data and coordinate control and elimination strategies. Greater dialogue between low-endemic neighboring countries and India’s districts and states along the borders could mitigate importation risk and support progressive elimination in India.

Synergies between malaria elimination and polio elimination in India exist. The polio elimination program has extensive experience working across multiple sectors, developing sensitive and timely surveillance systems and working in high risk and hard-to-reach areas of India. The successful polio elimination campaign may be leveraged to provide additional technical, operational, and financial resources to malaria elimination in India.

Sri Lanka’s successful malaria elimination and prevention of reintroduction (POR) has demonstrated that existing interventions—including intensive case investigation, surveillance, and response—are powerful strategies that can achieve elimination.

Global Elimination Update & Objectives for MEG XI

Richard Feachem

- In 2016, two countries—Sri Lanka and Kyrgyzstan—were certified by the WHO as malaria-free. Also in 2016, the WHO EURO region became the first region to be declared malaria-free. The UCSF Global Health Group’s Malaria Elimination Initiative projects that nearly 30 countries will eliminate malaria by 2020, including five countries in Asia Pacific: Bhutan, China, Malaysia, Sri Lanka (successful in 2016), and South Korea.

- Global commitment to malaria elimination was recently reaffirmed with the Global Fund replenishment, the launch of the WHO Strategic Advisory Group on Malaria Eradication, the revitalization of the Roll Back Malaria initiative, the formation of the End Malaria Council, as well as public remarks from key political leaders supporting the end of malaria—including US President Barack Obama and UK Chancellor George Osborne.

- The success of MEG, formed in 2007, has laid the foundation for MEG 2.0, the Malaria Eradication Group, which will shift focus in 2017 to issues of malaria eradication.
MEG XI provides an unprecedented opportunity to bring together international malaria stakeholders and experts to discuss India’s recent commitment to a 2030 elimination goal, review progress towards the National Framework for Malaria Elimination in India 2016–2030 (NFME), and discuss challenges and opportunities for malaria elimination in South Asia.

Session 1: India National Elimination: Goals, Priorities, Progress, and Challenges
Chair: Patrick Kachur
Presenter: A.C. Dhariwal

- The malaria situation in India is incredibly complex: there are several primary vectors, varied climates, geographies, and ecologies, and diverse population groups that are difficult to reach with standard interventions.

- In February 2016, the Government of India and the Ministry of Health and Family Welfare committed to malaria elimination by 2030 with the launch of the NFME. This framework employs a stratified approach to elimination and categorizes states and union territories (UT) according to annual parasitic incidence (API).

- Goals of the NFME include elimination of malaria from the 15 low transmission states and UTs (Category One) by 2020, elimination of malaria from the 11 moderate transmission states and UTs (Category Two) by 2022, and interruption of indigenous malaria throughout the entire country—including the 10 high transmission states and UTs (Category Three)—by 2027.

- Health in India is largely managed by state-level government. The National Vector Borne Disease Control Program (NVBDCP) stressed the importance of state ownership in the creation and execution of state-level malaria action plans.

- The “way forward” for national malaria elimination in India requires improvements to the malaria surveillance system, including data validation, clearly defined roles and responsibilities among multiple stakeholders, and improved cross-border collaboration.

- Inspired by Sri Lanka’s success in eliminating malaria, the NVBDCP proposed: “If Sri Lanka can do it, why can’t we?”

Highlights of Session 1 Discussion
- The potential for the spread of antimalarial drug resistance into India is a serious concern. Following recent therapeutic efficacy trials in the highly-endemic northeast region, the NVBDCP and National Institute for Malaria Research (NIMR) proposed a change to the national drug policy to artemether/lumefantrine (AL) as the first-line drug for *Plasmodium falciparum* nationwide. Issues related to compliance and full-course treatment should be planned for accordingly, especially in hard-to-reach areas of the country.

- *Plasmodium falciparum* infections in India grew in comparison to *P. vivax* over the last two years, which is uncommon in elimination settings. Outbreaks in the highly endemic northeast region are speculated to be the cause of this increase.

Session 2: Preliminary Findings of the India National Elimination Feasibility Assessment and Investment Case
Chair: Christina Rundi

Situational Assessment of India’s Preparation for Malaria Elimination: Preliminary Findings, Presented by Avdesh Kumar

- There is an overall human resource deficit at the state and UT level for malaria elimination. Few states have fully operational entomological units and fully equipped primary health centers.

- One third of states and UTs have established a malaria elimination committee and taskforce and only a handful of states have drafted a roadmap for malaria elimination. Improving state ownership in malaria elimination planning and execution is critical.

- Nearly 80 percent of states and UTs are carrying out activities to enhance intersectoral coordination among different ministries and host regular capacity building trainings for staff. Most states and UTs have a management information system for malaria.

Malaria Elimination Planning, India: Preliminary Findings, Presented by Kartik Sharma

- The quality of malaria case data is a serious issue. The public sector reported 1.17 million malaria cases in 2015, but this does not capture private sector data. The total burden of malaria may be between 10 and 26 million cases.

- Most care-seeking begins with the private sector, which is not required to report cases.

- There is poor knowledge of malaria diagnosis and treatment guidelines among informal private sector practitioners (RMPs). In a survey of 170 RMPs, rapid diagnostic tests (RDTs) were mentioned as a malaria diagnostic tool by 71 percent of respondents but only seven percent correctly read RDT results.

- Low rates of confirmed diagnosis but a high volume of sales of antimalarial drugs in the private sector indicates widespread presumptive treatment, the continued use of monotherapy, and gaps in malaria treatment knowledge. Among the RMPs surveyed, chloroquine (CQ) and Quinine (88 percent), antibiotics (78 percent), and CQ and arteether injections (70 percent) were mentioned more often as treatment options for malaria than were artemisinin-based combination therapy (ACTs) (11 percent).
• Decision-making is further hindered by the quality and timeliness of surveillance data. In some cases, it can take upwards of 45 and 60 days for case data from the village level to reach the state and national programs, respectively.

• Vector control tools are under-utilized. According to preliminary results of the study, actual indoor residual spraying (IRS) coverage appears lower than what is reported by the program. Furthermore, data from a NIMR survey revealed that long-lasting insecticidal nets (LLIN) coverage in the four states assessed ranged from 10 percent to 20 percent, indicating inadequate coverage.

Highlights of Session 2 Discussion
• The formal and informal private sectors are not required to report malaria cases and deaths. Many people seek care from informal practitioners, many of whom are both unregulated and unmotivated to comply with national health guidelines.

• Independent monitoring of case data is necessary. As a start, the NVBDCP is currently partnering with NIMR to conduct an epidemiological study in certain areas of the country to better determine case estimates.

• In assessing IRS coverage, it is important to be sure that the denominator (i.e. targeted households v. all households) is consistent.

Session 3: State-level Elimination Efforts in Tamil Nadu: Goals, Priorities, Progress, and Challenges
Chair: Neeru Singh
Presenter: K. Kolandaswamy
• Tamil Nadu aims to eliminate by 2030.

• Malaria cases in Tamil Nadu have consistently declined since 2011. In 2016, there were 3,651 total reported cases. There have been zero malaria-attributed deaths since 2010.

• All 32 districts in the state have reported an API <1/1,000 for two years and 23 districts are malaria-free and considered to be in the POR phase.

• Much of this success is credited to political commitment, adequately staffed government health care facilities, a skilled vector borne disease control program including lab technicians and entomologists, and the growth of the tertiary health sector— including several local medical colleges.

• Challenges include the level of IRS refusal (approximately 10 percent), population movement from endemic areas into non-endemic areas, and urban and agricultural development projects.

Highlights of Session 3 Discussion
• Malaria is a notifiable disease in Tamil Nadu, including by the private sector. A blood smear is required for all fever cases for malaria diagnosis.

• To better track imported cases, the vector borne disease control program is training health practitioners to obtain travel history from all fever patients.

• Tamil Nadu is able to support two IRS campaigns per year by earmarking funds and good preparation, including procurement of insecticides and the training of malaria workers well in advance.

• Additional vector control interventions should be used in combination with IRS in Tamil Nadu.

• Sri Lanka and Tamil Nadu plan to improve collaboration, particularly sharing imported case data.

• Given the relatively low case numbers, test, treat, and track of all malaria cases should be considered a next step for the Tamil Nadu malaria control program.

Session 4: Panel Discussion—Role of the Private Sector in Supporting India’s Malaria Elimination Priorities
Chair: Deepika Kandula
Panelists: Jayeeta Chowdhury, Altaf Lal
• Engaging with the private sector is often integral to successful public health programs, and government should be involved from the beginning to ensure sustainability.

• Sun Pharmaceuticals is a private Indian company currently supporting a malaria elimination demonstration project in the highly endemic Mandla district in Madhya Pradesh through a unique public-private partnership, the first of its kind for disease elimination in India.

• Similarly, Tata Trusts, the oldest philanthropic institution in India, is collaborating with the state government of Odisha to accelerate malaria elimination in three highly endemic districts in southern Odisha. This effort includes a focus on extending malaria services to hard-to-reach areas of the state and improving malaria surveillance systems.

• Both projects have political buy-in and are meant to complement the NFME.

• The inclusion of private industry may not always reduce program costs but can improve performance, thereby increasing the return on investment. Private industries should recognize their comparative advantage relative to public health programs and contribute to the malaria elimination effort.
• Tata Trusts and the Global Fund recently partnered to launch the India Health Fund, which will pool private industry resources and expertise to address health challenges, starting with malaria and tuberculosis.¹

**Highlights of Session 4 Discussion**

• The state and national government play critical roles in private sector-led health programs. The inclusion of private industry may accelerate progress and complement traditional efforts through an injection of nimbleness and innovation.

• The marketing of behavior change communication and information, education, and communication interventions is critical. Marketing is something private companies are generally good at and this should be better leveraged in malaria elimination efforts in India.

• In motivating private industry involvement, one should appeal to the company’s mission statement and culture, and communicate data-driven impact. Identifying and engaging with a “champion” within the company is also recommended.

• Private industry tends to support a “learning by doing” approach, allowing for more flexibility and rapid adaptation to produce intended results. Applied to public health programs, this approach may improve efficient and effective problem solving and keep the focus on impact.

**Session 5: Sri Lanka: Preventing Reintroduction and Gaining WHO Certification**

**Chair: Roly Gosling**

**Presenter: Risintha Premaratne**

• In September 2016, Sri Lanka was certified by the WHO as malaria free, making it the largest lower-middle income country in the endemic tropics to achieve elimination.

• Importing malaria is considered the single greatest threat to sustained elimination in Sri Lanka. The majority of imported malaria cases in Sri Lanka are from India. In 2015, nearly 39 percent of imported cases (14 cases) originated in India.

• Challenges to elimination in Sri Lanka were not unlike those currently existing in India and included internal and external human migration, hard-to-reach areas and populations, and complex ecosystems and environments.

• Implementation of malaria elimination activities in Sri Lanka utilized a multisectoral approach including collaboration between the national Anti Malaria Campaign and the Ministry of Defense, Ministry of Foreign Affairs, private sector health facilities, and faith-based organizations in addition to close linkages with intergovernmental organization like WHO, UNICEF, IOM, and UNHCR. These close partnerships have continued into the POR phase.

• The WHO certification process was tedious—a country must prove beyond doubt that there have been no local malaria cases for three years and also that the surveillance system can continue to locate and respond to cases. Preparing and reviewing the necessary paperwork well-in advance is recommended.

**Highlights of Session 5 Discussion**

• Sri Lanka has very low LLIN coverage and does not currently engage in large-scale IRS campaigns. The program is aware of the risks of low vector control coverage but instead focuses on focal vector control activities and its strong surveillance and response system to test, treat, and track imported cases.

• Tamil Nadu and Sri Lanka have similar ecologies. Since the major risk to elimination in Sri Lanka is imported cases from Tamil Nadu, the two programs will be in contact to establish a meaningful partnership, and will potentially schedule a study tour to Sri Lanka for Tamil Nadu staff.

• There is legal precedent and political commitment for collaboration on malaria elimination between Sri Lanka and India (in addition to other South Asian countries) via the South Asian Association for Regional Cooperation (SAARC) initiative which has been ratified by all countries and health ministers.

**Session 6: Bangladesh, Bhutan, Nepal: How Cross-Border Malaria Challenges National Elimination**

**Chair: Magda Robalo**

**Bangladesh: How Cross-Border Malaria Challenges National Elimination, Presented by M.M. Aktaruzzaman**

• Bangladesh aims to eliminate malaria by 2020; in 2015 there were 39,719 malaria cases and 9 deaths in Bangladesh.

• Incidence of malaria is relatively high among border regions in Bangladesh compared to the interior of the country. The Chittagong Hill Tract region in Bangladesh, located in the southeast corner of the country and bordering Mizoram and Tripura states in India as well as Myanmar, accounts for roughly 90 percent of all malaria cases in Bangladesh.

• Incidence of malaria is relatively high among border regions in Bangladesh compared to the interior of the country. The Chittagong Hill Tract region in Bangladesh, located in the southeast corner of the country and bordering Mizoram and Tripura states in India as well as Myanmar, accounts for roughly 90 percent of all malaria cases in Bangladesh.

• There is poor infrastructure, inadequately staffed health facilities, and no definitive high risk population profile in these regions, hindering disease control efforts.

• A possible way forward for Bangladesh includes initiating communication among district-level officials along the India-Bangladesh border to share data and information and explore opportunities to share facilities, expertise, and/or create joint plans of action.

**Bhutan: How Cross-Border Malaria Challenges National Elimination, Presented by Rinzin Namgay**

• Bhutan aims to eliminate malaria by 2018. In 2016, there were 72 total cases, 54 of which were imported. The majority of imported cases in Bhutan originate in India (75 percent) and the most active foci of transmission are along the border with the Indian state of Assam.²

• Most of the imported cases occur among Bhutanese nationals who travel to India or among migrants from India, many of whom enter Bhutan to work in large infrastructure projects such as hydroelectricity projects located in otherwise malaria-free areas.

• Many of the interventions employed by the national malaria program in Bhutan are complicated by imported malaria and human movement. Key elimination activities such as directly observed treatment and case follow-up are not always possible under these circumstances.

• Inter-Country Meetings between India and Bhutan on cross border collaboration to eliminate malaria were hosted by WHO SEARO in 2016 but no definitive action has since occurred. Questions remain around how best to spur action and impact among neighboring countries, and who should be the driving force and/or intermediary behind cross-border collaboration efforts.

**Nepal: How Cross-Border Malaria Challenges National Elimination, Presented by Garib Das Thakur**

• Nepal aims to eliminate malaria by 2026. Between 2002 and 2015, there was an 89 percent decline in confirmed malaria cases in the country.

• Nepal’s most highly endemic districts are located in the west Terai region along the border with Uttar Pradesh and Uttarakhand in India.

• Over the last three years, imported cases constitute a larger proportion of remaining *P. falciparum* infections. These cases are primarily imported from India and contribute to periodic outbreaks in Nepal.

• Preliminary results from a recent formative assessment found that 69 percent of border crossings from Nepal to India are motivated by work-related activities.

• Further operational research on travel patterns and high risk population profiles will provide evidence for improved targeting of interventions.

• Existing multilateral organizations, such as WHO SEARO and SAARC, should seek to drive cross-border collaboration and action. Closer bilateral collaboration with India is needed.

**Highlights of Session 6 Discussion**

• There is insufficient cross-border collaboration and coordination in South Asia. Importation of malaria from highly endemic countries, such as India, poses a risk to low-endemic countries in the region, especially Bhutan, Nepal and Sri Lanka.

• Identifying human movement patterns is important to improve targeting of interventions. Importation does not occur strictly between bordering states and provinces, as is demonstrated by the preliminary study results in Nepal.

• Financing cross-border activities is difficult. It is possible for countries to divert portions of national Global Fund grants to finance specific cross-border activities.

**Highlights of Session 7 Discussion**

• There is insufficient cross-border collaboration and coordination in South Asia. Importation of malaria from highly endemic countries, such as India, poses a risk to low-endemic countries in the region, especially Bhutan, Nepal and Sri Lanka.

• Identifying human movement patterns is important to improve targeting of interventions. Importation does not occur strictly between bordering states and provinces, as is demonstrated by the preliminary study results in Nepal.

• Financing cross-border activities is difficult. It is possible for countries to divert portions of national Global Fund grants to finance specific cross-border activities.

**Session 7: Human Connectivity and Mobility in South Asia**

**Chair: Kamini Mendes**

**Presenter: Andy Tatem**

• Impacts of human connectivity and mobility include fluctuating demand for health services, parasite importation, challenges associated with targeting interventions to dynamic populations, and the potential spread of antimalarial-drug resistance across international borders.

• Human population movement is one of the greatest threats to malaria elimination but facts and data are difficult to collect.

• The traditional approach to measuring human population movement is across space and time using household travel history surveys, traffic surveys, and census data.

• New dynamic forms of data, such as mobile phone data, now exist. This information can complement other data sources including malaria prevalence and incidence data.

**Highlights of Session 7 Discussion**

• Using mobile phone data is only one piece of the whole. Alone, the data is not necessarily useful for malaria elimination, but it can fill information gaps to inform better decision-making.

• A strong surveillance and response system is necessary for malaria elimination.

• Mobile and migrant populations (MMPs) are disparate and diverse. Mobile phone data should be coupled with local knowledge in order to design useful interventions.

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² Final case numbers for 2016 were confirmed by the National Malaria Control Program in Bhutan in February 2017.
Session 8: Leveraging Existing Platforms for Malaria Elimination

Chair: Ben Rolfe

India’s National Polio Surveillance Project, Presented by Meghna Desai

- India achieved polio elimination in 2014. The National Polio Surveillance Project (NPSP) credits strong government ownership, an established accountability framework, and domestic funding as key attributes of the project’s success.
- The NPSP has tackled similar complexities that currently face the malaria elimination program including micro-planning, mitigating cross-border importation risks, developing sensitive and timely surveillance systems, and working in high risk and hard-to-reach areas of India.
- There are a number of existing systems and a robust network of human resources developed under the NPSP that are transferable to malaria elimination efforts in India, including micro-planning, advocacy and coordination, capacity building, strengthening malaria information systems, quality assessments, operational research, and supportive supervision.

Role of Research for Combating Malaria Elimination with Special Focus on the ASEAN-India collaboration, Presented by Neena Valecha

- India is working alongside several platforms to strengthen malaria elimination efforts, including multilaterals, donors, and private industry.
- The ASEAN-India Program on Science & Technology for Combating Malaria aims to utilize the region’s collective science and technology capacity to reduce and eliminate the malaria burden. At the kick-off meeting in May 2015, the group identified priority research topics, including malaria surveillance, diagnosis and treatment, malaria epidemiological data and information, bionomics of malaria vectors, and capacity building.
- NIMR and the NVBDCP have since begun collaborating on some of these research priorities, including exploring the preferential breeding habitats of vectors in urban areas in Punjab, and updating epidemiological data and information using mass surveys in select hard-to-reach areas in Odisha, among other activities.

Highlights of Session 8 Discussion

- The NPSP can be used as a national resource. The network is currently operating in every district in the country and has already begun supporting other vector borne disease programs, including improving IRS coverage for leishmaniosis, and is also supporting the development of an integrated disease response program.
- The objective of the NIMR and NVBDCP project to collect epidemiological data in Odisha is to improve the assumptions used to estimate case data; the project is not an effort to detect all cases in the catchment sites.
- Triangulating data with research projects may lead to an increase in case numbers; it is normal for malaria case data to increase as surveillance systems are strengthened.

Session 9: Financing National and Regional Malaria Programs

Chair: Marie-Goretti Harakeye Ndaysaba

Financing Landscape for National Programs, Presented by Rima Shretta

- To achieve malaria elimination by 2030, the Asia Pacific Malaria Leaders Alliance (APLMA) estimates that an average US$ 1.63 billion annual investment is required between 2016 and 2030.
- APLMA also projects a large funding gap for malaria elimination in the Asia Pacific region. This gap in part reflects that several countries in Asia Pacific are projected to graduate out of Global Fund support. Research shows that malaria resurgence in Asia happens rapidly and consistently when programs are weakened or stopped.
- Opportunities to expand malaria financing exist, including optimizing efficiencies—such as the efficient use of insecticides in Sri Lanka or spatial targeting of interventions in Swaziland—and the introduction of innovative financing mechanisms, such as the sin tax in the Philippines. In India, an opportunity to increase domestic malaria financing exists through repurposing domestic polio elimination funding.

Financing Regional Collaborations, Presented by Scott Filler

- There are supranational needs for funding, but does coordination and collaboration necessitate regional financing?
- There are currently four regional programs supported by the Global Fund, each grounded in the assumption that a regional approach is necessary to achieve malaria elimination.
- There are several widely accepted merits of regional financing, including more financial flexibility, expanding health access, data collaboration and information sharing, among others.
- For the 2017–2019 allocation period, the Global Fund plans to invest US$145 million in multi-country approaches, of which a majority (82 percent) will be dedicated to the GMS.3

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Highlights of Session 9 Discussion

• External funding should only complement domestic financial commitments. Several countries have been successful in earmarking funds for specific health programs, including Zimbabwe and the Philippines who reserve specific taxes for health priorities.

• The higher short term costs of elimination decline as countries implement POR strategies. Post-elimination requires the integration of services and continued surveillance.

• Malaria elimination is human resource intensive and does not rely heavily on commodities; it is crucial to ensure that these services and skills are sustained within the health system but it is difficult to obtain funding for them.

• There is room for countries to allocate resources for cross-border efforts from their own funding streams in addition to regional allocations from the Global Fund.

• The current Global Fund allocation formula effectively diverts funding from malaria eliminating countries in Asia Pacific to higher burden countries, despite the global public good that elimination provides. It is important that the Global Fund continues to focus on catalytic funding and does not withdraw funds from countries and regions too rapidly.

Session 10: State-level Elimination Efforts in Punjab: Goals, Priorities, Progress, and Challenges

Chair: Daniel Chandramohan
Presenter: Vini Mahajan

• Malaria cases in the state of Punjab have decreased significantly since a peak in 2010. The state aims to eliminate by 2020 and is considered a category one state by the NVBDCP.

• Publicly-funded health insurance schemes adopted by many state governments provide an opportunity to require malaria notification among private sector providers.

• Malaria control and elimination efforts include state and district monitoring committees and regular inter-sectoral collaboration.

• Challenges moving forward include improved entomological surveillance, especially monitoring insecticide resistance.

Highlights of Session 10 Discussion

• In order to effectively engage with the private sector, reporting guidelines should be minimal while still useful to the public program.

• Incentives do not always need to be aimed at the providers; it is possible to incentivize the patient as well.

Session 11: Realities of Multi-Country Collaborations: Data Sharing and Implementation

Chair: Richard Kamwi

Sharing data within the Greater Mekong sub-Region (GMS), Presented Fred Binka

• The key elimination interventions in the GMS include comprehensive case-based surveillance and entomological surveillance which rely on real-time reporting to facilitate appropriate and timely response activities.

• The regional data-sharing platform employs a user-friendly module and open source software, allowing for program adaptability. However, cross-platform compatibility has been an issue and there is a continued reluctance among national programs to share timely malaria case data.

• Data is currently reported monthly and not all countries have committed to this timeline. At a minimum, data should be reported weekly for the platform to be helpful.

Implementing a Regional Collaboration, Presented by Attila Molnar

• Since its inception in 2013, the Regional Artemisinin-resistance Initiative has expanded and elevated the role of civil society organizations (CSOs) in malaria elimination activities in the GMS.

• Several challenges to regional collaboration have been identified, including slow bureaucratic processes which have affected the speed at which interventions were rolled out. Additionally, the functionality of Country Coordinating Mechanisms varied by country.

• The next Global Fund grant will merge all malaria investments into one single multi-country grant. This is seen as an opportunity to increase efficiencies and address earlier challenges. The new grant is expected to start January 1, 2018.

Highlights of Session 11 Discussion

• Antimalarial drug resistance in the GMS is a public health emergency and the response thus far lacks a sense of urgency. Progress must be measured by parasite containment, not administrative and operational accomplishments.
• Two countries in the GMS, Thailand and Vietnam, have well-developed entomology programs and consequently also have relatively low malaria burdens. This is true in Malaysia and Sri Lanka as well. Vector Control and entomology are critical components to containing drug-resistant malaria. It was noted that “we won’t be able to treat our way out of malaria transmission.”

• CSOs have a clear comparative advantage in reaching high risk populations and regional collaborations offer Ministries of Health a platform to better coordinate with these CSOs to meet malaria targets.

• The shortage of trained entomologists is a global issue that challenges elimination prospects.

• While discrete cross-border and regional programs are important, how can countries institutionalize discussions with other countries or bordering states/districts?

Highlights of Session 12 Discussion
• No population should be considered “inaccessible.”
• New vector control tools are in the pipeline. The communication of new tool roll-out and their potential uses to national programs in Asia Pacific can be improved.
• Independent monitoring and evaluation is important at both the national and regional levels. Accountability, especially in the GMS, is needed.
• There is also recognition that existing tools are good enough to reach elimination. Sri Lanka achieved elimination by focusing on doing the basics well.

MEG XI: The Way Forward and Closing Remarks, Presented by Richard Feachem
• The true burden of malaria in India is unknown. However, there is demonstrated commitment to improving case estimates, which can be achieved in part by engaging the private sector more effectively and making malaria a notifiable disease. India should not postpone action while waiting for improved case estimates.
• Despite its differences, lessons can be learned from the Chinese national malaria program. The similarities in scale may help inform strategies in India.
• Sri Lanka’s significant achievement in eliminating malaria should not be overlooked. The global malaria community needs to support Sri Lanka in “holding the line.” Malaria elimination in Sri Lanka is a national, regional, and global public good. India can support this best by accelerating its own progress towards elimination.
• Dealing with the private sector in India is a major task that requires immediate action. The majority of people in India seek care within the private sector, but we have learned about the extensive misdiagnosis and mistreatment from private providers. States with short-term elimination goals, such as Punjab, should develop and demonstrate models on how to engage the private sector to improve diagnosis and treatment.
• States will lead elimination in India. There is a clear need for guidance and stewardship from the national program, but program design and implementation will be developed state-by-state. Category One states will be the pioneers of malaria elimination in India and should be encouraged to innovate and design effective elimination programs based on the local ecology and epidemiology. There may also be value in developing blocks of states that move towards elimination together.

Session 12: Accelerating Progress in South Asia: From Words to Action
Chair: Jim Tulloch
Panelists: Vini Mahajan (Punjab), Kamini Mendes (Sri Lanka), Sanya Tahmina (Bangladesh), Avdhesh Kumar (New Delhi)

• There are very real challenges to malaria elimination in South Asia, including decreases in funding, the indiscriminate use of data, outdoor transmission, and forest malaria.
• There is also a seeming failure to recognize that equity is the key to elimination. Ensuring equity in malaria diagnosis, treatment, and prevention services across all population groups is necessary to achieve elimination.
• Despite challenges, there are opportunities for accelerated action in Asia Pacific over the next few years. The tools that exist today work and there is multi-faceted political commitment in the region. The time is ripe to leverage momentum and advocate for increased domestic funding.
• There is a narrow window to eliminate malaria before drug resistance reaches South Asia. Communicating the message of malaria elimination as a global public good must be a priority.
• Building on polio programs is a great opportunity to accelerate gains, and not just in India. Malaria programs can leverage institutional knowledge of national polio programs to conduct robust surveillance, including among MMPs, and implement micro-level planning.
• Perhaps the greatest opportunity in the Asia Pacific region is that Sri Lanka has achieved elimination and several countries have nearly eliminated; “nothing breeds successes like success.”