

## **2017 Rotarians Against Malaria Conference, Sydney**

The 2017 annual RAM Conference was held at Rowers on Cook's River adjacent to Sydney International airport over the weekend of 19<sup>th</sup> and 20<sup>th</sup> August 2017. This was the first RAM Conference to be held in Sydney and was attended by 71 delegates representing 16 Rotary Districts. This was the first RAM Conference to be held in Sydney following the policy of rotating the Conference venue through the major eastern seaboard cities to make it easier for more Rotarians to attend and be inspired by RAM's programs and mission. The Conference agenda included updates on progress in the countries where RAM has active programs, reports on the progress of malaria research, the RAM AGM and discussion sessions where future directions for RAM were planned.

### **Conference Opening:**

Delegates were welcomed to the Conference by host District 9675 Governor Steven Britten and the National Chairman of RAWCS PDG Michael Perkins. The Conference commenced with a review of RAM's progress in 2016/2017 by National RAM Manager, PP Dave Pearson, who welcomed delegates and summarised RAM's achievements over the previous twelve months including ongoing programs in PNG, Solomon Islands and Timor Leste . Dave also introduced the invited speakers including representatives from the Ministry of Health in Timor Leste, Dr Merita Monteiro, and from the Solomon Islands Health Promotions Dept. Mr Ben Rickie, distinguished researchers, RAM Sponsored PhD candidate Edgar Pollard and the team of RAM Volunteers recently returned from Timor leste.

Dave recognised the recent sad loss of past RAM National Chairman and long term RAM Funding Coordinator PDG Richmond Manyweathers whilst also reporting on the presentation of RAWCS Humanitarian Service Awards to RAM pioneers Wayne Morris and Ron Seddon. He noted that the RAM Annual report had now been printed as part of the published RAWCS 2017 Annual Report .

### **Summaries of progress in countries where RAM has been active:**

#### **Papua New Guinea: report from Tim Freeman RAM PNG.**

Tim reported that RAM PNG is currently undertaking the third round of universal bed net distributions to households. He described the process as a three year rolling cycle with teams moving systematically from province to province. Persistent malaria still exists in West Sepik and Milne Bay Provinces and despite an overall reduction in malaria incidence of 70% there are indications that incidence is starting to increase.

Tim said that the cause of increased incidence was not clear and speculated that people might be staying up later and spending less time protected by bed nets or that perhaps it was related to persistent stock-outs of anti-malarial drugs in local clinics supplied by the NDOH. On a positive note Tim reported that the Bougainville

“Healthy Island” program, similar to ‘Healthy Villages’, appears to be helping in malaria control and that perhaps this could be a future area for RAM assistance.

Tim also reported that Global Fund grants for PNG continue to decline and although RAM PNG will be the sole Principal Recipient for the 2018 grant the US\$4.5 M will only fund distribution costs however the Against Malaria Foundation has agreed to fund the net procurement along with local corporate funding.

Tim described progress in the RAM funded “Chasing Malaria” program which maps positive diagnosed malaria cases in NCD and Central province, identifies malaria case clusters and follows up with Community based interventions. This includes more village disease education, identifying and dealing with mosquito breeding areas, ensuring all local people are using LLINs and encouraging alternate ongoing use of superseded LLINs e.g. as window screens.

Tim also reported that the Private Sector Retail initiative, where RAM was seeking to sell LLINs and Mosbar at affordable rates, is back on track following agreement with the Government over GST treatment.

### **Solomon Islands: RAM report by PDG Wayne Morris presented by Dave Pearson.**

Wayne reported that to date a total of 160 villages had been supplied with tools under the RAM ‘Healthy Villages’ program at a cost of AUD\$200,000. The RAM program in the Solomons has benefited from regular transfers of funds from RAM in Australia, direct contributions, e.g. a grant from RC Benalla of AUD\$8,500; as well as local corporate funding. These funds have enabled RAM to provide tools for a further 29 villages.

The provision of bed nets and spray control is continuing to be funded under the Global Fund, the funding of the program has been changed with the SI Government having to provide the funding first before being reimbursed. Malaria elimination programs are continuing in Temotu and Isabel Provinces with funding from DFAT (Australia) and a similar program is planned for Western Province.

### **Timor Leste: report by PDG Phil Dempster.**

Phil told delegates that RAM’s support for the Timor Leste NMCP was continuing and evolving. The latest bed net distribution is taking place in the Oecusse enclave with 40,000 nets funded by the Global Fund and logistical costs met by RAM. He also noted that this year RAM has commenced funding the Rotary Club of Dili Lafaek “Healthy Villages” project in Dili and Liquica districts. To date twelve villages have participated in this trial project which encompasses Community health and hygiene awareness training, establishing Community Committees, planning health interventions and building permanent rubbish disposal facilities, aimed at reducing mosquito breeding as well as improving village hygiene.

These developments were covered in more detail by the report from the RAM Volunteer team recently returned from assisting RCDL. (see below)

### **Presentations from Target Countries Department of Health Officials:**

**Mr Ben Rickie Kiokimo; Director Health Promotions Dept. Solomon Islands MOH&MS.**

Ben described the Healthy Village Settings program, that he supervises, which is supported by RAM. He told delegates that to date 200 villages and 30 schools had benefited by developing and enacting self-help programs to improve the general health and wellbeing of these communities. He noted that the Solomons MoH&MS with help from RAM and the Global Fund had been so effective in controlling malaria that it was no longer rated in the top 10 dangerous diseases and that now non-communicable diseases related to metabolic and behavioural risk were the main concern.

Ben reported that the 658,000 population was 78% rural based and had variable access to Health Services, mostly clinics staffed by Nurse-Aids as the patient Doctor ratio was 1:5,098. Ben told us that there was competition amongst Villages to secure “Healthy Villages” support which his Department attempted to distribute on a fair basis. He noted that the risk of a renewed malaria epidemic was understood and that the ‘Healthy Village Settings’ program was a good point of entry to discuss health and disease prevention with villages. Ben said he was open to helping to facilitate future RAM Volunteer teams to assist with the program.

**Dr Merita Monteiro; Head of Communicable Disease Division Timor Leste MoH.**

In her presentation Dr Merita tracked how the Timor Leste National Malaria Control Program (NMCP) had taken the country from Control to Elimination in 10 years and was now changing its name to the National Malaria Elimination Program. In 2006 malaria incidence was 1 in 4 people and the NMCP had only 2 staff. Recent statistics show an incidence of less than 1 in 10,000 and the focus is now on achieving WHO malaria free certification. She reported that 98% of recent cases occurred on or close to the borders with Indonesia.

Dr Merita reviewed the robust evidence based approach to the malaria campaign conducted by the NMCP showing how the elements of this approach as well as regular follow-up of vector control and close Government support had enabled the success. However she also noted that the Global Fund was also significantly reducing their funding now that the disease incidence was so low and so there was a worrying short fall in funding to achieve elimination. She expressed the gratitude of the NMCP for RAM’s support and expressed the hope that RAM could assist with meeting the shortfall of funds to maintain bed net protection of at risk population and vulnerable groups as well as assisting in replacing worn-out residual indoor spraying (IRS) equipment.

**Presentations by Researchers on the fight against Malaria.**

**Associate Professor Harin Karunajeewa; WEHI:**

With a local goal of malaria elimination in the next 13 years Harin noted that the most successful interventions to date have been LLINs(best control), drug treatment followed by IRS. He added to concerns expressed that when malaria prevalence is

driven down then local health authorities relax and focus on other pressing health issues. Indeed he presented an up dated malaria epidemic history graph for the Solomons showing a worrying recent up-tick in cases. Previous significant falls in malaria incidence have mostly been Pf and as a result the ratio of Pf to Pv frequency is rising rapidly with Pv now representing 2/3 of new cases and 4 out of 5 of these are relapses from previously introduced hypnozoites.

Harin noted that current drug treatments were only 50% effective at resolving Pv infections and described the field study he is conducting at Tetere, which is currently one of the most malarious places in the Solomons due to the concentration of oil palm workers. Harin highlighted the risks of Drug Drug Interactions (DDIs) in the current best practice treatment employing Primaquine and ACTs and went on to outline his research aimed at investigating the degree of DDIs in current treatments and identifying the optimal drug combination and dosage for radical cure of Pv infections.

### **Professor Denis Shanks; Australian Army Malaria Institute:**

In his talk titled “How we are going to eliminate malaria.” Denis reviewed recent successful control and elimination cases including the Amazon basin where very little Pf remained and rates of Pv are falling. He praised the work under way in China where most cases these days were infected Chinese workers returning from Africa and attributed the effective elimination of local transmission to massive administration of Primaquine.

He noted that progress was threatened by drug and insecticide resistance, mostly in Asia, but that it seemed under control for now whilst work on a replacement for permethrin was progressing. He also reference exciting progress in gene shearing (CRISPR), mosquito specific baits and drug developments including Tafenoquine to replace Primaquine and the use of Ivermectin in breaking the mosquito borne part of the parasite life cycle.

Other developments, that would be needed, included better diagnostics as evidence suggested that RDTs were missing some low level Pf infections as well as some Pv. Denis stated that if an anti-transmission vaccine was going to be available in time to assist global eradication programs then it would need to be in advanced trials now, given the long regulatory lead times.

### **Dr Danielle Stanisc; Institute for Glycomics, Griffith University:**

Dr Stanisc presented an update of progress towards producing a chemically attenuated whole parasite vaccine based on Plasmodium falciparum called PlasProtect®. She noted that the vaccine must be simple, cheap, effective and well tolerated and that so far all indications were positive. She noted that the production of ‘T’ cells triggered by application of the vaccine was particularly encouraging and that early indications suggested that the induced immunity would be effective on multiple species of plasmodium.

Proposed human trials will involve three sets of ten volunteers who will be give different dose rates and closely monitored. Each volunteer would have to possess sixty required attributes to be selected.

Dr Stanistic reviewed the track record of the only currently registered malaria vaccine, RTS S<sub>1</sub> which is currently undergoing a huge trial involving 300,000 children in Ghana, Kenya and Malawi. Recent long term trials indicate that RTS S<sub>1</sub> only retains 7% efficacy after 7 years and only had a peak efficacy of 38% against Pf only, following the required four treatments. Despite these poor results the huge development sunk cost and long lead time had severely cautioned potential supporters who now required far more advanced data before committing to fund other vaccine candidates.

#### **Associate Professor Bayden Wood; Monash University:**

Bayden described his research into the application of Attenuated Total Reflection Spectroscopy as a novel method for detecting very low level malaria parasite infections in people from blood prick samples. The aim was to develop a new highly accurate field test for asymptomatic malaria carriers that could contribute to elimination programs. He described field trials conducted in Thailand, Laos and PNG where each patient's blood was tested by three different techniques but voiced concern that the subjects that had been selected did not include many asymptomatic carriers and so he was looking for further trial sites.

He noted that results to date had been very encouraging and that preliminary patent protection was being sought and that it was hoped that further trials would help develop an instrument and routine that enable local health workers to use the technique in remote locations.

#### **RAM sponsored PhD student Edgar Pollard; Australian Institute of Tropical Health & Medicine:**

Edgar reported that he had completed his field work and was now relocated to Cairns to conduct further laboratory studies and data analysis. He displayed a very well-produced video tracking the movement of a mosquito around a typical Solomons village setting. Edgar noted that most mosquito biting occurred after dark and that changing human behaviour was contributing to increased risk.

Edgar reported that there was currently a higher proportion of younger people who stayed outside to socialise after dark and so were vulnerable to bites even though later in the evening they slept under LLINs (86% of people surveyed used LLINs). He noted that new vector control such as repellents, mosquito baits and screening might be required to maintain low infection rates.

#### **Report by RAM Volunteer Team: Timor Leste, June 2017.**

The team reported that they had enjoyed a busy and productive time in Dili and Arturo Island. They had met with officials from the Global Fund, WHO and NMCP and participated in a bed net distribution with the NMCP. They had met with the

Rotary Club of Dili Lafaek and assisted with 'Healthy Village' activities including installation of steel rubbish bins and village clean-up. On Arturo Island they had inspected a RAWCS water purification project and sanitation requirements.

The team reported that they were deeply impressed by the NMCP. The team was also very impressed by the enthusiasm and hospitality of the RC Dili Lafaek members and their ability to involve other young people in volunteering (for the good of their nation) on their project. They proposed that RAM should seek closer collaboration between RC Dili Lafaek and the NMCP as well as improving guidelines to increase the malaria focus of the project.

### **RAM AGM.**

A brief AGM was held at the commencement of conference sessions on 20th August.

National Chairman Dave Pearson reported that RAM had had a strong year for both fund raising and awareness raising with a 60% increase in donations received whilst at the same time the fund raising project in support of the vaccine development at the Institute for Glycomics was well underway. The RAM Executive Committee had met on the morning of 19<sup>th</sup> August and determined that the 2017/2018 budget would be \$200,000 to be distributed in the following proportions: 50% to PNG, 5% to Solomons, 20% Timor Leste, 12.5% to the PhD scholarship and that 7.5% would be held unallocated (for new initiatives) and 5% for administration and Conference costs.

Dave reported that the aspirational target for fund raising of \$20,000 per Australian Rotary District, agreed at the 2015 Conference, had been exceeded in D9810 during the past year confirming that it was a realistic goal for most Districts.

The revised RAM Procedures Document had been previously circulated to all RAM District Chairs and given tacit approval by the RAWCS Ltd Board. The document was then unanimously endorsed by delegates at this AGM.

Nominations for Executive Committee positions of Deputy National Manager, Funding Coordinator and Scientific Committee Coordinator had been called for prior to the Conference and again on the floor; Mr Bill Oakley was elected unopposed as Funding Coordinator, Dr Bruce Anderson was elected unopposed as Scientific Committee Coordinator. No nominations were received for Deputy Manager and Dave commented that this position must be filled urgently if there is to be a reasonable induction and hand-over period prior to his term of 3 years as National Manager expiring on July 1<sup>st</sup> 2018.

### **RAM District Chairs Training session.**

In this session Dave covered the history of RAM, it's achievements to date, organisational structure and communications as well as reviewing RAM's current vision and increasing focus on malaria elimination. The use of personal stories as

well as the free access to all existing RAM PowerPoint slides was emphasised in the important role of presenting RAM and our goals to Rotarians and the public. The basic aspects of the role of RAM District Chairs were discussed and the pro-forma annual report, with its embedded benchmarks, was described. Dave noted that basic job descriptions for RAM people were included in the Procedures Document and that a more complete discussion of the role of district Chairs would be circulated after the conference. (all the documents mentioned and Conference presentations will be posted on the RAM website.)

RAM's PR and Media Coordinator Holstein Wong conducted a thorough demonstration of RAM's new web site and the RAM Facebook page was displayed. Holstein highlighted the Contacts listing, Reports and Newsletters section along with photo galleries, presentations, videos, documents, leaflets and other resources all available on the site for RAM Chairs and Committee members to assist in preparing presentations and getting the message out. Delegates were asked to look for opportunities to post RAM activity short reports on the RAM Facebook page (contact Holstein to post) and prepare reports for their District enews and RDU magazine. Dave added that he was more than happy to have RAM presentations plagiarised by RAM Chairs in developing their own presentations.

### **Reports on RAM related activities in Australia.**

#### **Rotaract Project: Michael Shields: Chairman -Rotaract Australia Against Malaria.**

Michael reminded delegates that RAM had been adopted as a National project of Rotaract at the 2013 National Conference and had raised \$30,000 for RAM's programs over three years including \$8,567 over the past 12 months. He noted that with the annual turnover of office bearers new Rotaractors inspired by RAM's work would be required to maintain the interest and enthusiasm in Rotaract.

Michael encouraged RAM District Chairs to engage local Rotaractors in their District programs as well as seeking to speak at Rotaract meetings. He noted that across Australia there are 60 Rotaract Clubs and about 1,000 Rotaractors .

#### **Schools Video Competition.**

The two short videos prepared by Victorian Primary School students as a pilot for a future National competition were screened after the Conference dinner and a winner determined by show of hands. Inaugural winners were the students at Brighton Primary School. The videos will be available to be viewed on RAM's web site and Facebook page.

#### **Malaria Awareness Day (MAD) and World Malaria Day Activities.**

2017 MAD activities from around the Nation were briefly reviewed as examples of successful awareness raising and fund raising opportunities.

**Project to Support human trials of the Institute for Glycomics Vaccine candidate.**

Speaking straight after Dr Danielle Stanisic's presentation PDG Graham Jones presented a report on progress of D9640 Project (RABS 16-2016-17) aimed at raising \$500,000 to support the next phase of human trials for PlasProtect®. Graham reported that in little over six months the project had raised \$212,000 and now had it's first corporate sponsor in Zarraffa's Coffee. He added that now that the \$200,000 had been achieved Professor Good had sufficient assurance of funding to commence preparations for the trials.

Graham noted the successful launch of the Project by Governor General Sir Peter Cosgrove, who had commented that the combination of "Whitecoats and Rotarians working together" was a powerful model. Graham reported that a presence at the RI Convention had opened possibilities for more support from Rotary in the USA.

**PP David Pearson.**

**National Chairman: Rotarians Against Malaria.**