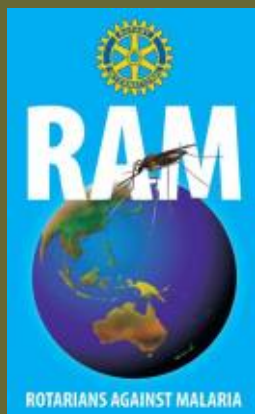


May 2009
Issue 8

RAM Newsletter

(Australia, Papua New Guinea, Solomon Islands and Timor Leste)



Chairman's Message

My Rotary friends and friends of Rotary,

Twelve months ago we made the decision to introduce a Malaria Awareness Day in Australia. 30 April was the agreed date with the campaign to run for the whole week commencing 26 April 2009. Many months prior, D9800 PR Team had advised me they were prepared to be directly involved in a national project with RAM if a suitable event became available. Their involvement in the Malaria Awareness Day Campaign (MAD) became almost automatic as a result. Other Melbourne based Rotarians immediately came on board to provide ongoing and invaluable support. Eventually, and to varying degrees, every state and territory became involved in the campaign. I believe the end result can only be described as highly successful.

It is worth highlighting a number of our campaign successes:

- The development of a new website which was introduced in time to utilise it as an important reference source in the MAD campaign (www.ramaustralia.org)
- Introduction of a new logo developed in D9710. It is intended that the change to the new logo will occur over time;
- A lead article in the April 2009 RDU magazine including the front cover photo;
- Reference to MAD included in the March 2009 issue of the RI Health & Hunger Resource Group Newsletter;
- Presentations and display booths at District Conferences;
- Displays in public places including markets;
- Articles in DG's Newsletters;
- Media articles in local newspapers;
- Numerous clubs organised either special fund-raising events or scheduled a guest speaker to speak on malaria at their normal club meeting;
- Development of "A Community Statement" which incorporated reference to our highly successful and financially well supported programme, Adopt A Village;
- TV Community Service Announcement. The WIN network broadcast the announcement in Queensland, New South Wales, Victoria and Tasmania;
- Although not forming part of our planning for this year, a community service announcement was broadcast on a radio network. In addition, a community radio station broadcast the announcement 32 times during the whole of the week's campaign and on a number of days prior.

I extend my sincere thanks to each and every person who freely provided their time, expertise, and energy towards the MAD campaign. The commitment and dedication provided by all of you has, without doubt, raised the awareness in the minds of both the general public and Rotarians, what this dreadful disease is all about and the impact it has on the lives of so many people. It is our hope that this awareness will encourage many more members of the public to consider becoming an integral part of our great organisation through membership of their local Rotary club.

PDG Bill Dethlefs
National Chairman

OUR OBJECTIVE

"The prevention of mortality, and a reduction in morbidity and social and economic loss caused by malaria through a progressive improvement and strengthening of local and national capabilities in malaria control."

Sunshine Coast (Qld) Clubs Raise Funds for Malaria Eradication Campaign

"If you don't get bitten, you won't get malaria."

That was the message which spurred the Rotary Clubs of Buderim and Woombye Sunrise in RI District 9600, to raise funds for the purchase of Long Lasting Insecticide Treated Mosquito Nets (LLIN) for Papua New Guinea and the Solomon Islands, under the 'Adopt A Village' (AAV) programme of the Rotarians Against Malaria (RAM) campaign.

On Saturday, 2nd May 2009, the Rotary Clubs of Buderim and Woombye Sunrise jointly ran a successful fund-raising International Theme Night. More than 100 charitable local residents and guests from afar individually paid \$35.00 to attend the event and support a worthy cause. A surplus of almost \$4,000 was raised from the night.

Prominent guests included DGE Walter Buchanan, RAM National Chairman PDG Bill Dethlefs, and Professor Dennis Shanks - the main speaker - an American who is currently Director, Australian Army Malaria Institute located in Brisbane, and also a well-known authority on malaria. Professor Shanks spoke to the subject: "Malaria Elimination in Melanesia – Will we be able to do better this time?"

Jan Lawton is to be congratulated for the excellent food, prepared and served by Woombye Sunrise Rotarians and their partners. Entertainment consisted of Polynesian, Spanish and belly dancing. Several guests participated in the hilarious mosquito net folding contest. The majority of the raffle prizes were won by locals.

The International Theme Night, a Malaria Awareness Day event, was coordinated by International Service Director Laurence O'Keeffe of the Rotary Club of Buderim.

National Conference

Our annual conference was held over the weekend of 30 & 31 May 2009 at St Columban's Catholic College, Caboolture on the northern outskirts of Brisbane. Delegates attended from South Australia, Victoria, New South Wales, Australian Capital Territory, Queensland, and Papua New Guinea. The Saturday evening dinner attended by over 50 people was enthralled by the presentation of Dr Katharine Trenholme, Senior Research Fellow at the Queensland Institute of Medical Research.

Some subjects discussed in detail included: improvements to our new website; Malaria Awareness Day (MAD) and the successes achieved – it was agreed to conduct a MAD campaign in 2010; a full review of the Adopt A Village programme – to avoid potential donor confusion a statement setting out our future attitude is to be prepared for general circulation.

Tentative date for next year's conference is 15 & 16 May 2010.

The conference proceedings report is available at www.ramaustralia.org

We have the tools to fight a major disease of the world's poor.

By **PETER CHERNIN**

In the midst of the most severe global economic crisis in generations, prioritizing U.S. aid to other countries has never been harder. When we're making these difficult choices, which will affect the quality of people's lives the world over, there is one investment we can't afford to ignore: malaria control. This is a disease we can completely eliminate -- right now.

Think about it. We have the tools today to cure an illness that kills one child every 30 seconds. Besides the human toll, its economic and social impacts are also devastating: Sick children miss school, parents miss work to care for them, and development is stifled. In Africa, malaria eats up 40% of all hospital expenditures and costs economies there \$12 billion annually in lost productivity. That's a crippling 1.3% annual loss in GDP growth in countries where it is endemic. Malaria is a self-perpetuating problem -- the disease wipes out the human and economic capital necessary to bring the disease under control.

The U.S. has taken a strong leadership role in funding the prevention and treatment of malaria world-wide. While the idea of cutting that funding during an economic downturn may seem appealing, doing so would forfeit our chance to finally reach the tipping point with this devastating disease.

According to a 2008 McKinsey & Company report, if the world rapidly increases malaria funding now, we can capitalize on amazing human returns -- at least a 100% increase in lives saved, and more than 60% of infections prevented. This would free up countless hospital beds and

professionals to handle other diseases to save other lives. We'd also soon see dramatic economic returns, including the generation of \$80 billion in increased GDP for Africa and \$50 billion more in economic output over five years.

How do we know this investment will work? Because we've already seen results beyond all expectations in some places in Africa. In the mid-2000s, Zanzibar blanketed the country with bed nets, attaining a 90% coverage rate, and provided its citizens with access to free, top-line medications. Together these efforts produced a 75% drop in malaria-related mortality in children under the age of five, and a 77% drop in malaria-related hospital admissions. In Rwanda, a national roll-out of top-line antimalarials and 2.4 million insecticide-treated bed nets resulted in a 66% decline in child deaths. It's worked in Burundi, Eritrea, Kenya and Ethiopia as well, all with financing from the Global Fund to Fight AIDS, Tuberculosis and Malaria.

Many Americans don't know about the Global Fund's important work. It is the world's largest financier of malaria programs, and more importantly it believes in all the things any good business should -- accountability, transparency, and a strong and continuous return on investment. It's a shining example of performance-based funding. We can be glad to know that our support for the Global Fund is done in partnership with other countries; for every dollar we Americans put into the Global Fund, the rest of the world contributes another two.

Tomorrow is World Malaria Day, an opportunity to reflect on the tremendous momentum already achieved and the potential for a victory. The tools we need to protect people from malaria are some of the simplest and most cost-effective of any disease: protective nets, diagnostic tests, antimalarial drugs and indoor spraying of recommended insecticides. Effective malaria treatment costs just \$2 per recipient. What's more, there is both local and international will to stamp out malaria; governments like Ethiopia's have created national plans to combat the disease, and global health organizations are partnering with them to provide strong support.

There is no doubt we have tough financial choices ahead, but we must not miss out on this historic opportunity. Malaria is tragically crippling developing countries. The world has made it a goal to eliminate this disease, we have cost-effective tools to do so, and the systems are in place to make it happen. Now is the time to put our money behind this sound investment.

Mr. Chernin sits on the board of directors of Friends of the Global Fight Against AIDS, Tuberculosis and Malaria (www.theGlobalFight.org) and is chairman of Malaria No More (www.malarianomore.org). He is the president and chief operating officer of News Corporation.

RAM Chairman Bill's Note: This editorial appeared in the Wall Street Journal on 24 April 2009. Even though World Malaria Day has passed for this year, the contents of the editorial remain valid.

Defend Against Dengue

In Cairns (Qld), State and the Local Regional Council have adopted a new line of approach with prevention of breeding sites being the top priority. It is claimed that 50,000 breeding sites have been found by the Vector Control Teams. These teams have inspected 14,000 properties since a foreign visitor brought the disease into Cairns.

The statistics as at 1 April 2009 are as follows:

City/Town	Date Outbreak Declared	Confirmed Cases
Cairns	1 December 2008	798
Townsville	5 January 2009	72
Port Douglas	6 February 2009	3
Yarrabah	19 February 2009	2
Injinoo	24 February 2009	2
Innisfail	27 February 2009	12
Mareeba	6 March 2009	1

So why has the outbreak not been contained? The authorities claim – complacency.

The most common breeding sites are: pot plant bases; plastic containers; boats; bird baths; tarpaulins. Also, palm fronds and roof gutters that do not drain properly are also causing problems.

So why are residents not cleaning up their yards? As a Cairns Resident I hear plenty of media coverage about Dengue. The Cairns Regional Council has however been criticised for not funding a hard waste pick up. This is valid with regard to the cost but perhaps a targeted pick up should be available for the suburbs with high dengue numbers and/or older residents helped.

Where to from here? March has been the driest on record; this has reduced the amount of new cases as residual breeding sites reduce naturally.

I believe that continued education is the way forward with prevention the most important aspect of any education campaign. One death too many has been the result of this outbreak to date but the story really does not stop there as so many Far North Queensland residents feel the effects, through lost days at work and the misery, of the disease itself.

Nearby potential hotspots such as Darwin and Singapore have dealt with the Dengue problem, now it is up to the Cairns Regional Council and the Queensland State Government to convince Cairns residents to:
DEFEND AGAINST DENGUE.

Susanne Rea
Publicity and Development Officer, RAWCS Northern Region.

DID YOU KNOW

World-wide, total approved funding for Global Fund funded programs for malaria currently exceeds US\$4.6 billion.

The hope but challenge for developing a vaccine that might control malaria

There are about 250 million cases of malaria and 900,000 deaths per year. Drug resistance worsens and combination drug therapy is now recommended to prevent the development of resistant strains. In terms of prevention, bed nets and indoor spraying of insecticides are the main tools; as vaccines are not yet ready.

To consider the strategies for vaccines that are currently under development it is necessary to first briefly review the life cycle of plasmodium. Infection commences with the bite of an infected *Anopheline* mosquito that injects sporozoites into the lymph and circulation. Those that travel to and invade liver hepatocytes can develop over a week into thousands of merozoites that rupture the liver and invade red blood cells. One merozoite can develop inside an erythrocyte over a period of 2 days (for *Plasmodium falciparum* and *Plasmodium Vivax* – the commonest of the human malaria parasites) into 16 merozoites that rupture the red cell and further invade.

The parasite burden thus rises rapidly and severe pathology can ensue. Sexual forms develop within erythrocytes and these can be taken up by mosquitoes during a blood meal to continue the life cycle. Vaccine strategies aim to block the life cycle at these different stages. The most developed strategies are to block the sporozoite and/or destroy the infected hepatocytes (sporozoite/exoerythrocytic vaccines) or to block invasion of merozoites into erythrocytes or to destroy infected erythrocytes (blood-stage vaccines).

The most developed vaccine strategies are -

1. Sporozoite/exoerythrocytic vaccines - to block the parasite at its initial sporozoite stage, and/or destroy infected liver cells before the rapid development of thousands of the merozoite-stage parasites that rupture from the liver and invade red blood cells.
2. Blood-stage vaccines - to block the invasion of merozoites, or to destroy infected blood cells.

In 1983, the subunit era for malaria vaccine research commenced with the cloning of blood-stage and sporozoite-stage antigens, quickly leading to the first human subunit vaccine. In studies, the majority of volunteers were not sufficiently protected, showing that one of the challenges for these vaccines is that they must be 100% effective in either neutralizing sporozoites, or in killing infected liver cells.

Subsequently an enormous amount of research led to clinical studies involving recombinant, synthetic and DNA-based vaccines. However, only one preparation, “RTS,S”, reduced clinical episodes of malaria. Recent trials have shown encouraging results but much more research is needed. Issues with RTS,S include its variable level of observed protection (ranging from 29% to 71%), and the apparent lack of immunological memory (i.e.) protection is achieved for only a relatively short period of time.

Back in the 1970s there was considerable enthusiasm for developing blood-stage malaria vaccines using whole parasites. However, large doses of infected red cells were needed to induce efficacy. How could such numbers of parasites be cultured when human blood was required for their production?

The subunit era effectively buried this research as there was then incredible optimism for developing a vaccine based on recombinant forms of merozoite surface proteins. This approach was shown to be highly successful in inducing protection in animal models. However, it remains to be seen whether significant clinical hurdles will arise from the issues around antigenic polymorphism, immunological memory and the need for high antibody levels.

Tests of a candidate vaccine, SPf66, were inconclusive and a review found no justification for further trials of SPf66 in its current form.

With the ongoing challenges of subunit vaccines for both sporozoite and blood-stage vaccines, the whole

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vaccine strategy is being re-appraised. Intense efforts are under way to formulate attenuated sporozoites that could be inoculated by syringe. The challenges now seem to be more operational than scientific, although maintenance of immunological memory to this vaccine may be an issue.

Whole blood-stage parasite vaccines are also being re-examined. In the 1970s monkeys were protected by vaccination with large numbers of irradiated or killed infected red blood cells. Our own research, supported by Rotarians Against Malaria and the National Health and Medical Research Council, shows, that immunization of mice with as few as 100 dead parasites can induce protection. However, significant hurdles remain for translation to humans.

The major challenges in developing a malaria vaccine have persisted since the subunit strategy. There is a need to pursue polyvalent strategies whether they are based on synthetic, DNA-based, recombinant approaches, or a whole organism vaccine. Genomewide studies involving immunomics may prove invaluable in identifying vaccine components.

There certainly is hope for a malaria vaccine but the challenges are still formidable.

(Condensed for lay readers from a 2009 paper by Prof. Michael Good, Director, Queensland Institute of Medical Research)

New Malaria Treatment Center Opens in Papua New Guinea

The not-for-profit group Rotary Against Malaria on Monday opened the Rotary Malaria Resource Center in Port Moresby, Papua New Guinea, the Papua New Guinea Post Courier reports. The center will provide no-cost services for people with malaria symptoms, including diagnostic blood tests and malaria treatment. Those who test negative for the disease will be referred to other health facilities, the Post Courier reports. Ron Seddon, chair of RAM, said the center will enable people to obtain malaria treatment within one hour. Seddon also encouraged employers to send staff members with malaria symptoms to the clinic.

According to Powes Parkop, adviser to the district governor on health reforms, and Timothy Pyakalyia, former executive at the Department of Health, the opening of the center will coincide with new malaria efforts in Papua New Guinea. According to the officials, the government plans to change the malaria treatment it supplies and procure new diagnostic technologies. Parkop added that the malaria clinic will align with the governor's plan to upgrade urban clinics to district hospital levels. Sam Kove, district health adviser, said he hopes the local government will set aside funding to help renovate one section of the clinic. According to local official Carol Kidu, the government has allocated 129,000 Papuan kina, or about \$48,000 for the center.

Leo Makita, official with the health department's malaria program, said about 2.7 million people in Papua New Guinea visit health centers for malaria treatment annually.

Source: Papua New Guinea Post Courier, 2/24; article submitted by Ron Seddon.

Malaria Awareness Day

We are aware of many individuals and clubs who assisted in a variety of ways to make Malaria Awareness Day (MAD) a very successful event. Those many people who assisted in some way in the planning process should be extremely proud with the outcome.

A number of success stories resulted from the event. This is one of them.

National RAM Deputy Chairman, PDG Ian Sayers, was invited to speak at the MAD function organised by the Rotary Club of Morwell, District 9820, Victoria. This is Ian's story.

"Morwell had gone to a great deal of trouble to make Malaria Awareness Day a resounding success. It was a top effort. Someone made mosquitoes, one large enough for the body to be a money box. They had set up an information booth at a shopping centre and collected donations using the "mosquito money box" all day yesterday (MAD 30 April).

There are a host of smaller mosquitoes that are going to be distributed around schools. There were signs scattered through Morwell. We saw one on the way back (home) at the head of a T-junction – it couldn't be missed.

They had about 80-90 people at the dinner last night. They then had "The Mosquito Man" a club member covered in a bed net going around collecting donations and/or pledges. That was very successful with well over \$2,000 being raised including a donation of \$1,000 from Loy Yang Mine. In addition, a special plaque was presented to the administrators of an Estate who decided to donate \$10,000 to Adopt A Village from the Estate."

Congratulations Rotary Club of Morwell on your outstanding success. Thanks also to Ian for taking the time to make all of us aware of a hugely successful event.

Of special interest is the number of donations received that relate to MAD. Quite a number were personal donations, all of which will receive a tax deductible receipt. We are especially thankful to these people for their personal support.

Support for Adopt A Village programme is as strong as ever. Donations are being received throughout the year from many clubs. My gut feel is that when the total amount donated becomes available as at the end of June 2009 the end result will show the level of donations received for 2008-09 will be substantially the same as previous years. A tremendous effort, one that all involved can be very proud of.

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Contributions and comments are welcome.