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NEWSLETTER

July - September 2019

WELCOME to RAM Quarterly Newsletter July - September 2019.

Rotarians Against Malaria (RAM) is a national Australian activity managed by a group of Rotarians passionate about eliminating malaria in our Asia-Pacific region. Governed by Rotary Australia World Community Service (RAWCS) Ltd., we are an Australian Rotary initiative that dates back to the 1990s. RAM's mandate is to eliminate malaria in our partner countries (PNG, Solomon Islands, Vanuatu, Timor Leste and West Timor [Indonesia]). Nationally and internationally, RAM is recognised for its successful humanitarian work.

In this edition, we will include local and international news. The recent RAM 2019 Conference report is included. We also include information on malaria in Australia to provide a perspective that malaria overseas is a threat to introducing malaria outbreak in Australia. An update is included on the D9640-Griffith University's malaria vaccine project. RAM exists to support malaria elimination in our partner countries. Thus, we bring you updates from our partner countries. An update is also provided on "RAM Global" (previously, REMaRAG) a Rotary Action Group that provides a critical platform to drive the international global agenda for malaria elimination, and eventual malaria eradication world-wide.

We hope you enjoy the news provided for you.

Rotarians can make a big difference in the quest to eradicate malaria. That's evident from your extraordinary work to end polio. The same dedication and leadership are needed to win the malaria fight.

Dr. Philip Welkhoff
Director, Malaria, Bill and Melinda Gates Foundation

RAM 2019 CONFERENCE



Our annual 2019 RAM Conference was held at the Ciloms Airport Lodge, Tullamarine, Victoria, on 24 - 25 August. It was a highly informative and motivational weekend with presentations from world renown Speakers who shared their research and expertise with Conference delegates.





[Click here for the 2019 Conference Report & Powerpoint Presentations](#)

Snapshots: Malaria in Australia

Malaria disease is caused by *Plasmodium* parasites that are transmitted to humans through the bite of infected female Anopheles mosquitoes. In Australia, Northern Territory (NT) achieved malaria-free certification in 1981.

Xavier La Canna ([ABC News 2019](#)) wrote an interesting article "Curious Darwin: Why is there no malaria in Australia's northern capital?". Anopheles mosquitoes are found in NT Australia and given the right conditions, malaria may re-establish in Australia. However, as explained by Professor Ric Price in the article, the chances of malaria resurgence is unlikely as imported malaria cases are managed effectively. A fascinating history on malaria in Australia can be found in the [Report of the Australian Malaria Register for 1992 and 1993](#).

Malaria Prevention Works

Since 2000, the core vector control methods to prevent malaria are the long-lasting insecticidal nets (LLINs) and indoor residual spraying (IRS). In 2015, LLINs were reported to have the most effect on preventing malaria with 69% of malaria cases averted due to the use of LLINs. For adequate community protection, at least 80% of homes in a specified target area must be sprayed. With such effectiveness, WHO refers to these vector controls as “critical life saving tools” ([WHO, 2017](#)).

Despite insecticide resistance, LLINs remain important and the mainstay of malaria prevention for communities in malaria endemic areas ([Kleinschmidt et al., Lancet, 2018](#)).

Benefits of Malaria Elimination

Report from Dr. Bruce Anderson, RAM Scientific Committee Coordinator.

In addition to the health, social and economic benefits of malaria elimination, eliminating malaria in Papua New Guinea (PNG) by 2030 can lead to over [7,000 lives saved, 3.86 million cases averted](#) and a 9:1 return on investment.

In Thailand, for each US\$1 spent on the country's malaria elimination strategy, there would return between US\$2 and US\$15, according to Thai and US researchers ([April 2019](#)).



RAM is an activity of Rotary Australia World Community Service (RAWCS) Ltd. and is governed by the [RAWCS Constitution](#)

RAM REGIONAL NEWS

Mirroring the RAWCS network, RAM has five Regions each managed by a

Regional RAM Supervisor (previously, known as Coordinator) (see RAWCS Constitution 2019). The RAWCS regions and their Rotary districts are listed as follows:

Southern Region has six Districts: 9780, 9790, 9800, 9810, 9820, 9830

Eastern Region has five Districts: 9650, 9670, 9675, 9700, 9710

Western Region has two districts: 9455 and 9465

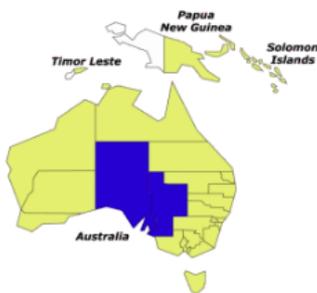
Northern Region has five districts: 9550, 9570, 9600, 9630, 9640.

This Region also includes Timor Leste is in D9550; and Solomon Islands and Papua New Guinea in 9600.

Central Region has two districts 9500 and 9520 that may be amalgamated.

In the near future, with the pending amalgamations of Rotary districts, there will be fewer and larger Rotary districts in the above Regions.

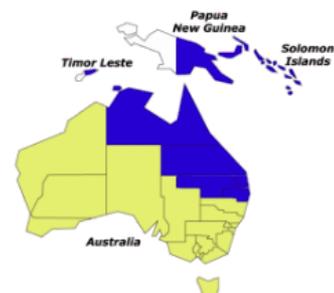
Five RAWCS Regions in Australia



[Central Region](#)
Email [Central Region](#)
(Rotary Districts 9500, 9520)



[Eastern Region](#)
Email [Eastern Region](#)
(Rotary Districts 9650, 9670, 9675, 9685, 9700, 9710)



[Northern Region](#)
Email [Northern Region](#)
(Rotary Districts 9550, 9570, 9600, 9630, 9640)



[Southern Region](#)
Email [Southern Region](#)



[Western Region](#)
Email [Western Region](#)
(Rotary Districts 9455, 9465)

REGIONAL PLANS

All RAM Regions are developing their regional plans that will feature how they will raise malaria awareness in Rotary districts and clubs, and gain support for

RAM's work in our partner countries: Papua New Guinea, Solomon Islands, Timor Leste, Vanuatu and West Timor (Indonesia). Regions are encouraged to identify projects that they can promote to clubs for implementation with technical support from RAM.

INVITATION: ADOPT A RAM PROJECT

Invitation to Rotary clubs & districts: Adopt a RAM project

Goal: To increase Rotarians' humanitarian impact on malaria elimination in our partner countries

Steps:

1. Rotary clubs /districts to contact RAM, to identify a RAM project.
2. Clubs to raise funds through own fund-raising efforts.
3. Several clubs can work together on the one project.
4. Clubs can apply to RAM for some of the funding earmarked for each country.
5. RAM will provide technical support to clubs and districts e.g. application for Rotary District and Global Grants and DFAT grants.

Contact your RAM representative or leave a message via our [RAM website](#)

NEWS: RAM PARTNER COUNTRIES

RAM Australia currently supports: Papua New Guinea (PNG); Solomon Islands; Timor Leste. This year, RAM will expand support to include Vanuatu and West Timor (Indonesia).

PAPUA NEW GUINEA

Today, with a population of [8.6](#) million, PNG's malaria incidence measured as annual parasite incidence (API) is around 60 per 1,000 population (RAM PNG, 2019).

Under the management of the Rotary Club of Port Moseby, Ron Seddon and Tim Freeman, RAM PNG continue to do a sterling job in support of the PNG Government. RAM PNG is the Principal Recipient of a Global Fund grant for malaria elimination in PNG. They work closely with the National Malaria Control Program.

With support from RAM PNG, the country experienced a reduction in malaria incidence of up to 70%. Sadly, over the last three years, PNG has increased number malaria cases with no clear indication of the underlying causes. The increase in malaria cases in PNG reflects

the global trend with two (2) million more cases documented between 2016 and 2017 ([WHO 2018](#)).

At the last RAM 2019 Conference, Project Manager Tim Freeman highlighted several factors that may have contributed to the increase in malaria incidence for example, changes in the biting habits of mosquitoes, and human social behaviours. In November 2018, the PNG Institute of Medical Research (IMR) in Kuriva in Central Province revealed:

- Many species of Anophelines are biting both inside and outside houses
- Most biting occur at night but significant biting in early hours of the evening before people go to bed
- Many people still not sleeping under mosquito nets
- Many people spending a lot of time outside.
- Most windows have no protection against mosquitoes.
- Bednets are not holding their insecticidal activities

Tim's Conference presentation is available on our [website](#).

SOLOMON ISLANDS

Solomon Islands has a population of 650,000 in 2018 ([World Bank 2019](#)). The malaria incidence varies across the country with API 285.2 in Central Islands Province and API 150.0 in Malaita (Malaria Program Review 2018).

Healthy Settings Program: Rotary Basic Hand Tools Against Malaria

The basic hand tools program is a component of the Health Village program in Solomon Islands. Rotarians Against Malaria (RAM) in Australia and in Solomon Islands donate basic hand tools to selected villages, to keep the villages clean and free of mosquitoes.

In April 2019, a small RAM Australia team visited Solomon Islands to collect information for a DFAT grant application. One of the team members, Tim Freeman (RAM PNG), noted that Western, Choisul and Isobel provinces that previously had high malaria case incidence were successful in reducing the number malaria cases. Their success could be related to their successful Health Settings programme.

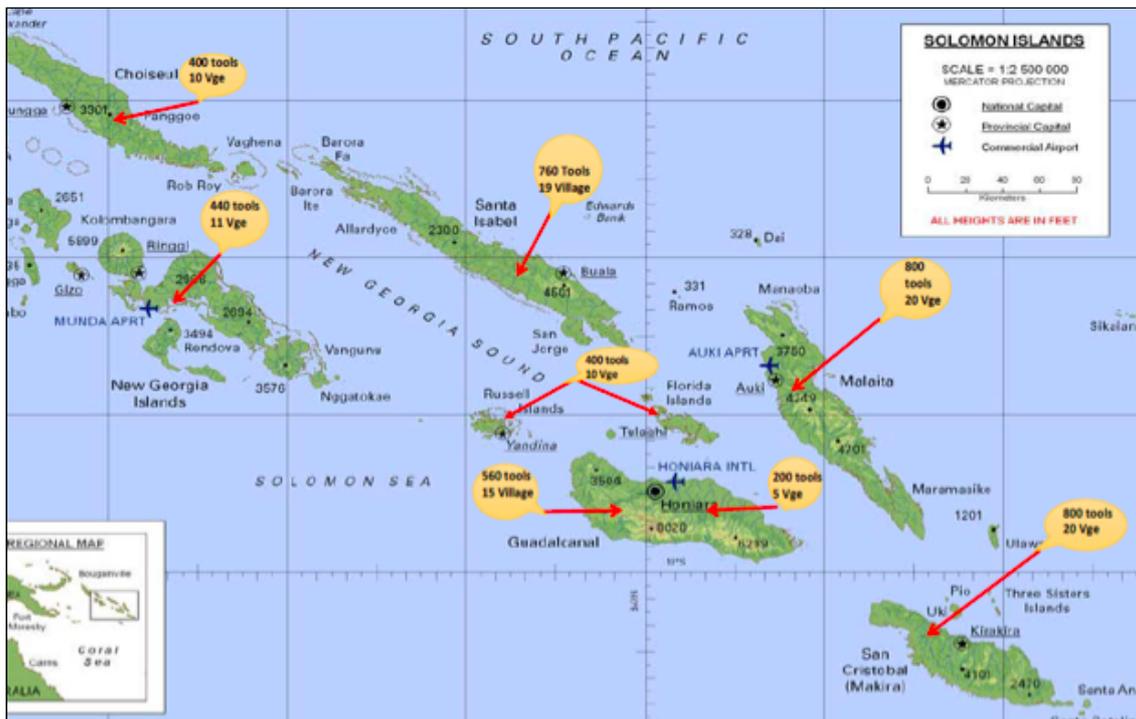
Similar to the findings in Western, Choisul and Isobel provinces, Freeman (2019) reported that in Bougainville province (PNG) where the Healthy Islands programme (known as Health Settings programme in Solomon Islands) was implemented, the Bougainville province experienced fewer malaria cases than other islands.

Freeman's analysis highlights a possible relationship between the Healthy Islands program and the reduction of malaria cases in locations where the

program was implemented.

The map below displays the number of tools and villages in the Basic Hand Tools Against Malaria program supported by RAM Australia and RAM Solomon Islands.

NB: The map can be enlarged by using the "zoom in" function on your computer.



TIMOR LESTE

Timor Leste is in Rotary district 9550. RAM has supported Timor Leste since 2006. Malaria incidence measured as annual parasite incidence (API) was then 220 per 1,000 population. By 2019, RAM has provided 125,000 nets to assist malaria elimination by the Timor Leste Government's National Malaria Program (NMP). Under the leadership of the NMP and WHO Technical Consultant, Timor Leste has achieved a API of 0.006 with 8 imported malaria cases in 2019 (Dr. Manel 2019). There has been no indigenous malaria for the last three years and Timor Leste is likely to qualify for WHO malaria elimination certification in 2020. An amazing achievement for Timor Leste to have API of 220 in 2006 and reach API of 0.006 in 2019, in a period of 13 years.

Rotary Global Grant #GG1866289 for malaria elimination in Timor Leste is a project of the RC of North Hobart, D9830 and managed in partnership with RAM. A total of USD251,334 funding. The beneficiaries are: pregnant Women

and children under 5 years old. The project has completed 10 months of 18 months project life. To date, the project has shipped to Timor Leste: 40,000 long-lasting insecticidal nets (LLINs) (Sumitomo Olyset net) and 80 Hudson Sprayers (model 67322WD). All items met World Health Organisation (WHO) approvals. Most of the funds are now expended. The last activity to fund is the midwives training in the delivery of LLINs to pregnant women.

Planned visit in December 2019: RAM will conduct a monitoring visit in the first two weeks in December 2019, to coincide with the Rotary Foundation's project audit visit.



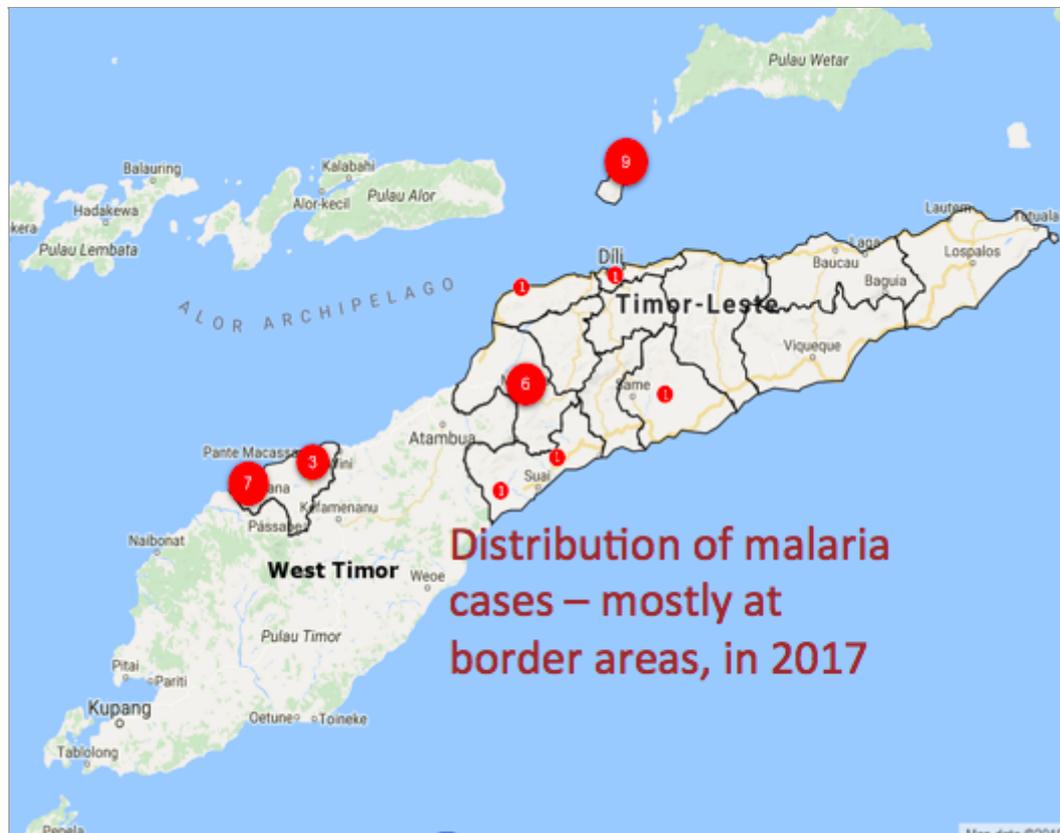
Malaria elimination needs in and beyond 2020

Protecting pregnant women with LLINs is a key goal for NMP. The NMP has requested support from RAM for 40,000 to 43,000 LLINs each year from 2021 to 2025. By 2020, Timor Leste would have achieved zero indigenous malaria. In the post certification period, it is critical to prevent malaria in the population. Thus, important to protect vulnerable population groups (pregnant women and children) for a further five years.

Reducing imported cases of malaria is high on NMP's agenda, as Timor Leste works towards WHO malaria elimination certification by 2020 (i.e. zero indigenous malaria by 2020). More than 95% of malaria cases were imported in the border areas from Indonesia. The infections were mainly from travellers and some were from local fishermen who fish off neighbouring Indonesian islands ([Dr. Merita, 2018](#)). As reported in the RAM June 2019 Newsletter, Timor Leste, RAM initiated dialogue on cross border collaboration between West Timor and

Timor Leste, at the RAM 2018 Conference.

Your support for Timor Leste: Timor Leste is close to the finishing line to achieving zero indigenous malaria. Thus, RAM invites Rotary D9550 and other Rotary clubs and districts to adopt a project in Timor Leste. Zero malaria has benefits for the country's economic and social stability, and peace.



VANUATU

In 2004, RAM was one of many RAWCS projects who participated in the Eastern Region RAWCS initiatives to bring support to Tafea province, Vanuatu, following devastations by cyclones. In 2019, at the RAM Conference in Melbourne, Director Len Tarivonda (Director Public Health, MoH) welcomed RAM to support Vanuatu in its malaria elimination efforts,

Vanuatu's population is 290,000 in 2018 ([World Bank, 2019](#)). The country's API is 2.2 in 2018. Tafea province has API of 0.08 and was declared malaria free in November 2017. However, malaria remains problematic in Malampa API 5.1 and Sanma API 3.8. Malaria in these two locations account for 96% of total malaria cases in Vanuatu ([Malaria Program Review, 2018](#)).

Director Len Tarivonda and Dr. Tessa Knox (WHO Technical Consultant) addressed the RAM 2019 Conference delegates in regards the malaria situation in Vanuatu. Relapsing cases of *vivax*-malaria is a major challenge to malaria

elimination in the country. Other challenges included financial, administrative and health systems issues. A key needs highlighted were long-lasting insecticidal nets (LLINs) and sprayers for indoor residual spraying (IRS). Vanuatu aims for WHO malaria elimination certification by 2026.

Support for Vanuatu: RAM received a proposal "Ending Malaria in Vanuatu – for Good" that highlighted three (3) priority projects for our support:

1. Fill the net gap in selected health zones and enable vector control response to prevent re-establishment of malaria
2. Target indoor residual spraying in hotspots of malaria transmission
3. Conduct nationwide advocacy campaign for malaria elimination

Rotary clubs and districts are encouraged to adopt a RAM project in Vanuatu.



WEST TIMOR (INDONESIA)

West Timor is located in Nusa Tenggara Timur (NTT) province, Indonesia, Rotary District 3420. It has a population of [5.3](#) in 2016 and is one of the poorest provinces in Indonesia.

Forty-eight per cent (48%) of Indonesia is endemic for malaria. Many parts of Indonesia are free of malaria transmission for example, Jakarta and Bali. However, in 2017, malaria was endemic in most parts of NTT province with API 5.39 and three deaths. Also in 2017, 15% of malaria cases in Indonesia were from NTT. With political will in the province, NTT hopes to achieve malaria elimination by 2023.

The districts at the borders with Timor Leste are: Belu, Malaka and Timor Tengah Utara districts. Belu and Malaka districts had as many as 2,256 cases in 2017, and contributed to 7% of total malaria cases in NTT Province. Data collected in 2017 revealed that 0,6% (347) of pregnant women screened were positive for malaria. The province has a strong participatory learning in action (PLA) program that engages communities in malaria elimination (see photos below) ([Dr. Theresia Ralo, 2018](#)).

NTT province aims to eliminate malaria per island through coordination between the districts ([Dr. Theresia Ralo, 2018](#)).

In line with our support for Timor Island, RAM will support malaria elimination at three (3) border districts in West Timor. Accelerating malaria elimination at the border districts will have flow-on effects that will benefit both West Timor and its neighbour Timor Leste. The stakes are higher for Timor Leste, as it works towards WHO malaria elimination by 2020.

Support for West Timor: RAM and Western Region (WR) RAM Supervisor will lead a small RAM team of self-funded volunteers to conduct a community needs assessment in West Timor. In NTT province, the Rotary Club of Kupang Timor Raya, and the Malaria Control and Prevention Program has pledged support for this visit. The Rotary Club of North Hobart D9830 may also participate by providing expertise and funding data collection - if successful in its Rotary District Grant application. Following the visit, RAM and WR RAM will identify support for West Timor.

Rotarians interested to support West Timor are encouraged to contact us on our [website](#).



1000
student
trained
for Larvae
Control

MALARIA VACCINE

In simple terms, a malaria vaccine works by triggering the release of antibodies

and priming killer cells that can protect the body against future attacks by malaria parasites e.g. *Plasmodium falciparum* (*Pf*). Read RAM Scientific Committee Coordinator Dr. Bruce Anderson's discussion paper on malaria vaccine ([Anderson, 2018](#)).

There are more than [20 malaria vaccine](#) candidates being researched.

RTS, S Vaccine is most advanced vaccine available for malaria *Pf* and this is only for children of certain age groups. It is a subunit vaccine. The vaccine efficacy is only 40%. ([van den Berg et al., 2019](#)).

Malaria Vaccine Project, Australia

The Malaria Vaccine Project (MVP) is raising funds for the development of Professor Michael Good's PlasProtect® whole virus vaccine. The funds raised now total \$1.1m. The clinical trials are proceeding with a second batch of candidates and the results are very promising. Clinical trials in a malaria endemic country may commence in end of 2020. [Read Newsletter No. 5](#).

MALARIA ROTARY ACTION GROUP



REMaRAG
Rotarians Eliminating Malaria a Rotary Action Group

The Eliminating Malaria a Rotary Action Group (REMaRAG) was re-formed at the last Rotary International Convention, Hamburg, Germany. Soon, REMaRAG will be known as **Rotarians Against Malaria Global (RAM Global)**.

MISSION of RAM Global is to engage and support Rotarians in the Global effort to control and eliminate malaria.

One of the goals for this Action Group is to be a central point for all Rotarians to access for resources on malaria disease and its control and elimination.

[Click here to join RAM Global: A Malaria Rotary Action Group](#)

MALARIA ROTARIAN GROUPS



MISSION: To ignite an international Rotarian Campaign for the Global Eradication of Malaria. Funded by Bill Gates and Rotary Global Grant, RMP is a major player in malaria elimination in Zambia.



REMIT - Rotarians Eliminating Malaria in Tanzania - is a group based in England. REMIT aims to raise funds to provide chemically impregnated nets, insecticides and medicines. Funding is available for education on and awareness of malaria disease.

RESOURCES

**MALARIA
MUST
DIE** *So millions
can live*



A GLOBAL STRATEGY

The WHO *Global Technical Strategy for Malaria 2016-2030* was adopted by the World Health Assembly in May 2015 following an extensive consultative process with more than 400 experts from 70 Member States. It provides a framework for all countries working to control and eliminate malaria,

with approaches that are flexible and tailored to local contexts.

The Strategy sets ambitious but attainable targets for 2030, with milestones along the way to track progress. The near-term milestones for 2020 include:

REDUCING
MALARIA CASE
INCIDENCE
BY AT LEAST

40%

REDUCING
MALARIA
MORTALITY
RATES BY AT
LEAST

40%

ELIMINATING
MALARIA
IN AT LEAST

10
COUNTRIES

PREVENTING
RE-ESTABLISHMENT
OF MALARIA
IN ALL COUNTRIES
THAT ARE
**MALARIA
FREE**

MALARIA PREVENTION WORKS

let's close the gap



 World Health Organization

UPCOMING EVENTS

[RAM to Ride](#)

Devonport, TAS

FUND RAISE your fees

**Join us for a 60km cycling event to help support
Rotarians Against Malaria**

When: Sunday 13 October 2019

Where: Starting and finishing Devonport (precise location TBA)

All ages and levels welcome!

Relay and composite teams welcome.

OR Join us for a morning of meal preparation by renowned chefs!



[Register Now](#)



**Malaria Symposium,
RI Convention, Honolulu, Hawaii
5 June, 2020**

Rotarian Malaria Action Group (RAM) GLOBAL and Rotarian Malaria Partners (RMP) are proud to announce their first anti-malaria symposium.

Learn how Rotarians are helping to eliminate malaria world-wide. Hear about the latest advances in this war against the greatest killer since mankind evolved.

Early Bird fee of USD\$60 per person is registered before 31 December.

More information to follow.

VACANCIES

If you have the skills and wish to help strengthen this great humanitarian organisation, please apply for the following positions:

1. Deputy RAM Manager
2. Public Relations & Media Coordinator

[Contact us via RAM website.](#)

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