

Australia-China-Papua New Guinea Pilot Cooperation on Malaria Control Project Newsletter



Editor's Note

Issue 1 April, 2017

Welcome to the first edition of our Project Newsletter. We are delighted to be able to share with you some of the successes achieved through our trilateral cooperation during the first year of implementation. We bring this newsletter to you at an important time, as we come together to recognize World Malaria Day on April 25. This year's theme is "End Malaria For Good" and shines a spotlight on the global effort to eliminate malaria, a major priority for our region.

While PNG still accounts for over three-quarters of all malaria cases in the Western Pacific region, the country has made significant progress in reducing the burden of malaria in recent years. In 2009, one in five people got sick from malaria, but by 2014, this number had dropped to one in twenty. Over the same period, deaths attributed to malaria declined by 70%. However, significant challenges remain. Nearly 40% of all patients who attend a health facility with symptoms of malaria are not properly diagnosed, for example through rapid test or microscopy. And for those patients who are found to have malaria, drugs are not always available for their treatment. In order to sustain the past gains achieved by PNG's national

malaria control program and prevent disease resurgence, it is now more important than ever to focus our efforts on ensuring all Papua New Guineans have access to treated bed-nets, and to timely diagnosis and treatment, amongst other critical malaria control measures.

The stories and interviews in this newsletter recognize the contributions made by the governments of PNG, China and Australia in accelerating PNG's malaria control efforts through our Project. Through this work, our trilateral cooperation partnership is also contributing to the global dream of being the generation that ends malaria a reality, or as we say here in PNG "yumi rausim malaria!"

Want to know more about the Australia-China-Papua New Guinea Pilot Cooperation on Malaria Control Project? You can obtain our Project Factsheet by emailing our Project Manager Sarah MacCana on sarah.maccana@hhisp.org



ANGAU Hospital Emergency Physician Dr Alex Peawi (left) reviews severe malaria patient Laiwas Botif, together with PNG's Chief Physician Dr Lloyd Ipai (center) and Dr Liu Hui (laboratory specialist)

Welcome Statement from the Government of Papua New Guinea

Our Government is proud of the progress we have achieved to date in our national malaria control program, and many of these successes would not be possible without our strong partnerships. We extend gratitude to all partners involved in the Trilateral Malaria Project, as we look back on a successful year of implementation during 2016. We have particularly enjoyed welcoming the first Chinese experts to work alongside PNG laboratory scientists at the Central Public Health Laboratory. Our collaboration with the Australian Army Malaria Institute, which spans microscopy assessment through to molecular diagnostics, is also a special highlight.



Laboratory specialists Dr Liu Hui and Dr Li Jin visit the Hiri Moale festival in Port Moresby

A key question being asked by PNG's leaders is this: will we continue to simply control malaria into the foreseeable future? Or can we renew our efforts and resourcing to work with our partners and "catch the wave" of malaria elimination – a key priority which features prominently on global and regional health security agendas. Around the world, governments are mobilizing themselves to rid the world of malaria for good. The Asia-Pacific region has a unified

approach to elimination through the Asia-Pacific Malaria Elimination Network (of which PNG is the 18th country member). The network connects PNG with a broad range of regional and global malaria partners to develop best practices in a united drive towards regional elimination.

It is crucial for PNG to learn from our regional partners' own unique elimination efforts, and this makes our partnership with China valuable at so many levels. Our recent visit to Beijing, China in February this year included meetings with a range of central Chinese agencies, as well as a tour of the Chinese Centre for Disease Control. The visit was a great example of how this Project is bringing China's journey from malaria control to elimination to life so that PNG policy and programming decision-makers can determine relevant lessons for the PNG context across all areas of public health – not just malaria.

Welcome Statement from the Government of the People's Republic of China

This trilateral development cooperation project is the first of its kind for our three governments. Since the project's launch in January 2016, China's Ministry of Commerce, National Health and Family Planning Commission, and National Institute of Parasitic Diseases (NIPD) have built friendly and efficient relations with Australian and PNG colleagues. Many activities have already been carried out by Chinese agencies in cooperation with Australia and PNG partners to strengthen malaria diagnosis in the PNG health services. A special highlight from our first year of implementation was the opportunity to host PNG's leading clinicians, researchers and epidemiologists at NIPD's 3rd Symposium on Surveillance Response Systems for Tropical Diseases Elimination in Shanghai.

More recently, the Government of China was delighted to welcome senior representatives from Australia and PNG to Beijing in February this year for convening of the successful annual Joint Project Working Group (JPWG) meeting. NIPD is now looking forward to hosting researchers from the PNG Institute of Medical Research (PNG IMR) for further collaboration at the NIPD research laboratory in Shanghai later this year.



Joint Project Working Group members and their staff in Beijing, China.

Welcome Statement from the Government of Australia

Australia is one of Papua New Guinea's closest neighbors and its largest aid donor partner supporting development in key sectors including health since 1975. Through this trilateral cooperation project, Australia has invested \$A four million and contributed management, clinical and laboratory skills. Australia sees this project as not just addressing malaria but developing mutual cooperation with PNG and China that will leverage each partners' strengths to contribute to development outcomes for PNG's people and potentially new partnership in the region.

The project supports PNG's health sector and demonstrates newly built capacity and partnership between health partners; up-scaling PNG's workforce for malaria and technical capacity; and strengthening health planning and financing systems.

Learning through doing has set a strong base for this project in the first twelve months. There have been achievements made in training and standards; institutional linkages; and people-to-people links already and we look forward to the coming year which will see an escalation in technical transfer, more training and assessment, technical assistance from China

coming to PNG, and roll out of more disease surveillance work around the four sites across the country. We welcome partners and readers to this newsletter which captures the spirit of our trilateral partnership and relationship and highlights major progress made under this project.



Dr Paison Dakulala, PNG Deputy Secretary for Health (center) and Mr Benedict David, Minister Counselor for the Australian High Commission, Port Moresby meet Dr Hu Hong, Deputy Director, Office of International Cooperation, CDC (left)

AMI supports PNG's malaria microscopists to achieve WHO certification

Since the Project started, 24 microscopists representing all four regions of PNG have received WHO certification by Lt Col Ken Lilly, WHO Assessor from the Australian Army Malaria Institute (AMI). The WHO "External Competency Assessment for Malaria Microscopy" (ECAMM) course is designed to certify laboratory staff as competent, and able to provide training and supervision to other microscopists.

Matthew Kaupa, at 56 yrs, and Deborah Ruffunduo, at 24 yrs, were the oldest and youngest participants in last year's ECAMM courses, hosted by PNG's Central Public Health Laboratory. Together they both achieved certification as Level One malaria microscopists (the highest rating possible). "I previously made mistakes in species identification of between 20-30%" said Deborah. "Now with this training I score more than 90% accuracy in identifying parasite species, which is very important to ensure patients receive correct treatment courses."



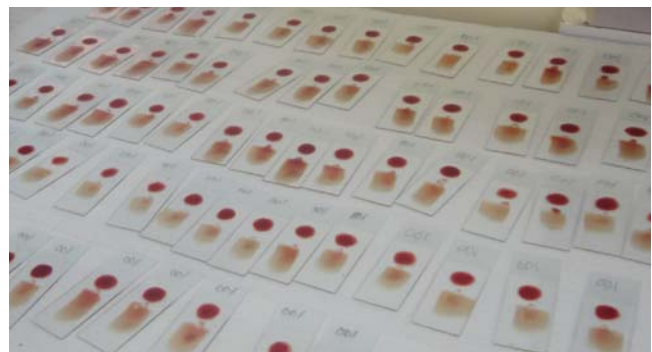
PNG's youngest ECAMM participant Deborah Ruffunduo receives her certificate from WHO Assessor Ken Lilly

PNG's first ever malaria slide bank



Laboratory scientist Ernest Velemu prepares samples for the malaria slide bank (below)

For all pathologists, malaria microscopy requires significant investment in continuous training and professional development. Unlike some other pathology tests, malaria microscopy involves complex diagnostic skills with the ability to recognize and differentiate four different parasite species and make accurate parasite density calculations. A malaria slide bank (a repository of high quality, validated malaria blood film) is an important tool which can be used in graduate and refresher training for microscopists, and ongoing proficiency testing. With support from two Chinese laboratory specialists, Dr Liu Hui from the Yunnan Institute of Parasitic Disease, and Dr Li Jin from the Shandong Institute of Parasitic Disease, PNG's Central Public Health Laboratory has commenced sample collection to establish PNG's first ever malaria slide bank.



Linking data to decision-making: PNG IMR's malaria sentinel surveillance sites

As a result of the support provided by the Trilateral Malaria Project, PNG IMR has been able to continue operation of its four epidemiologically distinct surveillance sites representing each region of PNG. Each site is based at a health facility, where PNG IMR stations an additional research nurse to observe diagnosis and treatment of suspected malaria patients, and record relevant information. The sites allow PNG IMR to collect and, in collaboration with Project partners, analyze high quality longitudinal background data, to inform the PNG government's national malaria policy and program decision-making. In addition to ongoing collection of surveillance data, PNG IMR will also commence the investigation of additional operational research topics at the sentinel sites this year. These investigation topics include the comparison of alternative WHO-approved malaria rapid tests with the current Carestart test in use in PNG, and the trial of G6PD point-of-care screening for effective treatment of Plasmodium vivax with primaquine.



PNG IMR research nurse Ms Naebo Oren works in the East Cape Health Center in Milne Bay Province. When patients with fever visit the center, Nurse Oren performs a malaria test and records the result alongside additional information regarding their signs and symptoms and final treatment.

Trilateral cooperation: further reading



Since commencing our trilateral cooperation relationship (the first of its kind between our three countries), our partners have been fortunate to gain first hand experience of the benefits which arise from this innovative form of South-South cooperation. Of course, this form of partnership also brings with it some challenges, all of which offer practical lessons learned for both our specific partnership, as well the broader international development community.

For readers who are interested in learning more about trilateral cooperation, and specifically initiatives which are supported by China (who is increasingly piloting this type of cooperation), we are delighted to share with you the United Nations Development Programme's (UNDP) newly released discussion paper titled "Trilateral Cooperation with China: Sharing China's Development Experience through Innovative Partnerships".

This discussion paper provides analysis and a preliminary mapping of China's trilateral partnerships with a number of bilateral and multilateral partners and identifies major common benefits, challenges and lessons learned, based on the experience of UNDP and a number of other development partners. It outlines ways forward and provides three concrete recommendations to development partners for their future trilateral cooperation with China. The full discussion paper can be accessed online at: <http://www.cn.undp.org/content/china/en/home/library/south-south-cooperation/trilateral-cooperation-with-china-.html>

Meet the team!

One of the best things about using a trilateral partnerships approach is the opportunity for mutual learning and knowledge-exchange. Working together through a multidisciplinary, international team means our partners are able to harness global expertise and tailor it to inform locally-relevant solutions. Each edition, our newsletter will feature an interview with a team member from our Project. For our first edition, we are delighted to share with you highlights from our conversation with Ms Tamarah Koleala, Scientific Officer with the PNG Institute of Medical Research.

“My name is Tamarah, and I’ve been working with the PNG Institute of Medical Research since 2011. Prior to that, I completed my Bachelor of Science (Honours) at the University of PNG, and was recently fortunate to receive an Australia Awards scholarship to undertake a Master of Biotechnology (Clinical Microbiology) at the RMIT University in Melbourne, which I completed last year.

Through my work with PNG IMR, I have been involved in the Trilateral Malaria Project since the start of this year. I am responsible for molecular assays for samples collected from our Project’s operational research activities undertaken at the four malaria surveillance sentinel sites around PNG. The Trilateral Malaria Project has also given me the opportunity to share my molecular diagnostics skills and knowledge with another Papua New Guinean institution. CPHL is in the process of establishing



Tamarah Koleala (left) during her recent visit to CPHL to help establish molecular diagnosis for malaria.

molecular diagnostics for malaria for the first time, and I’ve just spent two weeks with their staff, and Dr Li Jin and Dr Liu Hui, to set up their malaria PCR laboratory so that CPHL can do this work in-house, instead of sending samples overseas for analysis.

Personally, I have a research interest in improving malaria diagnosis in our country, and my Masters program was centered on clinical diagnosis of infectious diseases and research to enhance and support it. Being involved in the Trilateral Malaria Project allows me to continue this work, which is something I am very excited about.”

The Australia-China-Papua New Guinea Pilot Cooperation on Malaria Control Project is a partnership between:

National Department of Health
Government of Papua New Guinea

Ministry of Commerce
National Health and Family Planning Commission
The People’s Republic of China

Department of Foreign Affairs and Trade
Australian Government

