PAPUA NEW GUINEA INSTITUTE OF MEDICAL RESEARCH

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PRESS STATEMENT

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MALARIA: PREVENTING RELAPSES IN PNG CHILDREN

Studies carried out by the PNG Institute of Medical Research (PNGIMR) has shown children aged 3 years or younger have frequent malaria attacks from the malaria parasite, *Plasmodium vivax (P.vivax)*. In a recent study, where children were given primaquine to remove the liver stages of *P.vivax* confirmed that relapses are responsible for most of this malaria attacks.

"*P.vivax* is the second most common human malaria parasite and the most difficult to treat with the current recommended treatment," said Dr Inoni Betuela, head of IMR's Vector Borne Diseases Unit.

"A child that has had *P.vivax* malaria may continue to have relapses, as their liver becomes infected with sleeping parasites (hypnozoites)," Dr Betuela said.

"Our study showed that treatment with two drugs (primaquine plus artesunate) simultaneously reduced by around one third (38 per cent) the incidence of *P.vivax* malaria in PNG children five years and under during nine months of follow-up. The effect of primaquine treatment in the first 3 months of follow was more pronounced amounting to 58% reduction in the incidence of *P.vivax* malaria

"Intriguingly, the Artestunate plus Primaquine (ART-PQ) treatment that was so effective on *P.vivax*, also significantly reduced the incidence of *P. falciparum*, the most common form of malaria, although it did not significantly delay time to the first *P. falciparum* infection.

Dr Betuela said that while the phenomenon of relapsing *P.vivax* infection had been studied in travellers and patients in low endemic areas (where malaria is less likely to occur), the IMR study was the first looking at people in high risk countries such as PNG.

The data confirmed that *P. vivax* relapses from hypnozoites contribute significantly to the high burden of *P. vivax* infection and disease in young PNG children living in high risk areas, Dr Betuela said.

Symposium Paper: Relapses are contributing significantly to risk of P. vivax infection and disease in Papua New Guinean children 1-5 years of age.

Contributors: Betuela I[1], Rosanas A[1], Kiniboro B[1], Stanisic D[2], Somol L[1], Lezzari E[3], Bassat Q[3], del Portillo H[3], Siba P[1], Alonso P[3], Mueller I[2,3].

Institutions: [1]Papua New Guinea Institute of Medical Research, [2] Walter and Eliza Hall Institute, Melbourne, [3] Centre de Recerca en Salut Internacional de Barcelona (CRESIB).

Media contacts: Geraldine Vilakiva – phone: (+675) 532 2800 or (+675) 7205 6686
Email: geraldine.vilakiva@pngimr.org.pg Or phone Wendy Levy - +675-7201 7264