

Tracing resistance to the antimalarial drug sulfadoxine across Africa

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In research published in *PLoS Medicine*, Cally Roper of the London School of Hygiene & Tropical Medicine and colleagues use genetic analyses to trace the emergence and dispersal of drug-resistant *Plasmodium falciparum* malaria in Africa.

They find that resistance to the antimalarial drug sulfadoxine has emerged independently in multiple sites in Africa during the past 10-20 years, and that the molecular basis of resistance differs between east and west Africa. Given the potential for different levels of drug resistance associated with these different parasite strains, the results suggest that coordinated malaria control campaigns across socioeconomically linked areas in Africa may reduce the African malaria burden more effectively than campaigns that are confined to national territories.

In a related expert commentary on the new study, Tim Anderson of the Southwest Foundation for Biomedical Research, who was not involved in the study, notes: "this unusually large data set provides an extraordinarily fine-grained view of the spread of [resistance](#) alleles across Africa."

More information: Pearce RJ, Pota H, Evehe M-SB, Ba^ E-H, Mombona G, et al. (2009) Multiple Origins and Regional Dispersal of Resistant dhps in African *Plasmodium falciparum* [Malaria](#). *PLoS Med* 6(4): e1000055. doi:10.1371/journal.pmed.1000055, [medicine.plosjournals.org/perl ... journal.pmed.1000055](http://medicine.plosjournals.org/perl...journal.pmed.1000055)

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