

Implication of Pyrethroid Insecticides resistance on the usage of long lasting insecticidal nets in Nigeria

A new study conducted by scientists at the Nigeria Institute of Medical Research, Yaba, Lagos, has revealed that mosquitoes in 18 states have developed resistance to insecticide nets. The outcome of the study, which was presented in NIMR on Tuesday, identified mosquito resistance to insecticides as a major threat to the eradication of malaria in Nigeria by 2030.

The lead researcher and the Deputy Director & Head, Public Health Department, NIMR, Dr. Sam Awolola, said insecticide resistance were detected in Jigawa, Katsina, Kebbi, Sokoto, Zamfara, Benue, Kwara, Nasarawa, Niger, Plateau, Anambra , Enugu, Rivers, Lagos, Ogun, Ondo, Osun and Oyo states. According to the malarialogist, Lagos, Ogun and Niger states recorded the highest incidence of resistance.

Nigeria has distributed over 182 million long - lasting insecticide - treated nets since 2003 till date. Awolola said the result of the study meant that Nigeria may record a sharp increase in malaria deaths in the 18 states where mosquitoes had developed resistance to these treated nets without quick intervention. “Most of the insecticide products used in malaria control are also being used in agricultural sector in Nigeria. This over - saturation is a major source of resistance”.

The Director-General of NIMR, Prof. Babatunde Salako, warned that the progress made in malaria control in the country was under threat due to the discovery. “ There is now clear evidence as insecticide resistance has been confirmed in at least 20 states across Nigeria. There is also a gap in the availability of resistant data in 14 states, which requires urgent attention. “There is need to urgently explore alternative non - chemical base control measures”. He stated that the trend could lead to public health crisis, as insecticide resistance could quickly overpower the current portfolio of vector control tools being used in the country.

Prof. Salako said government needs to embrace multiple vector control interventions. “The government as a matter of urgency must designate NIMR as a hub for vector surveillance and insecticide resistance mapping in Nigeria. It must empower scientists to explore the use of alternative mosquito control measures such as the “sterile insect techniques” and “genetically modified mosquitoes” for malaria control, he added.