

**GOVERNMENT OF INDIA
HEALTH AND FAMILY WELFARE
LOK SABHA**

UNSTARRED QUESTION NO:4704

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RESEARCH TO CONTROL VECTOR BORNE DISEASES

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Will the Minister of HEALTH AND FAMILY WELFARE be pleased to state:

(a) whether the Government has taken up any research project to control vectorborne diseases including Malaria and Japanese Encephalitis (JE) and develop new and affordable drugs for their treatment in the country;

(b) if so, the details thereof alongwith the achievements made as a result thereof;

(c) whether the Government has collaborated with certain countries and signed any Memorandum of Understanding (MoU) for the purpose; and

(d) if so, the details thereof?

Answer

THE MINISTER OF HEALTH AND FAMILY WELFARE (SHRI GHULAM NABIAZAD)

(a) & (b): Malaria The National Institute of Malaria Research (NIMR) is the principle

ICMR Institute conducting research in malaria epidemiology, parasite biology and vector control strategies. The Institute collaborates with the Directorate of National Vector Borne Disease Control Programme (NVBDCP) for carrying out operational research. A significant research achievement was the therapeutic efficacy studies which provided evidence for swit chover to artemisinin-combination therapies for P. falciparum malaria. Phase- III trial of new combination of artemisinin antimalarials namely Artesunate + Amodiaquine , Artesun ate+Mefloquine, Arterolane Maleate+Piperaquine , Dihydroartemisinin+Piperaquine, Artesun ate +Pyronaridine combination have been done. Among these following have been registered with Drugs Controller General of India (DCGI) namely Artesunate + Amodiaquine; Artesuna te+Mefloquine and Arterolane Maleate+Piperaquine.

The NIMR has also developed a national network of sentinel sites for monitoring anti-mala rial drug resistance, which now suggests low efficacy of chloroquine in treatment of Pf malaria. NIMR has also successfully evaluated non invasive methods for malaria diagnosis using saliva (multiplex PCR based assay and LAMP); and filed a patent for immunodiagnostic reagent for the detection of P. vivax. Village wise Geographic Information System (GIS) mapping has been carried out for 27 problematic districts identified by National Vector Borne Disease Control Programme. Using PRECIS regional climate model, projection of tran smission windows of malaria by 2030 with emphasis on Himalayan, northeastern, coastal and Western Ghats was done. Disease burden studies for malaria were conducted by NIMR in 2008 and 10.03 million estimated cases by Fever Model was proposed in the study against 1.52 million reported cases, for the entire country. The Malaria Parasite Bank now has a colle ction of 1200 isolates of human Plasmodia.

In addition, the ICMR's Regional Medical Recsearch Centre for Tribals at Jabalpur has been conducting malaria research among tribal population of the country. The studies conducted to evaluate bivalent malaria kits showed 90% sensitivity and specificity for P. falcipa rum and marginally lesser for P. vivax, suggesting its potential role in epidemiological surveillance. The National Vector Borne Disease Control Programme has accepted the re commendations of Centre and has replaced the monovalent RDTs with bivalent kits for mala rial diagnosis in various states of India.

Japanese Encephalitis (JE):The ICMR has established a Field Unit of National Institute of Virology (NIV) at Gorakhpur (Uttar Pradesh) for carrying out research on Japanese Enceph alitis/Acute Encephalitis Syndrome and to provide diagnostic support to the State Govt. for investigations of outbreaks in the region. The NIV Unit at Gorakhpur compiles info rmation on AES/JE cases/deaths and provides a weekly line list of cases/deaths investig ated in BRD Medical College, Gorakhpur to State Govt. health authorities and to the Nat ional Vector Borne Disease Control Programme. The ICMR has established a Task Force on Acute Encephalitis Syndrome to undertake studies on aetiology and development of clini cal guidelines and management of JE/Acute encephalitis Syndrome. A research-cum- inter vention project on JE/AES is currently under development.

(c) & (d): No. Only Clinical Trial Agreements are singed with institutions in other countries after approval from Health Ministry Screening Committee (HMSC). The National Institute of Malaria Research has signed Clinical Trial Agreements with Public Private Partnership agencies like the Medicines for Malaria Venture (MMV), Drugs for Neglected Diseases Initiative (DNDi) after approval of Health Ministry's Screening Committee.