Failure to control mosquitoes has led to rare fever in India

New Delhi

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India is battling an unprecedented epidemic of chikungunya, an uncommon viral fever spread by mosquito bites.

It is thought that more than 1.3 million people across southern and central India have been infected. Meanwhile a simultaneous outbreak of dengue haemorrhagic fever, spread by the same species of mosquito, has affected 3600 people and killed 48 in several states.

Doctors say that India's weak mechanisms for disease surveillance and a steady deterioration of public health services across the country can be blamed for the resurgence of the two viral infections, transmitted by the *Aedes aegypti* mosquito.

The health ministry said earlier this week that more than 1.3 million people in 10 states had suspected chikungunya, of which typical symptoms are high fever and arthralgia, but that the infection had been serologically confirmed in only 1533 people. A health official said the ministry is also investigating the deaths of some patients with chikungunya who had developed secondary complications such as encephalitis and renal failure.

Some virologists have attributed the fast geographical spread of chikungunya within a period of 12 months to its sudden re-emergence in India after 32 years. "Much of India's population today has never been exposed to the virus," said a researcher at the National Institute of Virology. "But this virus also appears to grow unusually fast in the laboratory, and there might be other factors that have fuelled its spread. We don't know yet," she said.

Meanwhile, health officials are trying to allay panic over the latest outbreak of dengue, which the health ministry says has killed 20 people in New Delhi, including a medical student, as well as eight people in the state of Rajasthan and 20 in other states.

The national vector-borne disease control programme has recorded only 3407 cases of dengue so far this year, whereas the figures were 12 754 in 2003 and 11 985 last year. But doctors warn that the outbreak might last until winter, when the breeding rates of *Aedes aegypti* fall.

The capital has reported the largest outbreak of dengue, with more than 957 cases. Several thousands of patients with high fever have flocked to the All India Institute of Medical Sciences in New Delhi in recent weeks, straining its resources and prompting the health ministry to offer free diagnosis and treatment in 30 other hospitals.

Doctors have said that the resurgence of the infections highlights the health authorities' failure to pick up warning signals and civic authorities' inability to control mosquito breeding.

"Our public health system has broken down," said Kunchala Shyamprasad, a member of a government task force on medical education.

"This is the result of a focus on curative medicine and a steady shift away from preventive public health," Dr Shyamprasad said. "These outbreaks should serve as a wake-up call. India needs a public health act that will make it mandatory for states to address issues such as sanitation and prevention through regular mosquito surveillance," he said.

Pradeep Kumar Das, director of the Vector Control Research Centre in Pondicherry, said, "Instead of the disease surveillance mechanisms which detect infections only after they have established themselves in the community, we need a risk assessment system in place to pick up advance warnings."

Experts involved in insect control said that most states do not have entomologists to assess mosquito density. "Fumigation failed to wipe out mosquitoes, but entomologists have been virtually eliminated from India's public health system," said Subhash Hoti, deputy director at the centre.