

Cases Being Under-Reported, Says Study

Out of 7,200 suspected cases, only 730 were confirmed as dengue across the state in August this year. In Ahmedabad, out of 327 suspected cases, 200 were confirmed by the civic body. So, are dengue cases under-reported?

A study conducted by IIT Gandhinagar (IIT-Gn) in different wards has claimed that dengue cases in the city reflect under-reporting and do not represent population-based incidence of the fatal disease.

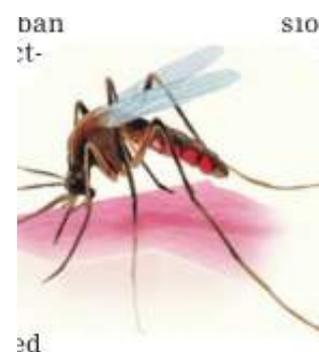
The study titled 'Modelling spread of dengue epidemic in urban areas from a spatial interacting networks perspective', was carried out between 2006 and 2012 by Prof Shivakumar Jolad at city and ward levels. He studied the correlation of rainfall patterns with mosquito density and dengue cases. Prof Jolad also looked at spatial patterns of dengue in different wards.

In 2012, there were 68 confirmed cases out of 365 samples tested in Ahmedabad district (excluding areas under Ahmedabad Municipal Corporation) and 1,233 positive cases out of 7,323 samples tested in AMC areas. In 2013, 121 cases were confirmed out of 582 samples in Ahmedabad district and 1,458 out of 10,188 samples in AMC areas.

The study found that transmission primarily arises due to mobility of vectors (mosquitoes) and humans. "Mosquitoes typically travel short distances during their lifespan. Based on statistical analysis, we've found in case of vector-borne diseases, human mobility can give early rise of epidemic and suppression of the epidemic when the infected person recovers. This is primary because people exposed to dengue virus move to areas where dengue patients have already recovered."

Prof Jolad said: "Regarding spatial spread, dengue was initially active in south east Ahmedabad areas such as Gomtipur, Dani Limbda, Vatva and Odhav. Gomtipur had the highest confirmed cases. But by 2012, the disease spread across the city. Giridhar Nagar initially had less patients, but by 2012, it had the highest number of confirmed cases at 37."

Dengue cases in Dani Limbda has been consistently high, with an annual average of 14 confirmed cases per one lakh people. On the western side of the Sabaramati, Vejalpur recorded the highest average of 14 cases per year.



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