

## Magnitude of Visceral Leishmaniasis (Kala-azar) in Bihar with Insights from Madhepura District

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*This paper aims to study the magnitude of Kala-azar (Visceral Leishmaniasis-VL) in Bihar with a case study of Madhepura District. A community based cross-sectional study was carried out in Madhepura District in November 2014. Suspected cases were tested with rK39 kit for VL. The incidence rate, case fatality rate and seasonality analysis was carried out. The new cases of VL were added to calculate the incidence. In the year 1997, Bihar recorded 2 VL cases per 10,000 population, which declined to 1 case in the year 2013. In 2016, there were 0.6 case per 10,000 population. Case fatality rate in Bihar was 1.6 in 1997 which reduced to 0.16 in 2013. Though the disease occurred across the year, the peak of VL was observed during the month of March, April and May. In Madhepura District, the incidence rate in last two years was calculated as 45 cases per 10,000 population which was higher than the official record. The study suggests strengthening the surveillance system and active case detection to cover all the cases of the disease.*

### I Introduction

Visceral Leishmaniasis (VL), a major public health problem, is endemic in 88 countries primarily in the tropical and sub-tropical regions. Approximately 0.2 to 0.4 million VL cases occur each year globally with an estimated 20,000 to 40,000 deaths (Alvar, *et. al.* 2012). World's 90 per cent cases of VL occur in India, Bangladesh, Nepal, Sudan, Brazil, Ethiopia (Alvar, *et. al.* 2012). India, Nepal and Bangladesh alone harbour an estimated 67 per cent of the global VL disease burden (Hotez, *et. al.* 2004). In India, the endemic has epicentre in Bihar and Jharkhand, with a mild spread in Uttar Pradesh and West Bengal. In all, 54

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