

# HIV burden in India may be much lower than official estimates

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Official figures might over-estimate the number of HIV-positive individuals in India. A new study published today in the open access journal *BMC Medicine* finds that the HIV burden is 2.5 times lower than official figures predict in the district of Guntur, in the south-Indian state of Andhra Pradesh. Andhra Pradesh has the highest HIV prevalence in India according to official estimates.

Lalit Dandona and colleagues from the Administrative Staff College of India collaborated with colleagues from the Nizam's Institute of Medical Sciences in Hyderabad, India, to estimate the number of HIV-positive individuals in the district of Guntur. Dandona et al. collected blood samples from 12,617 individuals who were representative of the population of Guntur.

The tested individuals were men and women, 15-49 years of age, from both urban and rural areas, and from all socio-economic groups, living in the district. Dandona et al. also estimated the number of HIV positive high-risk individuals such as sex workers and prisoners, which might have been under-represented in the sample. They extrapolated their results to the whole 15-49 year old population of Guntur and compared their results with the estimation of HIV burden for the district obtained using the official method based on sentinel surveillance in large public-sector hospitals.

Dandona et al.'s results show that the HIV prevalence for 15-49 year old adults in Guntur district, adjusted for age, sex and rural-urban

distribution of the population in the district is 1.72%, which increased slightly to 1.79% after adjusting for high-risk groups. This led to an estimate of 45,900 individuals with HIV in Guntur district, which is 2.5 times lower than the 112,600 estimate obtained with the official method.

The authors explain that the official sentinel surveillance-based method uses data from public antenatal clinics and sexually transmitted infection clinics, as well as some high-risk groups. Public hospitals included in the sentinel surveillance have disproportionately high rates of HIV due to referral of patients with HIV by private practitioners and because they are used disproportionately more by patients with a lower socioeconomic status, who in this study had a higher prevalence of HIV. Therefore, the current official method is leading to substantial over-estimations of the burden of HIV in India.

Source: BioMed Central

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