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## HIV/AIDS related deaths from three district hospitals of West Bengal: An observation

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### ABSTRACT

Data on HIV/AIDS incidence or deaths are limited in poor-resource country like India and non-existent in state of West Bengal. These data are essential for formulating policies for HIV intervention strategies to curb HIV epidemic. In present study, a descriptive analysis of all registered cases from three district hospitals (Maldah, North 24 Parganas and Darjeeling) during July 2006–December 2007 was conducted. HIV/AIDS related deaths were found to be higher in Darjeeling district compare to other two districts. A comprehensive and well-coordinated survey is needed to explore further HIV/AIDS mortality data in India for providing necessary information in developing HIV prevention programs.

## 1. Introduction

Dynamics of HIV epidemic in India and public health response have undergone many changes since its emergence in 1986. As per National AIDS Control Organization (NACO), the estimated number of people living with HIV/AIDS in India was 20.89 lakh and the HIV prevalence among adults aged 15–49 years was 0.27%<sup>[1–3]</sup> in 2012. India is estimated to have highest number of people living with HIV/AIDS till date after South Africa and Nigeria<sup>[1,4]</sup>. Till date, an estimated 1.48 lakh died of AIDS related causes in 2011 in India<sup>[5]</sup>. Although several studies on HIV prevalence have been reported from various states in India, studies on HIV/AIDS related mortality are scarce. These were due to widespread lack of accurate and complete recording of such events. Also HIV infected persons may die due to different immediate causes which are often recorded as primary cause of death although HIV/AIDS is the primary contributing cause. Such mortality data may be derived from

important sources like vital registration system or census in poor-resource country like India. However, these systems are either not in place in some states or not properly functional or updated.

To the best of our knowledge, this is the first study to report on HIV/AIDS related mortality from state of West Bengal. The data is collected from registers of three districts hospitals selected purposively in West Bengal (North 24 Parganas, Maldah and Darjeeling) during 2006–2007.

A descriptive analysis of register-based hospital data collected from above mentioned district hospitals was conducted. All cases that were registered in these hospitals during July 2006–December 2007 were considered for present analysis. A team of clinicians, district health experts, counseling and testing facility staff and HIV reference laboratory experts were involved in this study. All cases that were registered in these hospitals during July 2006 to December 2007 were considered for the present analysis. Information were collected on total number of hospital admissions, total number of deaths among these admissions, total number of suspected and confirmed cases of HIV and total number of HIV/AIDS related deaths from each of these hospitals. Blood samples of the suspected cases of HIV were sent to National HIV Reference

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**Table 1**

HIV/AIDS related mortality from three district hospitals in West Bengal, 2006–2007.

Observations	District hospital					
	Barasat		Maldah		Darjeeling	
	No.	%	No.	%	No.	%
Total number of admissions	68195	34.200	110070	55.210	21111	10.59
Total number of hospital deaths	1468	2.150	4135	3.760	986	4.67
Total number of suspected HIV cases	8	0.012	30	0.027	67	0.32
Total number of HIV positive cases	4	0.006	14	0.013	27	0.13
Total number of HIV/AIDS related death	1	0.068	1	0.024	12	1.22

Laboratory for confirmation employing Western Blot assay.

Information are gathered on total number of hospital admissions, total number of hospital deaths from all cases, total number of suspected and confirmed cases for HIV and total number of HIV/AIDS related deaths from each hospitals. Additionally, a confirmatory Western blot test is performed from each suspected HIV cases identified in these hospitals at NACO HIV Reference Laboratory as per the unlinked anonymous testing strategy<sup>[6]</sup>. Quality of data is ensured at every step of the collection process, management and analysis. The study is approved by the Institutional Ethics Committee of National Institute of Cholera and Enteric Diseases.

Table 1 presents frequency distribution of HIV/AIDS related observations from three district hospitals in West Bengal during July 2006–December 2007. Among the three surveyed district hospitals, Maldah district hospital (55.21%) reported the highest percentage of patient admissions followed by Barasat district hospital in North 24 Parganas (34.2%) and Darjeeling district (10.59%) hospital during July 2006–December 2007. Although Darjeeling district hospital showed least patient admission, the percentage of reported deaths from all causes is highest (4.67%) in Darjeeling compared to Maldah and North 24 Parganas. About 2.15% out of total admitted patients died in Barasat District hospital in North 24 Parganas and 3.76% deaths are from Maldah. Out of total 67 suspected cases, 27 cases were found to be positive for HIV in Darjeeling district hospital giving rise to a HIV percentage positivity of 0.13%, which is observed to be highest among three district hospitals. Percentage of HIV sero-positivity among those who attended Barasat district hospital was found to be lowest (0.006%) where as in Maldah it was 0.013%. In Darjeeling district hospital, 27 cases died due to HIV/AIDS related complications. Only one HIV/AIDS related death case is observed from Maldah and North 24 Parganas district hospital each.

Although it is certain there are many HIV/AIDS related deaths in West Bengal, it is very difficult to obtain the exact figure for adult deaths in India. A comprehensive and well-coordinated survey is needed to explore further HIV/AIDS mortality data in India for providing necessary information

in developing HIV prevention programs.

### Conflict of interest statement

We declare that we have no conflict of interest.

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