

Dengue Scourge in Delhi – What the Stakeholders Think, a Search for Perspective

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Abstract

Background and Objective: Amongst all the states and union territories in India, New Delhi shares the highest burden of the disease. Dengue infection is influenced by several socioeconomic factors, which involve roles, and responsibilities of various stakeholders of the society. In this study, we attempt to explore the awareness, knowledge and perception about dengue amongst relevant stakeholders.

Methodology: A sample of 30 stakeholders having different roles in management of dengue was taken all over from Delhi. In-depth, face-to-face, qualitative interviews were taken using an interview tool customized as per roles and responsibilities of the stakeholders.

Result: The study identified four key themes in management of dengue in Delhi. These themes were studied in depth and various challenges in dengue management were explored.

Keywords: Dengue, Delhi, Stakeholders, Qualitative interviews, Public factors, Private health centers, Government factors, Media

Introduction

India reported 111,880 cases in the year 2016.¹ Amongst all the states and union territories in India, New Delhi shares the highest burden of the disease with a total of 15,867 (15.8%) out of 99,913 cases in 2015.² Major epidemics were reported in the National Capital in the years 1967, 1970, 1982, 1996, 2003 and 2006.³⁻⁸ The 2006 outbreak also showed concurrent infection by all four serotypes making Delhi a hyper-endemic for the disease.⁸ There is endemicity of dengue in Delhi. Year after year, the disease burden continues to increase, putting more pressure on the health system and has led to loss of lives. Dengue infection is influenced by several socioeconomic factors, which involve roles, and responsibilities of various stakeholders of the society. In this study, we attempt to explore the awareness, knowledge and perception about dengue amongst relevant stakeholders.

Methodology

The study adopted a descriptive cross-sectional study design with qualitative in-depth face-to-face interviews of the stakeholders involved/knowledgeable of the 2016 dengue outbreak in Delhi. Ethical clearance for the study was obtained from the Institutional Ethics Committee, Kasturba Medical College and Kasturba Hospital, Manipal University (IEC 757/2016). Stakeholders involved were academicians/public health professionals, legislators, healthcare providers, vector control authority, opinion leaders from general public involved, media and non-government organizations (NGOs)

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working for management of communicable diseases. Total 30 interviews were done using a customized interview tool as per roles and responsibilities of the stakeholders. A few stakeholders for interviews were selected from areas where vector density and cases were the highest.⁹ Manual thematic analysis was done by identifying codes, categories and themes in MS Excel.

Results

“People build their ramps over the drains, blocking them off. Shopkeepers stack their goods by encroaching the roads, water stagnation takes place there. People are only worried about their personal agendas and not at all concerned about the society. So, this is a social problem.” (RWA President of a society in West Delhi)

“Somehow, in this, I would say, the private sector both the doctors, labs and the hospitals are not reading the rule (reporting and management of dengue) very well. Either they are not fully aware of it and require CMEs or there are motives which may not be in the best interest of the population.” (Dean of a prominent public health institute)

“Writing of slogans, pasting flyers outside hospitals, advertisement in newspapers – these things do not help a lot. There should be a massive campaign. Door-to-door visits are necessary explaining to people about prevention from dengue. Only advertising will not help. For this, these things are very important. The people-contact (Jan-sampark) movement is necessary. We need to take it at war level, like Sri Lanka did.” (Sr. Health Beat Correspondent from a prominent media house in Delhi)

“I have heard recordings in the radio by the mayor that they are doing a great work in cleaning the areas, They also say that this is a ‘Swachh Bharat Abhiyan’, but I think this is a big failure. I did not like it at all. There is filth everywhere; there is rain and water accumulation everywhere. This is so much water that you can swim there. From the environmental sanitation point of view – I would rate it zero. Even in negative.” – (Nurse at a PHC in South Delhi)

The authors identified four key clusters contributing towards various challenges in the management of dengue in Delhi, namely – public factors, institutional factors, for-profit health centers and media. Public factors consist of lack of awareness, lack of community participation, panic during outbreaks and ignorance amongst the general

population. Government factors consist of poor sanitation, infrastructure, manpower, logistics, support from Municipal Corporation of Delhi (MCD) and disease surveillance. Private health centers are attributed with a non-existent disease reporting system. Media is involved in spread of panic during outbreaks and has difficulty in verifying actual data. The dotted lines indicate the inter-relationship between two or more factors. (Fig. 1)

Discussion

This study identified four key clusters, suggested by stakeholders, highlighting various challenges in the management of dengue in Delhi, namely – public factors, institutional factors, for-profit health centers and media. Public factors consist of lack of awareness, lack of community participation, panic during outbreaks and ignorance amongst the general population. No recent study was found that looked into drivers to control dengue as perceived by stakeholders. As such, there are certain community studies that have thrown light on the parts of those areas in bits and pieces. A study done in New Delhi at a tertiary care center by Chinnakali et al.¹² showed that almost everyone knew about dengue (96.3%); however much lesser proportion of respondents actually translated that awareness into practice.¹⁰⁻¹² In a study done in Malaysia, similar findings were reported by Ayyamani et al.¹³ Singh reported concerns over poor institutional facilities in the 2006 outbreak of dengue in Delhi.¹⁴ Rao et al. commented on the acute shortage of healthcare workforce and poor infrastructure in India.¹⁵ In a study done by Hay et al.,¹⁶ the authors estimated the actual malaria burden using the verbal autopsy method. It was up to 13 times the reported cases. Similarly, like in the case of Malaria, Kakkar identified gross underreporting of dengue cases in India.¹⁷ Talyan et al. commented that only 9% of total waste generated in Delhi is treated by correct methods and the rest is disposed of in uncontrolled open landfills at the outskirts of the city.¹⁸ Authors believe that if the media is briefed and trusted, the same media can be used to disseminate and communicate correct information.

Conclusion

This study identified four key themes in management of dengue in Delhi – public factors, institutional factors, for-profit health centers and media. These areas should be further explored for more challenges in management of the disease so that appropriate interventions can be advised.

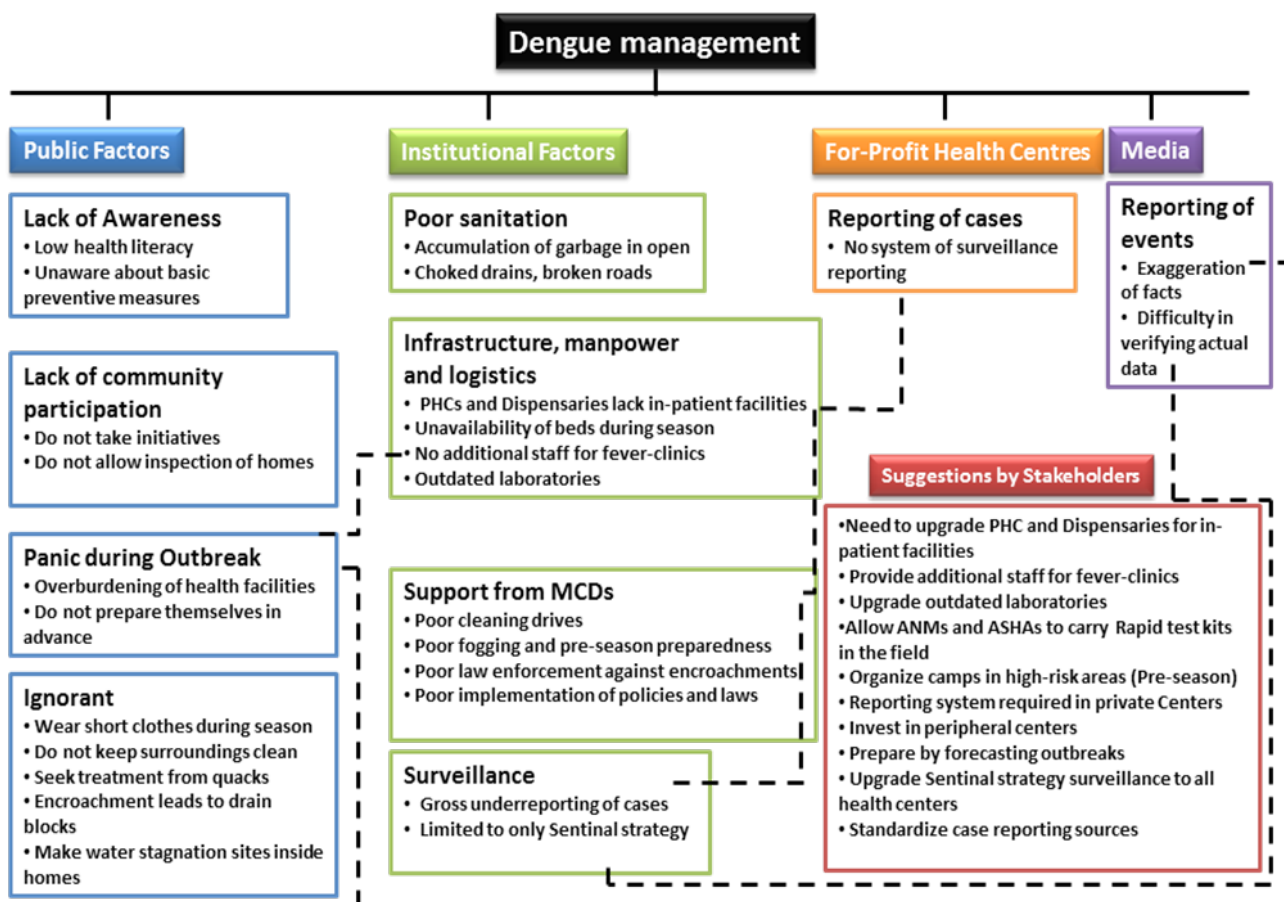


Figure 1. Framework for Challenges and Suggestions in Dengue Management

Conflict of Interest: None

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