

**GOVERNMENT OF INDIA  
MINISTRY OF HEALTH AND FAMILY WELFARE  
DEPARTMENT OF HEALTH AND FAMILY WELFARE**

**LOK SABHA  
UNSTARRED QUESTION NO. 4145  
TO BE ANSWERED ON 11<sup>TH</sup> AUGUST, 2017**

**JAUNDICE OUTBREAK IN SHIMLA**

**4145. SHRI ANURAG SINGH THAKUR:**

Will the Minister of **HEALTH AND FAMILY WELFARE** be pleased to state:

- (a) whether Shimla faced acute jaundice outbreak in 2007-08, 2010-11, 2013 and in 2016;
- (b) the steps taken by the Government to ensure that the same is not repeated; and
- (c) whether National Institute of Virology, Pune collected samples and highlighted issues relating to the untreated sewage water and the issues were also highlighted by the High Court and Centre for Science and Environment and if so, the details of the contents of the report and recommendations which were adopted?

**ANSWER**

**THE MINISTER OF STATE IN THE MINISTRY OF HEALTH AND  
FAMILY WELFARE  
(SMT. ANUPRIYA PATEL)**

- (a): Yes, Shimla faced acute hepatitis outbreak in the years 2007, 2010, 2013 and in 2016.
- (b): A Central team visited the affected areas under Shimla Municipal Corporation during the period from 11 to 15 January, 2016 to investigate jaundice outbreak. The team observed that:
- A total of 564 jaundice cases were reported from 11th December 2015 to 15th January 2016 in SMC wards. The overall attack rate was 90.7 per 10000 persons.
  - Appropriate treatment process of the contaminated water was not followed in the Ashwani Khudd treatment plant resulting in the supply of contaminated water to the reservoir and to the community settings.
  - Out of 53 serum samples collected in January 2016, 43 samples were positive for IgM antibody to HEV. None of the samples tested was found positive for IgM antibody to HAV.
  - The State Director Health Services had also formed a committee to investigate, monitor and control the outbreak.

The following activities are undertaken to ensure that the disease is not repeated:

- i) House to house survey of jaundice cases.
- ii) Use of boiled water for drinking and hand-hygiene practice are emphasized.
- iii) Community is sensitized to use water filter and not to defecate in the open.

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- iv) State Irrigation & Public Health Departments have been requested to ensure proper and effective treatment of sewerage and also to treat the drinking water before supply.
- v) Other IEC activities are also being undertaken for prevention and control of jaundice.

(c): Yes. The National Institute of Virology (NIV) was involved in investigating the 2007 and 2016 outbreaks.

(i) 2007 Outbreak: The NIV team visited Shimla on 18.02.2007 and collected 89 patient's samples and 55 samples were tested positive for Hepatitis A virus (HAV) IgM antibodies and 1 tested positive for both HAV and Hepatitis E virus (HEV) IgM. The etiology of this outbreak was hepatitis A virus. The team collected water samples from Malyana sewage treatment plant (pre-treatment and post treatment), Ashwani Khudd water supply plant (pre-treatment and post treatment) and kasumpti water tank. Of these, Kasumpti water was negative for HAV RNA, while all other samples were positive for HAV RNA indicating contamination of water with HAV.

(ii) 2016 Outbreak: The NIV team visited IGMC Hospital, DDU Hospital, Kamala Nehru Hospital, Malyana sewage treatment plant [STP], Ashwini Khudd water pumping station, and Solan district hospital. Of the 57 patient's samples, 46 were found to be anti-HEV IgM antibody positive and none were anti-HAV IgM positive confirming it to be hepatitis E outbreak. Water samples from the STP, water pumping station, affected and unaffected households in the area, and from Solan district were collected. All the water samples were positive for both HEV and HAV RNA indicating contamination of the water.

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