

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

**RAJYA SABHA  
STARRED QUESTION NO. 174  
TO BE ANSWERED ON THE 19<sup>TH</sup> DECEMBER, 2023**

**RESPIRATORY ISSUES DUE TO AIR POLLUTION**

**174 SHRI RAJEEV SHUKLA:**

Will the Minister of Health and Family Welfare be pleased to state:

- (a) whether Government has witnessed a rising trend in the number of respiratory issues reported in the country as a result of air pollution especially in the northern regions of the country;
- (b) if so, the details thereof, State/UT-wise and year-wise;
- (c) the measures being taken to address the same; and
- (d) the proposed measures to be taken thereon?

**ANSWER  
THE MINISTER OF HEALTH AND FAMILY WELFARE  
(DR MANSUKH MANDAVIYA)**

- (a) to (d) A Statement is laid on the Table of the House.

**STATEMENT REFERRED TO IN REPLY TO RAJYA SABHA  
STARRED QUESTION NO. 174 \* FOR 19<sup>TH</sup> DECEMBER, 2023**

**(a) to (d)** That Air pollution is one of the major contributing factors for respiratory ailments and associated diseases is common knowledge. There is no doubt that health of human body, including the respiratory system are additionally impacted by number of other factors which include food, occupation, medical co-morbidity, immunity and heredity, etc., of the individuals also. The association between air pollution and obstructive lung disease is well established.

National Programme on Climate Change & Human Health (NPCCHH) of the National Centre for Disease Control (NCDC) has initiated surveillance on acute respiratory illnesses through sentinel surveillance sites, established in nearly 80 hospitals across 18 States. This surveillance is meant to observe the trends of acute respiratory illnesses reported from sentinel hospitals of cities in relation to the respective air quality levels in the city. Preliminary observations from such data suggest that there is an increase in respiratory illness cases during periods when air quality worsens.

ARI digital surveillance data was started in August 2023 through Integrated Health Information Portal. From the Northern region, Punjab has started reporting in IHIP. The ARI surveillance data from September to November 2023 is given at **Annexure-I.**

The data of Respiratory Illness Surveillance in respect of Delhi is placed at **Annexures II.**

Indian Council of Medical Research (ICMR) in collaboration with Public Health Foundation of India (PHFI) & Institute of Health Matrix and Evaluation (IHME) had conducted a study titled "The impact of air pollution on deaths, disease burden and life expectancy across India", available at [http://dx.doi.org/10.1016/S2542-5196\(18\)30261-4](http://dx.doi.org/10.1016/S2542-5196(18)30261-4)

ICMR has also conducted a multisite study to document acute effect of increase in air pollution on respiratory morbidity. The study was conducted on patients attending emergency room of 5 sites namely AIIMS (Pediatric, Adults), Kalawati Saran Children's Hospital, VP Chest Institute, National institute of Tuberculosis and Respiratory Diseases. For purpose of this study, air pollution was divided into three clusters (high, medium and low pollution days). A total of 33,213 which constituted 12.6% of number of patients who visited emergency rooms were identified and enrolled with complete data collection. Analysis suggested that there was an increase in the number of patients attending emergency rooms with increase in pollution levels. Effect was more pronounced in children. The relevant article can be accessed at <https://doi.org/10.1007/s11356-021-13600-7>

Government of India has taken several steps to address air pollution issues which include:

- i. MoHFW operates National Programme on Climate Change and Human Health (NPCCHH) at National Centre for Disease Control (NCDC) from 2019 onward, with an objective to create awareness, capacity building, health sector preparedness and response and partners related activities on climate sensitive health issues in the country. Now the Programme has been expanded to all States/UTs and activities are conducted in the form of training on Climate Sensitive Diseases, Surveillance on Acute Respiratory Illnesses and Heat related Illnesses, generation and dissemination of Information, Education & Communication (IEC) on Air Pollution and Heat and their impact on human health. National Centre for Disease Control (NCDC), Directorate General of Health Services, MoH&FW issue timely and repetitive health Advisory on Air Pollution and its impact on human health, as also the required preparedness for such health problems at all levels of health care facilities across the country.
- ii. National Health Adaptation Plan for diseases due to Air Pollution has been developed and launched in July 2021; on this basis 34 States/UTs have developed a chapter on air pollution and impacts of climate change in their State Action Plan on climate Change and Human Health (SAPCCHH).
- iii. Under the Programme, State/UTs have been provided budget through National Health Mission, MoHFW for adopting green climate resilient infrastructure for healthcare facilities such as installation of solar paneling, energy assessment and auditing and establishing rain water harvesting system. The Programme has developed Guidelines for Green and Climate Resilient Healthcare facilities and Guidelines for Solar Powering Healthcare facilities in February 2023 and are available at <https://ncdc.mohfw.gov.in/showfile.php?lid=960> and <https://ncdc.mohfw.gov.in/showfile.php?lid=959>
- iv. Operational Guidelines on Surveillance on air pollution related illnesses including User manual for the Mobile application and Web Portal of Sentinel Surveillance on Air Pollution related illness are available in the link provided at <https://ncdc.mohfw.gov.in/WriteReadData/1892s/33115111771669018502.pdf> and <https://ncdc.mohfw.gov.in/WriteReadData/1892s/99638159621669019076.pdf>

- v. Several workshops and trainings have been conducted for community level health workers on air pollution and its health impact on children's health.
- vi. Health sector preparedness and response mechanisms on air pollution and health related issues such as Air Quality Index (AQI) reports are being shared for all cities on NCDC website in collaboration with Central Pollution Control Board. Air quality forecasts from IMD are being shared to States for preparedness and response mechanisms.
- vii. Important Days related to air pollution like International Day of Clean Air for Blue Skies, World Environment Day, World Environmental Health Day, National Pollution Control Day are also being observed to generate awareness among the people regarding air pollution and its health effects.
- viii. Pradhan Mantri Ujjwala Yojana (PMUY) aims to safeguard the health of women and children by providing them with a clean cooking fuel- LPG.
- ix. Swachh Bharat Mission to clean up streets, roads and infrastructure of India's cities, smaller towns and rural areas. Swachh Hawa is an integral component of Swachh Bharat.
- x. Ministry of Environment, Forest and Climate Change has launched National Clean Air program in 2019 as a national level strategy to reduce air pollution levels across the country.

**Annexure-I****State wise digital surveillance data for North India from Oct –Nov 2023**

State	Month 2023	AQI	Total Number of ARI cases reported in Emergency Department
Punjab	October 2023	116	136
	November 2023	228	386

**Annexure-II****ARI Surveillance Data from 6 Central Hospitals-Delhi 2021-2023#**

Year	Month	Average AQI	Total Number of Respiratory illness cases reported to Emergency Department
2021	January	324	3276
	February	287	3367
	March	223	3747
	April	201	3270
	May	144	1917
	June	147	2629
	July	110	2872
	August	106	3574
	Sept	78	4397
	October	173	3370
	November	376	4155
	December	335	4594
2022	January	278	3555
	February	224	3621
	March	217	5591
	April	255	5590

	May	212	5982
	June	190	6137
	July	87	5027
	August	93	5746
	Sept	104	5538
	October	210	6178
	November	320	7039
	December	319	7050
2023	January	311	6981
	February	237	6163
	March	169	6461
	April	179	4865
	May	173	4582
	June	128	5131
	July	83	4490
	August	116	4789
	Sept	107	5601
	Oct	218	5135
	Nov	372	5817

# The compiled data shows the collection of data on the cases of Respiratory Illness reported to the Emergency Departments of Central Government Hospitals of Delhi.