

# **Health Impact of Air Pollution - Disease Burden Study**

#### Why in news?

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India State-Level Disease Burden Initiative recently released the estimates of reduction in life expectancy associated with air pollution.

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### What is the initiative?

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- The India State-Level Disease Burden Initiative was launched in 2015.  $\slash n$
- The India State-Level Disease Burden Initiative is a venture of the  $\n$

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- i. Indian Council of Medical Research (ICMR)  $_{\n}$
- ii. Public Health Foundation of India (PHFI) n
- iii. Institute for Health Metrics and Evaluation (IHME)  $\space{\space{1.5}n}$

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• This comes in collaboration with the Ministry of Health and Family Welfare, along with experts and stakeholders associated with over 100 Indian institutions.

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 $\bullet$  The Initiative makes assessment of the diseases causing the most premature deaths and ill-health in each state of the country.  $\n$ 

• The data are analysed using the standardised methods of the Global Burden of Disease Study.

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## What are the key findings?

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- India, with 18% of the world's population, has a high 26% of the global premature deaths and disease burden by air pollution.  $\n$
- Moreover, one in eight deaths in India was attributable to air pollution in 2017.

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- This makes pollution a leading risk factor for death.  $\slash n$
- The estimate found that 12.4 lakh deaths in India in 2017 were due to air pollution.

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- This included 6.7 lakh deaths due to outdoor particulate matter air pollution and 4.8 lakh deaths due to household air pollution.  $\n$
- Over half of the deaths due to air pollution were in persons less than 70 years of age.

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- In 2017, 77% population of India was exposed to ambient PM2.5 above the recommended limit by the National Ambient Air Quality Standards.  $\n$
- The highest PM2.5 exposure level was in Delhi, followed by the other north Indian States of Uttar Pradesh, Bihar and Haryana.  $\n$
- Effect Contrary to the popular association of pollution with respiratory diseases, poor air is responsible for heart diseases as well.  $\n$
- Disability-adjusted life years (DALYs) is the sum of years of potential life lost due to premature mortality and the years of productive life lost due to disability.
- DALYs attributable to air pollution in India in 2017 for major noncommunicable diseases were at least as high as those attributable to tobacco use.

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• The average life expectancy in India would have been 1.7 years higher if the

air pollution levels were less than the minimal level causing health loss.  $\n$ 

• The highest increases in life expectancy would have been in the northern States of Rajasthan (2.5 years), Uttar Pradesh (2.2 years) and Haryana (2.1 years).

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### What does it call for?

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- Air pollution needs much more than ad-hoc reactions such as bans, fines and shutting down of power stations.  $\n$
- The variation between States in the exposure to outdoor and indoor air pollution is evident with the study.
- $\bullet$  This factor should thus be taken into account while planning policies to reduce exposure to pollution and its health impact.  $\n$
- The study also reveals air pollution is a year-round phenomenon, particularly in north India.
- This causes health impacts far beyond respiratory illnesses, which calls for a holistic response.
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- With obvious links between pollution control and public health, there has to be collaboration between the ministries of health and environment.  $\n$
- Pollution control policies should include the combined expertise of public health professionals, transport sector specialists, environmentalists and urban planners.

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# Source: The Hindu, Indian Express

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A Shankar IAS Academy Initiative