



FACT SHEET: AIR POLLUTION AND HEALTH

Understanding how air pollution affects the health of Indore residents and the benefits of taking action to reduce it.

Air pollution harms the health of all Indore residents. We can act now to improve health.

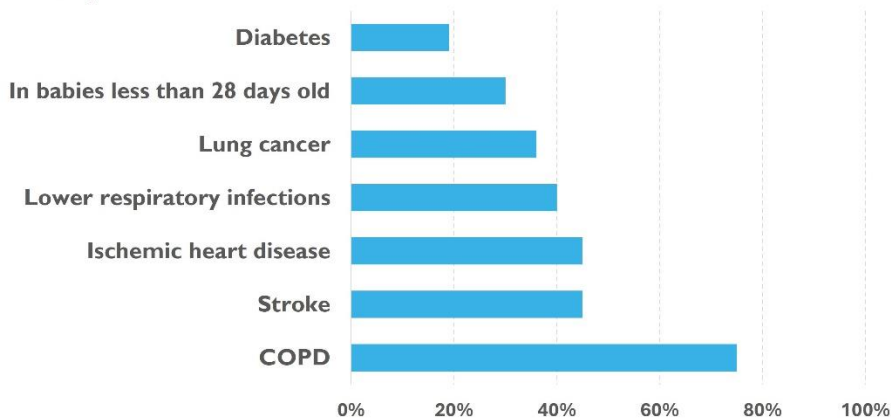
Air pollution has become an increasingly urgent health issue in Indore, carrying serious consequences for the wellbeing of all residents. It penetrates deep into the lungs, can even enter the blood and affects health at every stage of life.

Air pollution increases the risk of:

- Pregnant women developing preeclampsia.
- Babies being born preterm or low birth weight.
- Children developing and worsening respiratory infections, asthma, or stunted growth.
- Adults having stroke, heart and lung disease, diabetes, or cancer.
- Elderly developing the diseases above and even dementia.
- People with existing disease or pre-existing conditions having worse health.

All of this results in emergency department visits, hospitalizations and even death. It also results in higher costs, missed school days, lower productivity, and lost earnings. These consequences disproportionately fall on women, who bear the burden of unpaid care work and must take care of sick relatives if they fall ill due to pollution.

Percent of deaths caused by air pollution in Madhya Pradesh in 2021, by condition



Source: Institute for Health Metrics and Evaluation, GBD 2021



Quick Facts on Air Pollution and Health in Indore

- **Air pollution kills 8.1 million people globally each year**, making it the second leading risk factor for death, including for children under 5 years.
- **1 in 4 global air pollution deaths** happen in India.
- **In Indore, air pollution causes 2,400 deaths and 620 new cases** of childhood asthma each year.
- **Transportation is the leading source of fine particle (PM2.5) air pollution** in Indore, as compared to other sectors.

What pollutants most commonly affect Indore residents?

Key pollutants of concern in Indore include fine particle pollution (particulate matter <2.5 microns, PM2.5), black carbon, ozone, and nitrogen dioxide.

Transportation is the leading source of these pollutants, followed by industrial emissions and burning of solid fuels. According to the Clean Air Catalyst's [Emissions Inventory Report](#), the transportation sector accounts for 70% of fine particle pollution in Indore, more than any other sector. Road dust, exhaust, and non-exhaust emissions all contribute.

How can we alleviate the health impacts of air pollution in Indore?

There is good news! Practical, effective solutions are available now, particularly in the transportation sector. We group them into two broad categories:

1. **Actions that reduce pollution caused by vehicles**, like replacing or retrofitting old polluting vehicles and boosting street cleaning operations to limit road dust.
2. **Actions that reduce the number of vehicles on the road**, like expanding and improving Indore's metro and rapid bus transit systems.

The Clean Air Catalyst has identified a set of high-priority transportation solutions that, with effective implementation, have potential to significantly reduce air pollution within just a few years. You can learn more about these solutions in our [Transportation Solutions Brief Summary](#).

What are the health benefits of sustainable transportation?

The solutions outlined above would bring many health benefits for Indore residents. They would reduce low-weight births and infant mortality, respiratory infections and stunting in children, and diabetes, cancer, and heart and lung diseases among adults, which are already high.

Who will benefit?

Everyone! But populations that face high exposures would see the greatest benefits. Examples of these include traffic police, street vendors, drivers, children, shop owners, and people who live, work, and play near roads. Women, the elderly, low-income populations, and people with existing diseases who are particularly vulnerable will also feel the public health benefits of cleaner air.

Are there other health benefits beyond those from air pollution reduction?

Yes! These solutions will also improve traffic management, reduce congestion, and save lives. Investments in protected, safe, and attractive bicycle and pedestrian pathways have been shown to reduce deaths and injuries due to vehicular accidents. In the first half of 2023 alone, Indore saw 192 deaths and 1,900 injuries due to accidents.

Further, Indore is dealing with diabetes and heart disease epidemics. Lack of physical activity, obesity, and air pollution are strong risk factors. Encouraging the shift from private vehicular transport to public transport will encourage physical activity and decrease stress, which can also lower risk levels for diabetes, heart disease, and lung disease among the Indore population.

The time is now to support strong transportation clean air solutions in Indore! The health of our families depends on it. Learn more about how to join the Indore Clean Air Coalition at cleansircatalyst.org.

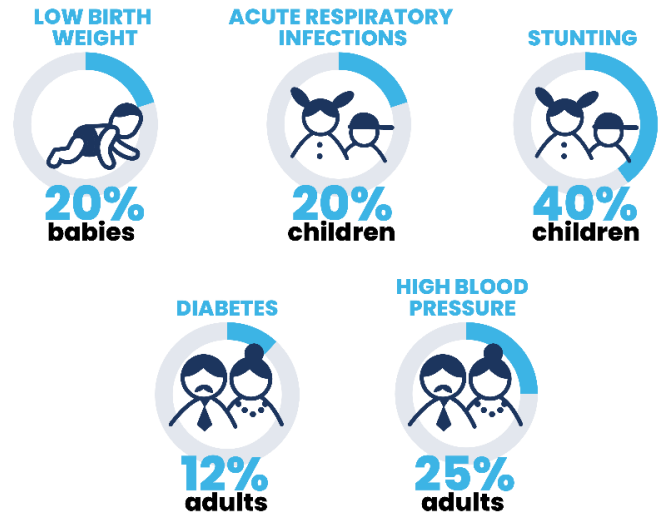
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Percent of Indore residents affected by conditions where air pollution is a risk factor



Sources: NFHS, India | POSHAN Abhiyaan | Taylor and Francis Group