

GOVT. MEDICAL COLLEGE & HOSPITAL, CHANDIGARH
(ESTABLISHMENT BRANCH-IV)

Endst. No. GMCH/EIV/EA3/2018/


49947

Dated, Chandigarh the,

03 DEC 2018

A copy of letter No. 3627/F-II(5)/2018/20877 dated 12.11.2018 titled "Air Pollution" received from the Principal Secretary Health, Chandigarh Administration, is forwarded to the System Analyst, IT Centre, GMCH to e-circulate/email the same to all the HODs/Branch Incharges of GMCH Chandigarh for information and further action in the matter.

Encls: As above.


Office Superintendent (Estt.-IV)
GMCH, Chandigarh

Urgent
OS (EIV)
JDA (away)
28-11-2018
20/11/2018

From

The Principal Secretary Health,
Chandigarh Administration.

To

1. The Director Principal,
Govt. Medical College and Hospital,
Sector-32, Chandigarh.
2. The Director Health & Family Welfare,
U.T. Chandigarh

No.3627/F-II(5)/2018/ 20877
Dated, Chandigarh the 12/11/18

Subject:- Air Pollution.

Enclosed please find herewith a copy of D.O.letter

No.F.No.70/NCDC/CEOH&CCH/2018-19/AP Advisory dated 16-10-2018 alongwith its enclosure received from Joint Secretary, Govt. of India, Ministry of Health & Family Welfare, Nirman Bhawan, New Delhi on the subject noted above for taking necessary action in the matter.

DA: As above

Wingh 12-11-18
Superintendent Health,
For Principal Secretary Health,
Chandigarh Administration.

174
PA/JDA/.....
Dated 19/11/18



Health Branch
Diary No. 3627
Dated 01/11/2018



LAV AGARWAL, IAS
Joint Secretary

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भारत सरकार
स्वास्थ्य एवं परिवार कल्याण मंत्रालय
निर्माण भवन, नई दिल्ली - 110011

Government of India
Ministry of Health & Family Welfare
Nirman Bhavan, New Delhi - 110011

D.O.No.70/NCDC/CEOH&CCH/2018-19/AP_Advisory
Dated the: 16th October, 2018

PA/PSH/ 10/20
Dated: 1-11-18

PA-ASH/ 10/20
Dated: 1/11/18

Dear Sir,
Air Pollution has become a serious challenge in recent times. The Air Quality Index is usually reported to reach from poor to severe levels during winter months. This is both an urban and rural issue that needs to be addressed.

The health impacts of air pollution are challenging. WHO has recently reported that about 7 million deaths per year globally are attributable to air pollution, and of these WHO SEA Region alone accounts for 2 million deaths annually. Air Pollution accounts not only for acute illnesses but also chronic illnesses of respiratory, cardiovascular and cerebrovascular incidents that result in premature mortality. The consequences are more grave for vulnerable population such as children, pregnant women, older people, those with pre-existing illnesses, and those exposed due to their occupations.

In this regard, we are sharing an advisory on air pollution and health providing a brief on the subject. It lists several recommendations that state health authorities should consider to strengthen their health systems and generate awareness about air pollution and its health consequences. The main ones are developing state-district-city level action plans for air pollution and health as part of State Action Plan for Climate Change and Human Health, and establishing sentinel surveillance for acute respiratory illnesses in emergency units of hospitals in highly polluted cities.

Now as the season is changing and air quality levels are likely to reduce, it is also an appropriate time to initiate IEC campaigns. The material provided in this advisory could be utilized to develop IEC messages.

We hope under your dynamic stewardship, these measures would be taken at earliest to safeguard the health of the people.

With regards.

Yours sincerely,

(Lav Agarwal)

Shri Arun Gupta
Home Secretary-cum-Secretary
Health & Family Welfare,
UT Secretariat, Deluxe Building,
Sector-9, Chandigarg- 160017



ADVISORY ON AIR POLLUTION AND HEALTH

What is Air Pollution?

Air pollution is the contamination of indoor or outdoor air by a range of gasses and solid particles that modify natural characteristics of air we breathe. Key health harmful pollutants include particulate matter (PM_{2.5} and PM₁₀), carbon monoxide (CO), ozone (O₃), black carbon, (BC), sulfur dioxide and nitrogen oxides (Nox). Air pollution is often not visible to the naked eye as the sizes of the pollutants are smaller than the human eye can detect.

What are major sources of Air Pollution?

Ambient (outdoor) air pollution is caused by factors such as vehicular exhaust, road dust, construction dust, burning of garbage, burning of agricultural crop residues, industrial emissions, fossil fuel fired thermal power plants and brick kilns, burning of biomass in households, burning of firecrackers etc.

Household air pollution is caused by burning biomass such as wood, coal, dung, kerosene in chulhas or fireplaces for cooking and heating purposes. Indoor air pollution is caused by burning mosquito coils, incense sticks, cigarettes, bidis, use of sprays, solvents, and fumes from chemicals used in building interiors etc.

Air Quality

Air Quality Index (AQI) is a tool based on ambient concentration values of air pollutants and is categorized as Good, Satisfactory, Moderately polluted, Poor, Very Poor, and Severe. Worsening of Air Quality Index especially when in range of 'poor to severe' in an area may result in increase in morbidity and mortality among the exposed people.



The health impacts of air pollution depend on the level of pollution and exposure duration. The individuals' vulnerability to the health impacts of pollution can also differ based on demographic factors and predisposing health conditions.

Short term high level exposures can result in acute health reactions such as irritation to eyes, nose, and throat, along with coughing, wheezing, chest discomfort and acute upper respiratory infections. Vulnerable groups can experience more severe effects such as lower respiratory tract inflammation and infection, exacerbation of asthma, bronchitis or exacerbation of chronic illnesses such as chronic obstructive pulmonary disease, ischaemic heart disease, and cerebrovascular stroke. Long term exposures to even lower level of pollution can result in chronic illnesses of respiratory and cardiovascular systems, lung cancer and premature death.

Vulnerable Population

Following people may be considered vulnerable to health consequences of air pollution –

1. **Age group** - Individuals who are under five aged children and in old age.
2. **Pregnant women** – Exposure during pregnancy may have consequences for child in womb.
3. **Predisposed health conditions** - Those with pre-existing illnesses of respiratory and cardiovascular system are at high risk.
4. **Low socio-economic conditions** – Those with poor nutritional status and those living in conditions of poor housing, using fossil fuels for cooking, heating and lighting purposes have high risk.
5. **Occupational group** – Those with possibility of prolonged exposures such as traffic policemen, traffic volunteers, construction workers, road sweepers, rickshaw pullers, auto-rickshaw drivers, roadside vendors, and others working outdoors in polluted settings are at high risk. Women burning biomass for cooking, and sweeping dust are vulnerable on account of their household work.

Recommendations for State Health Department

1. State authorities need to keep a check on Air Quality Index data, available at CPCB and MAPAN-SAFAR website or obtain the same from State Pollution Control Board.

- vi. Strategies to integrate air pollution data with disease surveillance data.
- vii. Details of hot spots based on pollution levels and population vulnerability, and plan for appropriate healthcare services in hot spot localities.
- viii. Roles and responsibilities identified for stakeholders in districts/cities.
- ix. Standard procedures for operational co-ordination among local government and stakeholders.
- x. Identified risk reduction activities in districts/cities.
- xi. List of available resources to handle air pollution and health related issues by districts/cities.
- xii. Details of planned awareness and capacity building activities (IEC, advisories, training).
- xiii. Details of plans to make healthcare institutions environment friendly
- xiv. Details of responsibilities of healthcare facilities towards
 - a. Data surveillance
 - b. Response to address increase burden of illness
 - c. Logistics required at health care facilities
 - d. Preparedness of health personnel
 - e. Develop operational communication channel
 - f. Promote clean air by controlling waste incineration, use of diesel generators, use of vehicles non-compliant to vehicle emission standards etc.

3. Generate awareness to prevent unhealthy effects of Air Pollution:

- General Population:

Reduce risk from exposure to air pollutants by

- Avoid places with high pollution like roads with slow & heavy traffic, areas near polluting industries, construction-demolition sites, coal based power plants and brick kilns etc.
- Reschedule outdoor activities as per AQI level, and remain indoors on days with poor to severe AQI.
- On days with poor to severe AQI, avoid outdoor morning and late evening walk, run, jog and physical exercise. Do not open external doors and

mouth and nose. Ensure to replace the masks after usage as instructed. Paper masks, handkerchiefs, scarves and cloth are not effective.

- If you choose to use air purifier, follow manufacturers' guidelines. Ensure to replace and clean filters as instructed. Avoid using an air purifier that works by generating ozone, as it increases pollution inside rooms.
- When operating air conditioners in buildings or vehicle, use in "re-circulate" mode to avoid contact with outside air.

For further information, please visit

- http://www.searo.who.int/india/topics/air_pollution/en/
- <http://www.who.int/airpollution/en/>
- <http://cpcb.nic.in/National-Air-Quality-Index/>
- http://cpcb.nic.in/cpcbald/AQI_new.php
- <http://envfor.nic.in/content/download-green-good-deed-audio-visual-creatives>
- <https://www.unenvironment.org/explore-topics/air>