

Training Program
Indoor Air Quality and Its Health Impact on Women in Gujarat, India
Through: SATCOM (Vande-Gujarat Channel-I)

Date: 29th June. 2024 Time: 15:00 – 16:45 Hrs

Concept Note

Indoor air quality (IAQ) is a critical health concern, particularly for women in India, including the state of Gujarat. Poor IAQ in homes is primarily due to the use of traditional biomass fuels such as wood, dung, and crop residues for cooking and heating. These fuels produce high levels of particulate matter (PM), carbon monoxide (CO), and other toxic pollutants, leading to significant health issues.

Data from the World Health Organization (WHO) reveals that around 3 billion people globally rely on biomass fuels, and a substantial portion of this population is in India (1). In Gujarat, a considerable percentage of households, especially in rural areas, use these traditional fuels. (2).

Women, being the primary individuals responsible for cooking, are disproportionately exposed to indoor air pollution. The National Family Health Survey (NFHS-5) highlights that women in these households spend an average of 4-5 hours daily in kitchens, leading to prolonged exposure to harmful pollutants. The exposure results in acute and chronic respiratory conditions such as chronic obstructive pulmonary disease (COPD), asthma, and lung infections. Studies indicate that women exposed to biomass smoke are 3-4 times more likely to develop COPD compared to those using cleaner fuels.

Furthermore, indoor air pollution is linked to adverse pregnancy outcomes. Research from the Indian Journal of Community Medicine points out that pregnant women exposed to high levels of indoor pollutants are at a higher risk of low birth weight (LBW) infants, stillbirths, and preterm births. In Gujarat, the maternal mortality rate (MMR) remains a concern, with poor IAQ being a contributing factor.

Efforts to improve IAQ include promoting cleaner cooking technologies like LPG and electric stoves. Government initiatives such as the Pradhan Mantri Ujjwala Yojana (PMUY) aim to provide LPG connections to women in rural areas, reducing reliance on biomass fuels. While these measures show promise, continuous

monitoring, awareness campaigns, and accessibility to cleaner technologies are essential to safeguard the health of women in Gujarat and across India. Considering these points GIDM has planned to conduct a SATCOM training program on abovementioned title: "Indoor Air Quality and Its Health Impact on Women in Gujarat, India".

References:

World Health Organization. (2016). Burning Opportunity: Clean Household Energy for Health, Sustainable Development, and Wellbeing of Women and Children. [WHO](#), pp. 10-12, 27-29.

Ministry of Health and Family Welfare, Government of India. (2016). Report on the Status of Household Air Pollution in India. [MoHFW](#), pp. 34-37.

National Family Health Survey (NFHS-5). (2019-20). International Institute for Population Sciences (IIPS) and ICF. NFHS, pp. 56-58.

Smith, K. R., et al. (2014). Household Air Pollution from Solid Cookfuels and its Effects on Health. In Environmental Health Perspectives, 122(6), 573-580. [EHP](#), pp. 576-578.

Indian Journal of Community Medicine. (2018). Impact of Indoor Air Pollution on Women's Health: A Case Study. [IJCM](#), pp. 40-43.

Pradhan Mantri Ujjwala Yojana. (2016). Ministry of Petroleum and Natural Gas, Government of India. [PMUY](#), pp. 5-7.