

Air pollution: A burning issue in our homes

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The problem of air pollution and its ill effects on people has gained significant traction in the media, largely driven by the abysmal air quality in Delhi and the dubious honour of Indian cities repeatedly topping global air pollution charts. Naturally, this has led the conversation to be primarily about ambient air pollution (AAP), particularly in urban areas. In turn, this has turned the spotlight on issues such as emissions from transport, crop burning, road dust, burning of waste and industries large and small. This media attention is definitely welcome and can hopefully trigger suitable and well-considered policy responses at city, regional or national levels, leading to cleaner air.

However, this discourse leaves out the single largest source of air pollution and its adverse health effects – the pollution coming from our homes. Burning of solid fuels such as firewood and dung-cakes, mainly for cooking, result in emissions of fine particulate matter and form by far the single largest source of air pollution in the country. Various pieces of evidence underscore this fact. Given the scepticism in some circles about the validity of such evidence based on its source, it is important to state that this evidence mostly comes from Indian studies, often involving some agency of the Government of India.

Firstly, various studies point out that the largest single cause of AAP is actually household air pollution (HAP). According to a 2018 international study led by many reputed researchers including five Indians (bit.ly/2CUJGLJ) titled “Burden of Disease attributable to Major Air pollution sources in India”, 11 lakh deaths were attributable to AAP in 2015, of which as many as 2.6 lakh were due to HAP. A 2015 report of the Steering Committee on Air Pollution and Health Related Issues available on the Ministry of Health and Family Welfare’s website (bit.ly/2HIN9H5), henceforth (MoHFW, 2015), reached a similar conclusion that about 26% of particulate matter AAP was caused due to combustion of solid fuels in households.

Secondly, HAP is a major cause of mortality and morbidity in the country on its own. (MoHFW, 2015) states that HAP by itself, i.e. apart from its 26% contribution to AAP, contributed to about 10 lakh deaths in 2010 and is the second biggest health risk factor in India (in comparison, AAP was seventh). A 2017 study spearheaded by the Indian Council of Medical Research titled “India: Health of the Nation’s States” (bit.ly/2TwG3AX) found that the five leading causes of mortality and morbidity in India are, respectively, Ischemic Heart Disease, Chronic Obstructive Pulmonary Disorder, Diarrhoeal diseases, Lower Respiratory Infection and Stroke, of which there is strong and quantifiable evidence linking HAP to four with Diarrhoeal diseases being the exception.

In other words, the total health impacts attributable to HAP – directly and through its contribution to AAP – are more than half the health impacts attributable to air pollution. Therefore, there is a strong case to be made for tackling HAP on a war footing, which requires households to predominantly use fuels that burn cleanly, because even partial use of solid fuels can have significant health impacts. For this, HAP needs to receive much more attention than it currently does, which is less than, say, crop burning or the odd-even vehicle scheme in Delhi.

On the policy and programme front, a scheme such as Ujjwala for providing LPG connections recognizes this challenge and represents an important first step to tackle the problem, though it needs to be strengthened to improve affordability and reliability of supply. This will enable sustained usage of LPG for most cooking needs and go beyond just providing a connection. However, truly addressing this challenge requires going beyond Ujjwala and associated actions such as holding LPG panchayats and appointing LPG distributors.

Firstly, in a country as large and diverse as India, LPG need not be the only solution to address this problem and consumers should be given a wider choice of clean-burning options which could include other gaseous fuels and electricity. Secondly, hoping that a scheme like Ujjwala alone would be sufficient is akin to hoping that just mass producing vaccines and flooding hospitals and health centres with them would achieve universal immunization, without the associated efforts to ensure that each child completes the entire vaccination course. In other words, demand-side interventions to encourage people to switch to these options, to address any behavioural or cultural barriers, and to track HAP and associated health impacts, are also critical. This requires a coordinated strategy involving multiple government agencies and programmes (such as the proposed National Clean Air Plan). It also requires setting well-defined targets for HAP and its associated health impacts, and having systems to monitor and publish them. Since mitigating the health impacts of air pollution is the primary motive, this initiative could be anchored in the Ministry of Health, as indeed was recommended in (MoHFW, 2015).

Air pollution really is a burning problem – in our homes. So, if we want to breathe clean air outside, we need to look inside – our homes, particularly our hearths – and address the challenge within.

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