"it's very beautiful for the house to be filled with smoke"

# An exploration of purposely produced smoke in Wollo, Ethiopia


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## Why is this important?

Smoke → Household air pollution → Harmful health affects

Guidance from the WHO is that there is no safe threshold of airborne particulate matter[1]. Each year, close to 4 million people die prematurely from illness attributable to household air pollution[2].

Household smoke is not just a by-product of cooking and heating, it is also **purposely produced**.

We aimed to explore the reasons, values and perceptions of communities that purposely produce smoke.

## What did we do?

MIXED METHODS APPROACH

Quantitative survey
301 responses
Questions on prevalence and reasons for use

Qualitative research
13 interviews with householders
7 focus groups with healthcare workers

## What did we find?

Purposely produced smoke, such as for medication or for its pleasant smell, is almost universal (99%) amongst households in this region of Ethiopia; three quarters of households surveyed purposely produced smoke at least once a day.

"a house is nothing without smoke"

"a women and a house is not attractive without use of smoke"

***Householder quotes***


1. World Heath Organisation (WHO). *Health effects of particulate matter*. (2013)
2. GBD 2017 Causes of Death Collaborators, G. 2017 C. of D. Global, regional, and national age-sex-specific mortality for 282 causes of death in 195 countries and territories, 1980-2017: a systematic analysis for the Global Burden of Disease Study 2017. Lancet (London, England) 392, 1736–1788 (2018).


**Reasons given by householders for purposely producing smoke**

The type of bark, wood or root used to produce smoke depends on the purpose; for instance, 69% of respondents used Adrus with coffee ceremony, 22% used Woiyra for house-keeping and 24% used Kebericho for medication and/or repelling bad spirits.

Healthcare workers were conflicted in their views on the potential harms from purposely produced smoke and sought conclusive evidence.

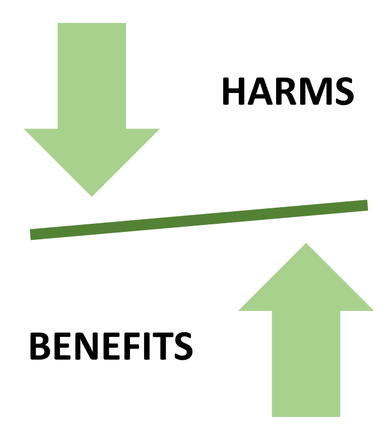
"there is nothing known about the harm of the smokes… Or what shall we do? Since there is no evidence to say anything….Can you give us a manual or something?"

***Healthcare worker***

## Public health implications

Purposely produced smoke is not regarded as 'pollution' by the local population.

With so many reported benefits of purposely produced smoke and a perceived positive overall impact on quality of life, the decision to intervene on public health ground presents an ethical dilemma.




More research is needed to evaluate the likelihood and extent of potential harms and, if appropriate, to design a culturally sensitive behaviour change intervention.