



*In Search of Better Health*

## PRESS RELEASE

**TO: NEWS EDITORS & REPORTERS**

**SUBJECT: High Levels of Carbon Monoxide in Nairobi comparable to Rural Homes.**

**DATE: Sunday, 18th, May 2024**

**NAIROBI-KENYA:** Researchers have published results that show that household air pollution from cooking is the main source of Carbon Monoxide (CO) exposure of school going children in Nairobi.

The study, christened **Tupumue**, a *Kiswahili* word meaning 'let us breathe' notes that despite most of the urban homes in the two contrasting study areas- an informal and a more affluent settlement of Nairobi, Kenya, using liquid or gas fuels, concentrations of Carbon Monoxide levels were comparable with those previously reported in rural homes that predominantly use more polluting solid fuels such as charcoal and wood.

The study has just been published in the *Environmental Pollution* scientific journal and is a multidisciplinary study bring together researchers from Kenya including those from KEMRI, and their United Kingdom counterparts from Liverpool School of Tropical Medicine (LSTM), Storkholm Environmental Institute, and the University of Stirling among others.

The non-communicable lung disease in Kenya study sought to determine the burden and early life determinants and air pollution concentrations that were measured for 24 hours in nearly 200 homes in Nairobi.

It established that a substantial proportion of homes (nearly 1 in 10) had concentrations that would activate a European-standard Carbon Monoxide alarm, suggesting that there is likely to be a considerable unquantified burden on health from acute carbon monoxide exposure and carbon monoxide poisoning.

Carbon Monoxide is a poisonous gas produced by incomplete combustion of carbon-based fuels burning fuels on poorly ventilated stoves, chronic health effects, particularly in terms of child development, may be occurring because of the carbon monoxide exposures reported here.

The study underscores the urgent need to address household air pollution in urban settings with targeted interventions essential to mitigate Carbon Monoxide exposure and safeguard public

health as this study corroborate findings that suggest that 'cleaner' fuels do not always generate the desired levels of reduction in household air pollution.

There is a need to better understand carbon monoxide exposures in urban settings and to target interventions, including community education on household air pollution, that reduce exposure from evening cooking activity within the home.

Kindly find attached a link to the publication:

[https://docs.google.com/document/d/1H6s2WtCUtzV37pvKEAIM15a\\_i5nkWmcE-SqHluDR4q0/edit?usp=sharing](https://docs.google.com/document/d/1H6s2WtCUtzV37pvKEAIM15a_i5nkWmcE-SqHluDR4q0/edit?usp=sharing)

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### **About KEMRI**

*The Kenya Medical Research Institute (KEMRI) is a State Corporation established in Kenya in 1979 through the Science and Technology (Repealed) Act, Cap 250 of the Laws of Kenya operated under the Science Technology and Innovation Act, 2013 as the national body responsible for carrying out research in human health in Kenya. Currently, KEMRI operates under Legal Notice No. 35 of March 2021 KEMRI has grown from its humble beginning over 40 years ago to become a regional leader in human health research. The Institute currently ranks as one of the leading Centers of excellence in health research both in Africa as well as globally.*