

*Background:*

Approximately 2.5 billion individuals use solid fuels (e.g. wood, coal) for cooking, exposing them to health-damaging household air pollution (HAP). A COVID-19 lockdown may impact the cooking habits, earning power, food security and health of millions of the urban poor living in informal settlements in low-income countries,

*Methods:* Nairobi went into COVID-19-related lockdown on April 7, 2020. A telephone-based survey was conducted from April 20-30 to document socioeconomic impacts and fuel use among consenting participants (N=196) in the informal settlement of Mukuru kwa Reuben in Nairobi, Kenya. Change in cooking habits was assessed through comparison with baseline survey data collected from a random sample of primary cooks (N=285) in Mukuru kwa Reuben from December 2019-March 2020.

*Results:* Nearly all participants (>90%; 178) reported reduced (60%) or cessation (31%) of income and insufficient food (88%) as a result of the lockdown. A majority (52%) of participants reported cooking less frequently in response to the lockdown; most commonly (52%) in order to reduce household expenses and half (51%) had changed their diet (20% stopped consuming meat/fish). Half (n=38) of respondents using liquefied petroleum gas (LPG) for cooking had reduced (n=17; 23%) or stopped using LPG (n=21; 28%) as a clean primary fuel. Households switching primary fuels (n=29) commonly substituted LPG for wood (n=8; 28%) or kerosene (n=7; 24%); or kerosene for wood (n=9; 31%). Three-quarters of residents continuing to use LPG were paying a higher price since the lockdown; unavailability of LPG was not indicated as a major barrier.

*Conclusions:* The COVID-19 lockdown has had a substantial impact on the livelihoods, fuel use and diets of families in peri-urban Kenya, including a likely increase in HAP exposures among families that stopped/reduced LPG fuel use for cooking. Increased exposure to HAP may have been compounded by being quarantined inside the home.