



What drives behaviour related to indoor air quality?

The quality of the air inside our homes can be affected by many things. Some include factors we have limited control over, like living near a busy road. Others include things we do every day, like cooking, cleaning, and ventilating our homes. The WellHome study looked at these different influences on air quality in homes in West London. One of our goals was to learn how people behave in their homes and what might encourage them to change their behaviour. By understanding what drives behaviour related to indoor air quality, we can improve how we communicate about these issues, and support people to adopt healthier habits at home.

To learn more about indoor air pollution, we worked closely with communities in West London. A total of 110 households volunteered to take part in our research (find out more about our methods [here](#)). Air pollution data were collected from each home over two 28-day periods. At the start of each period, participants completed a questionnaire about their everyday activities at home and their beliefs about air quality. At the end of each period, participants completed a shorter version of the questionnaire. As this was done for both 28-day periods, we collected a total of four questionnaires from each household. Alongside these surveys, we asked participants to fill out one survey about their home, including questions about mould and damp, the types of fuel they use, and the types of windows they have.

With the results from the questionnaire, we were able to see whether participants changed their behaviour related to air pollution during the study, and which factors encouraged them to make these changes. By analysing responses from the five questionnaires, we found that changes to cooking, opening windows, and cleaning were the most common, while smoking habits were the least likely to change. Participants were more likely to change their behaviour if they believed their air quality was poor and if they thought the problem was serious. We also found that the longer participants spent in the WellHome study, the more likely they were to change their behaviour. As the study went on, confidence became more closely linked to behaviour change. Participants who felt more confident about their ability to improve air quality were more likely to report changes later in the study. The strongest factor that encouraged behaviour change was the presence of damp and mould in their homes. In contrast, believing that they were personally vulnerable to air pollution did not necessarily make participants more likely to change their behaviour.

Overall, these results suggest that participants in the WellHome study may have left participants with a greater awareness of indoor air pollution, and with more confidence in their ability to change their habits and improve their indoor air quality. The information we learned about what encourages behaviour change, and which changes people are able to maintain for a long time, will help us to make achievable and fair policy recommendations to decrease indoor air pollution in West London.