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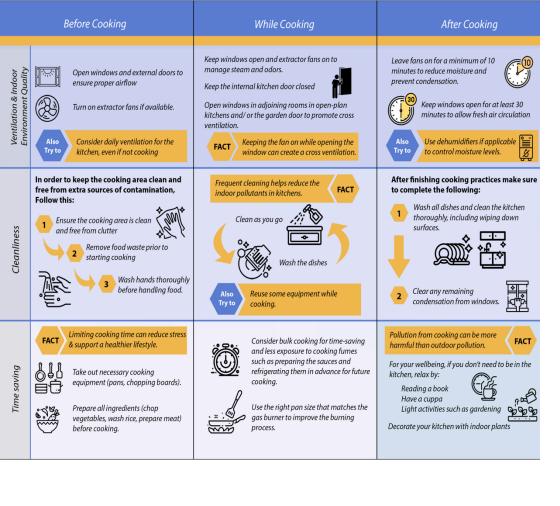
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Cultural Patterns and Indoor Air Quality:

Raising Awareness on Health and Well-Being in Ethnic Minority Homes.

3 Oct 2024

The Race and Housing Project Conference 2024

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Housing inequalities

Inequalities		
Cultural	Awaab's law	living conditions
Social	Rural housing Vulnerable people	awareness and access
Economic	Tenants	Gentrification, overcrowding
Environmental	Access to Sun/light/energy Air/ ventilation Green spaces Heat island	
Vulnerable people	Children Elderly Physical and Mental health	
Cooling – air q		
Overheating		

20241003

OVERVIEW:

Inequalities – housing – health

Culture-informed design – background research

Good Practice Guide to raise awareness of IAQ on the health and well-being of ethnic minorities

advancing equality in housing

What is a house or a home?

Concept of a house or a home has cultural, social, historic and geographic variances

Who is vulnerable and why?

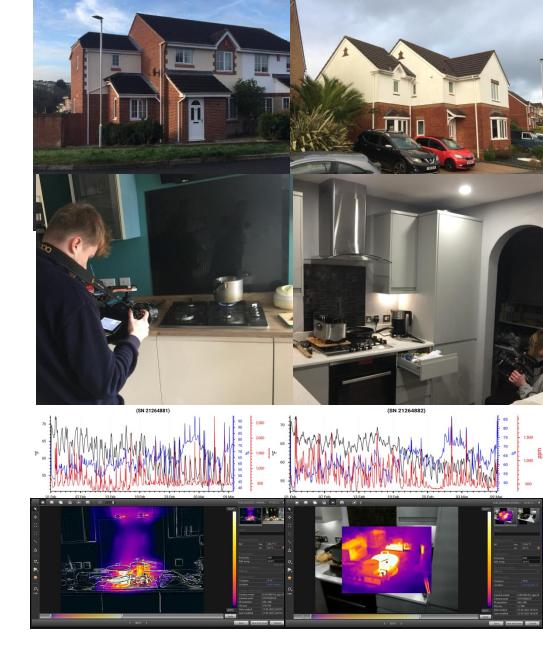
Climate change is changing our understanding of inequalities e.g socioeconomic dimensions – i) tenancy (and the tenant-owner relationship) ii) stability, mobility

Culture is important but as it has 'physical' 'material' dimensions, so behaviour change not enough

Impact of ventilation on health and well-being of ethnic minority households while racing towards 2050 carbon target.

RIBA Research Fund 2021:

My House, My Rules: Examining the impact of cultural behaviour on air quality in insulated British Asian Homes.



BRITISH ASIAN HOME

WHITE BRITISH HOME

My House, My Rules

Examining the impact of cultural behaviour on air quality in White British and British Asian Homes

Acknowledgement:
This film is part of the ongoing research,
and the research was made possible by the RIBA Research Fund 2021.



UKRI-IAA Project:

Good practice guide to raise awareness of indoor air quality on the health and wellbeing of ethnic minorities.

Welsh School of Architecture Cardiff University, UK



Cultural Pattern and IAQ:

Raising Awareness on Health and Well-Being in Ethnic Minority Homes. EPSRC-IAA project





Workshop 2 -

Behaviour in the kitchen map Activities in the Kitchen Affecting Indoor Air Quality



Cultural Pattern and IAQ:

Raising Awareness on Health and Well-Being in Ethnic Minority Homes. EPSRC-IAA project



Co-creation Workshop













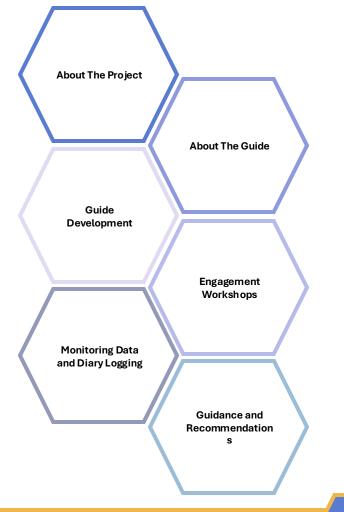


Cooking Up Good Air Quality for Better Wellbeing



Project Report





Before Cooking

Ventilation and Indoor Air Quality

Cleanliness

Before Cooking



Open windows and external doors to ensure proper airflow



Turn on extractor fans if available.

Also, Try to Consider daily ventilation for the kitchen, even if not cooking



Cooking activities have demonstrated an increase in toxic gases such as Carbon Dioxide and Nitrogen Dioxide in kitchens. However, the use of extraction systems such as cooker hoods can support the reduction of such gases if well maintained and used effectively. (Kamilia N et al, 2022)



Ensure the cooking area is clean and free from clutter



Remove food waste prior to starting cooking



Wash hands thoroughly before handling food.

Fact

Studies have shown a strong and evident correlation between the cleanliness of homes and the concentration of particulate matter in the air. Homes that are not cleaned regularly tend to have higher levels of particulate pollution, which can negatively impact indoor air quality. (Lee C, et al, 2002)



Guidance For Residents

- Open windows and doors to ensure proper airflow from the beginning of the cooking process and leave it for a minimum of 30 minutes after cooking.
- Turn on Extractor fans if available from the beginning of the cooking process and keep it on for a minimum of 10 minutes after you finish cooking.
- · Close Internal Kitchen doors.



Guidance For Decision Makers

- Provide tenants' homes with operable and functional windows.
- Regular maintenance of the functionality of the windows.
- Provide tenant's homes with energy-efficient extraction fans to encourage tenants to use the fans effectively and efficiently.
- Regular maintenance and inspections for the extraction fans
- Ensure having doors that separate the kitchens from other spaces.



Guidance For Residents

- Ensure all surfaces are clean and free from clutter.
- Wash hands thoroughly before handling food.



Guidance For Decision Makers

- Regular inspection for cleanness in properties.
- Spread awareness of the implications of regular cleaning on wellbeing and air quality.
- Spread awareness of the implications of personal hygiene whilst cooking.

Fact

Studies have shown that using non-chemical cleaning products can significantly reduce indoor pollutants and improve air quality, especially in kitchens. This is because conventional cleaners often contain volatile organic compounds (VOCs) that release harmful pollutants into the air during use (Carter T et al., 2024).

INTRODUCTION

This EPSRC-funded project explores how cultural practices in ethnic minority households affect indoor air quality, focusing on elevated Carbon Dioxide levels from cooking and ventilation habits. The resulting 'Good Practice Guide,' developed with local residents, EYST, and Cardiff Council, offers culturally sensitive advice to enhance indoor air quality. By aligning with the Wellbeing of Future Generations (Wales) Act 2015, this project underscores the important role of air quality in promoting health and well-being. Following these guidelines can reduce the harmful effects of cooking fumes, fostering healthier, more resilient communities across Wales.



A More Equal Wales

The project supports a more equal Wales by targeting health disparities in ethnic minority communities through focused support and information.







A Healthier Wales

The project promotes a healthier Wales by educating ethnic minority communities about improving indoor air quality to reduce health issues. After the workshops, our project participants' diaries mentioned ventilation 18% more, emphasising the importance of these practices for protecting well-being and preventing harmful effects.



A Resilient Wales

The project strengthens Welsh communities' resilience by promoting better indoor air quality for sustainability and health.



A Wales of Vibrant Culture & Thriving Welsh Language

The project promotes inclusive cultural engagement and intercultural dialogue within ethnic minority communities, using culture as a tool for social change and preserving diverse practices in Wales.



A Wales of Cohesive Communities

The project's workshops and collaboration foster community participation and shared responsibility, supporting the goal of building cohesive communities in







A Globally Responsible Wales

The project's focus on sustainability and better living conditions supports global goals and aligns with the vision for a globally responsible Wales.

Participants Testimonies

"participating in the project was a learning curve for me, I understood my kitchen environment and how it affects my wellbeing"

"I enjoyed the workshops, I learnt how to maintain the quality of my kitchen environment"

"Before this project, I hadn't realised how much cooking fumes could negatively impact my health."

This guide the outcome of the EPSRC IAA Project 'Good practice guide to raise awareness of indoor air quality on the health and wellbeing of

Cooking Up Good Air Quality for Better Wellbeing









Wellbeing

For more information:



Cultural

Behaviours

Scan the code / visit: https://tinyurl.com/y5vab7xf email: satish.bk@cardiff.ac.uk



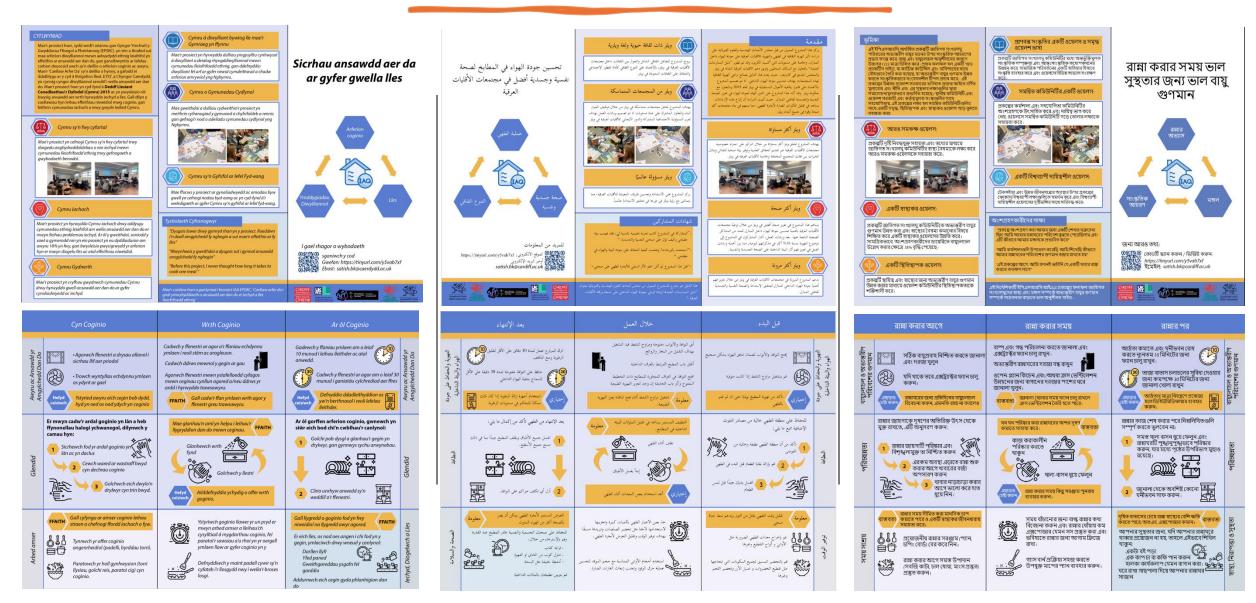






	Before Cooking	While Cooking	After Cooking
Ventilation & Indoor	Open windows and external doors to ensure proper airflow Turn on extractor fans if available. Also Try to Consider daily ventilation for the kitchen, even if not cooking	Keep windows open and extractor fans on to manage steam and odors. Keep the internal kitchen door closed Open windows in adjoining rooms in open-plan kitchens and/ or the garden door to promote cross ventilation. FACT Keeping the fan on while opening the window can create a cross ventilation.	Leave fans on for a minimum of 10 minutes to reduce moisture and prevent condensation. Keep windows open for at least 30 minutes to allow fresh air circulation Also Try to Use dehumidifiers if applicable to control moisture levels.
Cleanliness	In order to keep the cooking area clean and free from extra sources of contamination, Follow this: 1 Ensure the cooking area is clean and free from clutter 2 Remove food waste prior to starting cooking Wash hands thoroughly before handling food.	Frequent cleaning helps reduce the indoor pollutants in kitchens. Clean as you go Wash the dishes Reuse some equipment while cooking.	After finishing cooking practices make sure to complete the following: 1 Wash all dishes and clean the kitchen thoroughly, including wiping down surfaces. 2 Clear any remaining condensation from windows.
Time saving	Limiting cooking time can reduce stress & support a healthier lifestyle. Take out necessary cooking equipment (pans, chopping boards). Prepare all ingredients (chop vegetables, wash rice, prepare meat) before cooking.	Consider bulk cooking for time-saving and less exposure to cooking fumes such as preparing the sauces and refrigerating them in advance for future cooking. Use the right pan size that matches the gas burner to improve the burning process.	Pollution from cooking can be more harmful than outdoor pollution. FACT For your wellbeing, if you don't need to be in the kitchen, relax by: Reading a book Have a cuppa Light activities such as gardening Decorate your kitchen with indoor plants

Translation

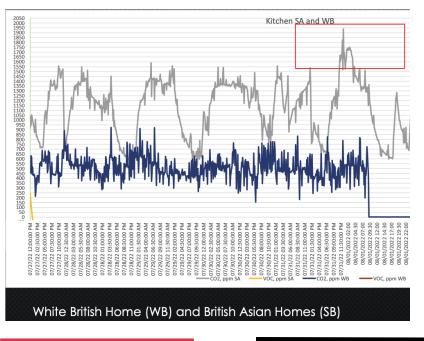


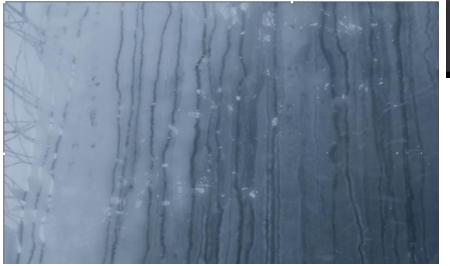
Welsh Arabic Bengali

Summary

advancing racial equality in housing and

improving air quality in homes.





Adaptation of buildings to users – cultural background



Behaviour

plays an important role missing in the decision-making



QUESTIONS...

THANK YOU



Scan the code For Further Information



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