

Zehnder Group UK x Healthy Homes Hub

Insights on Ventilation, Health, and Social Housing

15th January 2025



Landlords struggling with damp and mould repairs timescales, Ombudsman finds

Parents plead for help after girl, one, taken to hospital six times due to mould

Crack down on mouldy homes in England or more will die, warns doctors' body

Mould-ridden flat is going to kill me and my baby, says Clapham mother

Dangerous levels of damp and mould reported in hundreds of privately rented homes across London

Mould in your rental property? Your landlord could owe you compensation

Awaab Ishak: Death of boy, 2, due to mould in housing authority flat 'should never have happened', says Michael Gove

Family's 'trauma' after eight years in mouldy London council flat blamed for childrens' nosebleeds and breathing problems

'I considered putting my kid into care': one London family's fight against mould

Landlords called for action as half of renters struggle with mould

Nearly half of renters struggle with mould – survey

Social landlord said living with mould was 'OK and acceptable', report finds

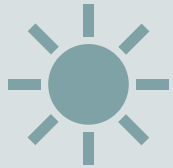
London family wins £20,000 after council blamed mould problem on 'lifestyle'

I'm 26 weeks pregnant but mould has taken over my council flat and me and my three-year-old daughter are suffering

Nearly a third of Londoners living in mouldy homes as energy crisis bites

Is this sensationalism?
Are these just headlines designed to sell newspapers?
Or is the problem with damp & mould as serious as we are led to believe?

Why?



At Zehnder, our mission is to provide solutions for an energy-efficient, healthy and comfortable indoor climates with focus on and around ventilation as core



We believe that every home should be a healthy home

“We are a global leader in providing solutions for an energy-efficient, healthy and comfortable indoor climate with focus on and around ventilation as core.”

Did you know?

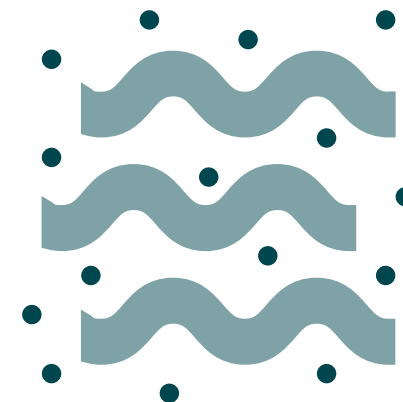
We spend 90% of our time inside and our worlds have become more home based.

But how do we know it is clean air we are breathing?

- Indoor air quality (IAQ) can be over FIVE times more polluted than outdoor air
- Energy efficient homes mean tighter insulation, so air flow is restricted
- We breathe 25,000 times a day and inhale an average of 11,000 litres of air

The air we breathe is full of harmful particulates:

- CO₂
- PM₁, PM_{2.5} and PM₁₀
- Volatile Organic Compounds (VOCs)
- NO_x gases



All of these can get into our bodies and cause poor health – it is an invisible risk!

What about mould?



Mould is caused by many things but mould via condensation is a cause of an imbalance of combined heating and ventilation



When buildings lack effective ventilation, excess moisture and stale air become trapped



Condensation occurs when warm, moist air encounters a cold surface, turning water vapour into liquid – no building is immune



Common in homes due to everyday activities that release significant amounts of moisture into the air



Without ventilation, moisture accumulates and condenses on the colder surfaces creating an ideal environment for mould to grow.



Mould releases spores, which are a form of particulate matter

FACT: A typical household can generate up to 24 pints of water vapour daily

Why should we be concerned?

A little condensation is not a reason to panic but ignoring it can lead to dangerous outcomes.

These damp conditions can create the perfect environment for mould and mildew growth, especially toxic black mould.



Effects on the building:

Beyond visible damage to a building's interior, like peeling paint and stains, persistent condensation can reduce the effectiveness of insulation materials.

This, in turn will reduce their thermal performance which will result in an increase in heating demands, energy costs, and environmental impact.



Effects on the occupant:

Mould releases spores into the air that can trigger respiratory issues and allergic reactions among occupants.

According to the Housing Health and Safety Rating System, mould poses a variety of health risks, from mild symptoms like sore throats to severe conditions like asthma, especially in the vulnerable and young children



With the harmful affects of mould outbreaks in buildings well known to us, our research study allowed us to dive deeper and understand more about the problems landlords and tenants face, how widespread the problems are, how it is currently being dealt with as well as what help they seek - and any barriers to change

Methodology

Leading, global market research firm that abides by and employs members of the Market Research Society and follows the MRS code of conduct and ESOMAR principles

Data collected between 11.11.2024 - 19.11.2024

Data sample set:

- 250 social housing landlords who have issues with mould in properties in their remit
- 500 social housing tenants who have issues with mould in their home
- The root causes of mould issues should NOT be limited only to these 'Rising damp', 'Unresolved leak', 'Damp', 'Penetrating damp', 'Flooding'

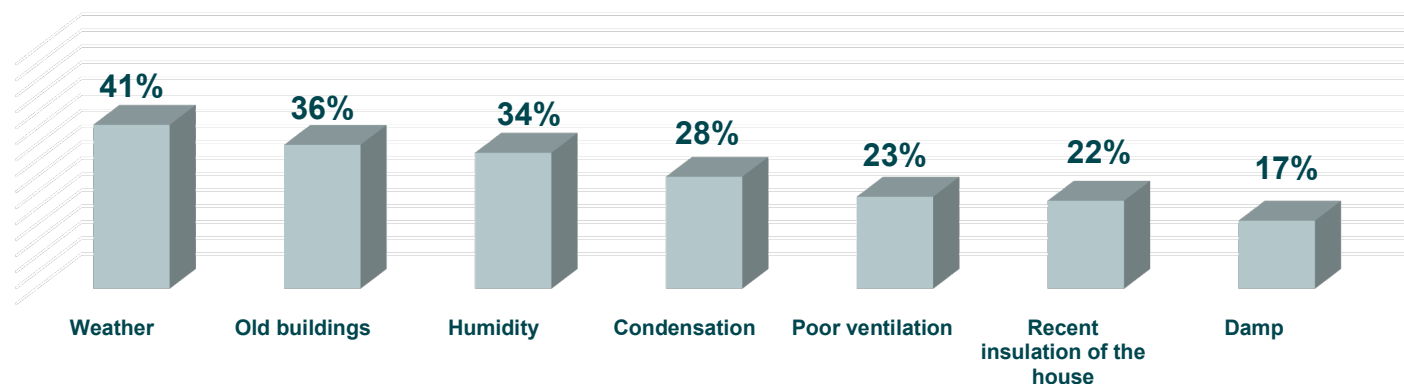


**The results were
eye-opening...**

Initial findings

- Almost **100%** of UK Social Landlords (99.2%) report having **mould issues in properties** under their remit.
- More than **1 in 10** state that **mould affects over half of their housing stock**.

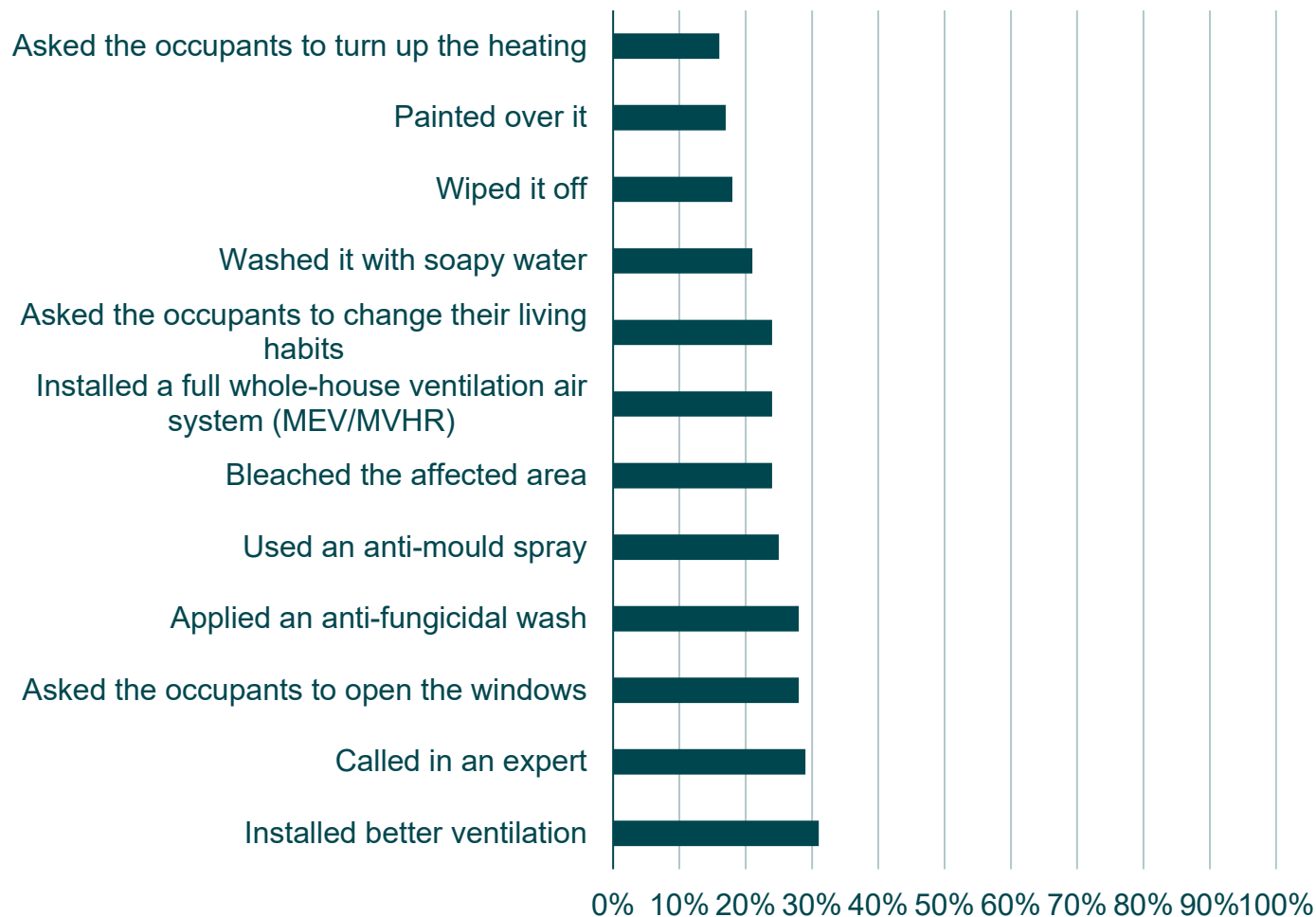
These are the main issues cited for mould by Landlords:



Landlords appear to be at a loss on how to deal with mould-ridden properties – it's the monster that landlords can't evict



To solve the mould problem in the properties Landlords have tried the following solutions



Landlords admitted that while some methods worked for a time

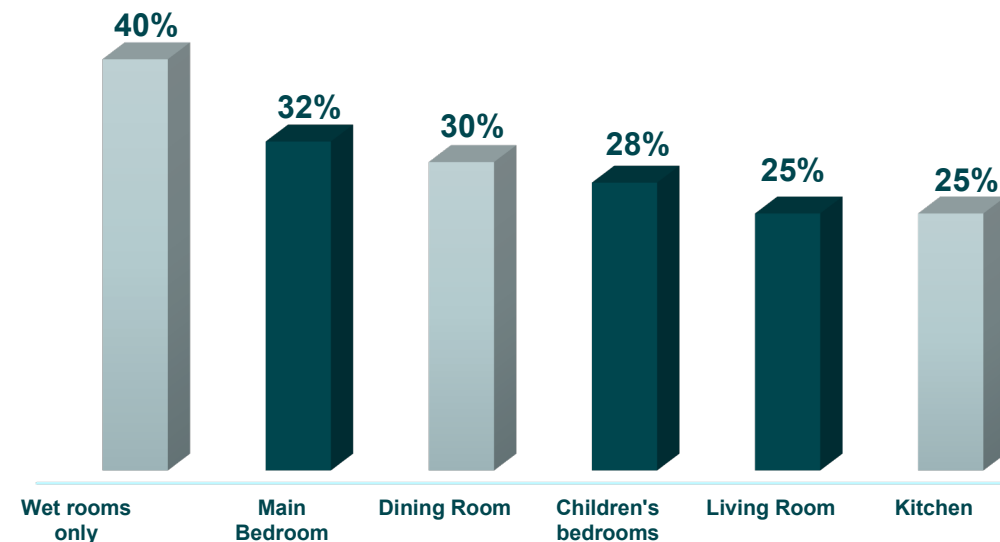
- 51% said the mould came back
- 16% said it didn't work at all and the mould is still there

**64% of Landlords feel frustrated and angry
57% feel worried and scared
30% feel embarrassed**

The breadth of the problem they are facing

- 46% of tenants living in social housing have mould present in 3-4 of their rooms.
- 12% have it in 1-2 rooms.
- Almost a third (32%) have it in 5-6 rooms.
- And 1 in 10 social housing properties are riddled with mould throughout (7-8 rooms)

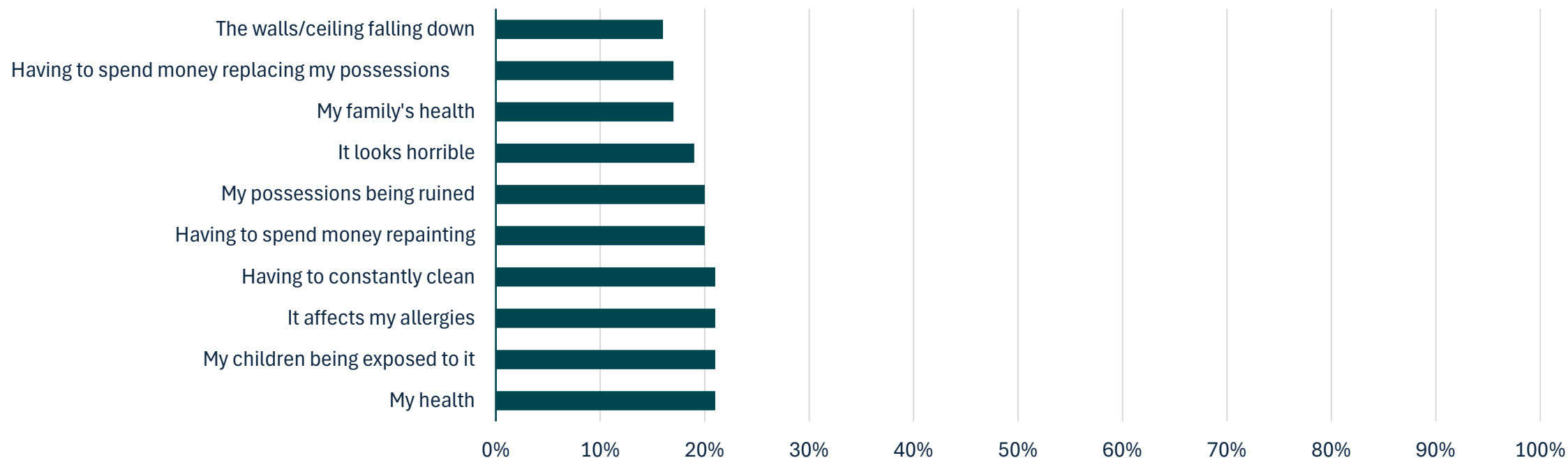
Rooms Affected by Mould



Mould doesn't just affect the wet rooms in these properties but also living and sleeping areas

An overwhelming 98% of tenants worry about the mould that is in their home

What are the key worries identified?



...and there are more problems

Tenants aren't helping matters by not speaking to their landlords and turning off what ventilation they have that could help the situation

Over a quarter of tenants (28%) have not sought external help in solving the mould outbreaks in their home.

83% of tenants have not spoken to their landlords about the mould issues.

Where are the knowledge gaps?

Extract Fan Education:

54% of tenants admitted to turning off the extract fans in their bathrooms and kitchen

Reasons are rooted in a lack of understanding:

36% claiming heat loss from the fan

34% running costs

33% noise

18% claim they just don't need them

Trickle Vents:

Over 1 in 10 tenants don't know if they have trickle vents on their windows **48%** of those that did, admitted that they keep them closed

Why is this the most important statistic?

Ventilation is key in maintaining a healthy living environment

Trickle vents allow for sufficient air flow through the property and extractor fans remove the build up of stale air

Without effective ventilation, we risk living in airtight boxes that turn bad in time

Barriers to success

Landlords see the following areas as key barriers to solving their mould problems:

Technology (37%)

Cost (36%)

Lack of knowledge / understanding (31%)

Local authority (29%)

Lack of support (28%)

Almost a third (27%) claim the property occupants are a barrier and 98% of landlords think the **problems with mould are associated with a lack of education for occupants** in how to live healthier in their home - e.g. drying washing inside, turning off the fans, keeping windows closed.

**It appears that the situation is at
a stalemate**

So, what can be done?



Managing condensation in homes, particularly in social and rented housing, requires a multi-faceted approach and the right balance of heating and ventilation



We must insulate properties for warmth and energy efficiency BUT this must be considered in partnership with an effective ventilation system to help regulate indoor humidity levels and promote a healthy indoor environment, minimising the conditions conducive to condensation.



Proper ventilation is more than just circulating air – its about bringing in clean, fresh air, which is essential for our physical and mental health.



Through an effective air system, we are looking to reduce the risk of pollutants, like carbon dioxide, VOCs and excess humidity, so we're not increasing the risk of mould.

Types of Ventilation: Natural vs Mechanical

dMEV



Window / Trickle Vents



MVHR



Latest Technology & Installation

1

Upgrade home ventilation – check the age of the extractor fans in your properties. If they are over 5-10 years old they might need replacing.

2

Communicate the cost - to run a modern Zehnder fan, 24-7, 365 days with two hours of humidity boost per day, **can cost under £1.65 per year**

3

Make sure fans are installed correctly – avoid flexible ducting, bends and creases that restrict air flow.

4

Protect natural ventilation points - make sure these aren't blocked by new carpets or furnishings or closed by tenants

How manufacturers can help

Zehnder Unity CV2.1APP

- Designed specifically created for use in tenancy homes
- Data-logging app to access stored performance data on the fan
- Enhances control and allows landlords to monitor usage of the fans in their properties
- Constantly running but at a low cost of less than £2 per year
- Whisper quiet
- Humidity Boost
- 'Do Not Disturb' setting and timer functionality, reduces heat loss, energy wastage and night-time noise





Tap in to
real time
information

No Disturbance Options

Enable Switch Live ☒

Boost Delay 2 minutes

Boost Restriction 20:00 Until 7:00

2

20:00

7:00

Product Info

PIN Protection	Off
Serial Number	123456789
Set Trickle	5 l/s
Set Boost	13 l/s
Current Airflow Rate	6 l/s
Current Motor RPM	836 rpm
Total Trickle Run Time	133 days
Total Boost Run Time	0 days
Avg Ambient Humidity	52%
Current Ambient Humidity	41%
Avg Ambient Temperature	22°C
Current Ambient Temperature	22°C
Power Off Cycles	37
TimerSMART Function	On
Fixed Overrun Timer	Off
HumidSMART Function	On
Delay On Timer	Off
Do Not Disturb Start Hour	Off

Tenant Education: Proactive Day-to Day Strategies

Maintain Indoor climate

Maintain a consistent indoor climate

- Ensure consistent heating during colder months to prevent condensation
- Advise tenants on using heating appropriately to balance warmth and ventilation
- Avoid only heating certain rooms as this can cause cold spots allowing mould to develop if left unchecked

Give the radiators some love

- While the heating is on check all radiators are hot from top to bottom
- Cold at the top and they might have air inside and need bleeding, cold at the bottom and they might be full of sludge and need flushing by a professional

Conduct Regular Inspections

- Regularly check areas prone to damp
- Look for early signs like peeling paint, discoloured walls or musty smells

Tenant Education

Encourage tenants to keep extract fans turned on

Catch breakouts early

Communication is key

Talk to tenants about positive living habits

Let us help!

Zehnder realises that, as an industry, we need to help landlords navigate this epidemic and arm them with information and tools available to make their properties healthier.

Effective IAQ management demands strategic investments in ventilation, insulation, education and collaboration among landlords, tenants, and stakeholders.

We are part of a bigger and quite complex puzzle where education, accessibility and collaboration is key.



Thank you!