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Damp and mould—the big picture. How do we tackle the damp and mould crisis in social housing: lessons from the UK

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The tragic death of 2-year-old Awaab Ishak, from extensive and prolonged exposure to damp and mould that had not been dealt with by the social landlord who owned the property, and other high profile news stories, have alerted social landlords to the damp and mould crisis in social rented homes across England. This paper discusses the findings from a 24-h knowledge exchange “Think Tank”, attended by representatives from social housing providers, charities, professional bodies, and residents from across England, to discuss how to tackle damp and mould in social housing. The event was made up of short informal presentations and group discussions in order to share good practice and develop a cross-sector understanding of damp and mould, its impacts, and how it can be tackled holistically. The event highlighted that damp and mould should firstly be seen as a building problem and that residents’ “lifestyles” should not be blamed. Tackling damp and mould should not be seen as the responsibility of one individual or department, all stakeholders need to work together to tackle the problem, ensuring tenants’ wellbeing is at the centre of every decision. Finally, damp and mould cannot be tackled in silo. Social landlords are facing a number of other major challenges, including the cost-of-living crisis, new building safety regulations, and the urgent need to decarbonise their stock. Landlords must think creatively in order to tackle these problems together and consider the big picture to ensure we are not walking towards the next housing tragedy. This paper brings together a wider contextual understanding of how the damp and mould crisis has developed in the UK, the impacts of damp and mould on residents’ physical and mental wellbeing, and the Think Tank findings, to suggest policy and practical recommendations for tackling the problem holistically.

KEYWORDS

social housing, social landlords, damp, mould, health and housing

1 Introduction: description of the nature of the problem being addressed and rationale for the proposed innovation

The English social housing sector is facing a damp and mould crisis, highlighted by the tragic death of 2-year-old Awaab Ishak in December 2020, from extensive and prolonged exposure to damp and mould that had not been dealt with by the social landlord Awaab’s family rented their home from. This report presents the findings from a 24-h knowledge-exchange “Think Tank” attended by social housing providers from across the country, charities, professional bodies, social housing residents, and technology companies

helping residents manage conditions within their homes to discuss how to tackle damp and mould in social housing. Charities specialised in helping low-income households save energy in the home, and professional bodies included the Chartered Institute of Housing and the Housing Ombudsmen. Relevant organisations were sent invites and opted to attend. The event was made up of short informal presentations and group discussions in order to share good practice, knowledge, experience and views. The aim of the event was to develop a cross-sector understanding of damp and mould, its impacts, and how it can be tackled holistically. The event took place at Trafford Hall, a residential training centre located in the Chester countryside, giving attendees the opportunity to reflect on the issue away from the pressures of their day-to-day roles.

2 Context (setting and population) in which the innovation occurs

The presence of damp and mould in the home can have a major impact on residents' physical and mental health. A report published by the Department for Levelling Up, Housing and Communities (DLUHC) as a direct response to the Awaab Ishak's Coroner's report outlines these risks if damp and mould are left untreated. The report aims to help both private and social landlords¹ understand these risks. Damp and mould produce allergens, irritants, mould spores and other toxins that are harmful to health (1). Even if there is no visible mould, dampness can still cause health problems, as the moisture increases the risk of microorganisms such as mould and other fungi, certain species of house dust mites, bacteria, or viruses growing. Damp and mould primarily affect people's lungs and airways but can also cause problems with the eyes and skin. The longer someone is living in a home with damp and mould the more severely they will be affected. People with underlying health conditions such as asthma, weakened immune systems, pregnant women, pre-school children and older people will be more vulnerable to its impacts (2). Effects of damp and mould include coughing, wheezing and shortness of breath, increased risk of airway infections, worsening or development of allergic airway diseases, irritation to the eyes, eczema, and fungal infections (3). In the most extreme cases, prolonged exposure to damp and mould can lead to death (4). Living in a home with damp and mould can also lead to worsening mental health, as a result of the stress of living in unpleasant conditions, anxiety related to the physical impacts, belongings being destroyed, the frustration of not having the problem properly dealt with, feeling blamed for the situation, and social isolation stemming from being embarrassed to have guests visit the home (5). DLUHC

hope that all landlords will read the guidance set out in this report and adopt the best practice it sets out which will "protect tenants' health and prevent avoidable tragedies like the death of Awaab Ishak happening to another family" (6). While this report was published after the Think Tank, participants had a good knowledge of the health impacts of damp and mould, and this report helps support this understanding and strengthens the need to act.

Following the inquest into Awaab Ishak's death, the Regulator for Social Housing produced a report outlining the extent of the damp and mould crisis in social housing in England. The report calculated 160,000 social housing homes were impacted by notable damp and mould, with a further 8,000 having damp and mould so severe that they "pose a serious and immediate risk to health" (7). Several factors have led to this situation. The UK has some of the oldest housing stock in Europe, with the worst performing for energy efficiency (8). Research by (9) investigating housing conditions across Europe shows found a "clear negative association between construction year and reported and observed dampness and molds". In the UK funding cuts, a lack of investment in existing homes, and pressures on social landlords to build new homes means there has been no major investment in existing stock since the Decent Homes Programme, which ran from 2000 to 2010. The cost-of-living crisis has left social housing tenants increasingly struggling to afford to heat their homes, which can lead to higher levels of condensation, damp, and mould. Finally, the more extreme weather the UK has seen over recent years, with wetter, hotter summers and colder winters, exacerbates the risk of damp and mould occurring.

In reaction to the death of Awaab Ishak, and to tackle the damp and mould crisis, the government have introduced Awaab's Law as part of the new Social Housing Regulation Bill². Under the new law, social landlords will have to investigate and fix reported health hazards within specific timeframes. This process will form part of all tenancy agreements so tenants can hold landlords to account by law if they do not respond, or if they do not adequately fix the problem. A consultation opened in October 2023 to agree the timescales for response. In order to deliver on this Bill, social landlords will have to quickly adapt how they respond to and manage damp and mould within their own organisations (10).

Damp and mould can occur in any home, whether owner-occupied, private rented, or social rented. All landlords, private or social, have a responsibility to ensure that their homes are "fit for human habitation". However, it is much easier for the government to enforce standards in the social housing sector, as social landlords are regulated by the Social Housing Regulator,

¹Social Landlords- A social landlord is a housing association or local authority providing housing at below market rents normally to people on low incomes in housing need. Homes are rented on a not for profit basis.

²The Social Housing Regulation Bill 2023 is an Act delivered by the British government that aims deliver "transformational change" for social housing residents and fulfil the Government's 2019 manifesto pledge to empower residents, provide greater redress, better regulation and improve the quality of social housing" <https://commonslibrary.parliament.uk/research-briefings/cbp-9659/>.

and social housing residents have redress to the Housing Ombudsman if their social landlord does not resolve the issue. The Regulator and the Ombudsman can both issue fines or other forms of enforcement to a social landlord. In practice, it is much harder for private landlords to be held accountable for damp and mould problems in their rented properties. Furthermore, the social housing population is increasingly vulnerable to the impacts of damp and mould. In England 54% of social renters live in a household with at least one person with a disability, compared to 30% of private renters (11). Social renters are more likely to be living in poverty, 46% compared to 33% of private renters, increasing their risk of not being able to afford to heat their home to an adequate standard, exacerbating the risk of damp and mould (12).

3 Detail to understand key programmatic elements

The Think Tank was organised by the Housing Plus Academy, a knowledge exchange programme organised by LSE Housing and Communities and the National Communities Resource Centre, supported by leading housing associations, the Chartered Institute of Housing, and the National Housing Federation. The Think Tank model is based on the idea of mutual knowledge exchange, bringing together representatives at different levels across different organisations, and allowing participants to learn from each other. The events use participatory learning techniques and showcase live examples of innovation, best practice, and problem-solving. Feedback from events shows that participants leave with new ideas, a better understanding of the topic, and feel empowered to make a difference. The events cover a range of topics shaped by an advisory group of leading housing associations and a constant monitoring of housing media channels (13). Prior to each event the team will carry out desk-based research into who the event might be relevant to and send out invites, and participants opt to attend. Each event will have between 20 and 30 attendees, this allows for a range experience while also allowing everyone the opportunity to contribute. Over the event the research team make notes to record the main points of discussion these are then compiled into a “headline report” summarizing the conversations. Headline reports are always checked with all participants for accuracy before being published more widely. This report forms the basis of this article.

4 Discussion section that shares practical implications, lessons learned for future applications

A number of practical solutions to the damp and mould crisis were discussed at the Think Tank, both to prevent damp and mould forming and managing it once it has appeared. It became clear that there is no single solution to tackling damp and mould, and it cannot be tackled in silo. Participants agreed that preventing damp and mould in the first place was better than a

reactive approach, but landlords need an efficient and effective response when damp and mould does occur.

4.1 Early treatment of damp and mould

As soon as possible after a damp and mould report is made, a full property survey should take place to identify the type of damp and mould and possible causes.

Where there is black mould in the home, it should be removed as a matter of urgency, as it can be very harmful to people’s health. Black mould should be removed even where it is likely to come back in a short period of time, and it should be removed whenever it appears. Mould washes and shield products are not long-term solutions, but they can buy maintenance teams and surveyors time to develop a plan to resolve more deep-rooted problems.

Where damp and mould are a result of a one-off issue, e.g., a leak, this should be rectified as soon as possible. Damp and mould that requires more intensive solutions will require a more proactive case management approach.

4.2 Buildings first

Social landlords are increasingly moving to a “building first” approach when investigating reports of damp and mould. This means that landlords first assume that there is a problem with the building/structure that is causing damp and mould and check for any structural problems or hazards in the first instance, rather than assuming that the residents’ “use” of the building is the problem. If the building is found to be structurally sound, they will then work with residents to understand how they use their home. This follows on from the Housing Ombudsman’s report into Awaab Ishak’s death, which is very clear that landlords should not put the blame on resident’s “lifestyle” (14), as had occurred in Awaab’s family’s case.

4.3 Holistic case management

Damp and mould cases should be treated holistically through a case management approach that draws on the expertise of multiple teams, as and when they are needed. Damp and mould cases will always require an element of housing management and resident engagement, even where the cause of damp and mould is fully structural. Tackling damp and mould involves both asset management and housing management.

Some social landlords are now recruiting specific teams to deal with damp and mould. It can be helpful to recruit for roles based on “soft skills” e.g., communication, personality, and empathy, which help them to engage with residents, rather than the technical know-how of dealing with damp and mould, which can be taught.

Having a case manager that will take ownership of the problem, can advocate for the tenant with contractors and technical surveyors, relay information in an accessible way, and keep track of timelines and work, can make a significant difference to how well a damp and mould problem is resolved.

4.4 Monitoring internal conditions

The “danger spot” for a house developing damp and mould is where it is “cold but humid”. There are different types of systems that can monitor the conditions inside a home, and highlight any potential concerns, for example Switchee an easy-to-use thermostat which also collects data on the internal conditions inside a tenant’s home which can then be viewed by the social landlord. These have an upfront cost but can save the landlord money in the longer-term by informing a proactive maintenance approach. They can also be used to identify households that may be in fuel poverty, as the monitoring data will show if the temperature in a home is constantly low, especially in winter, which may indicate that the resident cannot afford to put the heating on. As well as providing information about specific homes at risk, it can help landlords understand if any particular blocks or style of build are more at risk of developing damp and mould.

Monitoring software and devices can be very helpful for social landlords and residents. However, greater monitoring and data collection is likely to lead to an increase in damp and mould related reports that need actioning. Landlords must reserve sufficient resources and teams to respond to reports that are generated by the additional monitoring and data collection. Data collection without action is almost meaningless.

4.5 Data, data, data

Data is key in tackling damp and mould, with the Housing Ombudsman describing data as a “silver bullet” against damp and mould. Multiple strands of data need to be collected, compiled, and stored in an accessible way, to ensure that it is available to all relevant parties:

- Data about the type of properties, age of properties, history of works done, patterns across the stock.
- Data about residents, household make up, any health conditions or vulnerabilities, whether there are children in the home.
- Data about damp and mould problems specifically—proportion of home affected by damp and mould, the length of time it has been a problem, type of damp/mould, previous damp and mould treatment.
- Data on conditions in houses, such as the temperature and humidity

4.6 “Find your silence”

Social landlords need to “find their silence” and contact the silent majority to understand the true extent of damp and mould in their properties. Some residents may not want to report a problem or may put up with damp and mould when they do not need to. This can be for many reasons, including fearing what might happen if they do report, or coming from a culture where making a complaint against someone in authority can have serious consequences. Tenants who have fallen behind on rent may fear being found out

and evicted if they come forward reporting a problem. This has become a particular challenge in the cost-of-living crisis. Landlords need to be proactive, and go out and find where the problems are, rather than simply relying on residents to report it themselves.

4.7 Every visit counts

An “every visit counts” approach means that any time a staff member has an interaction with a resident inside their home, they check the home for any signs of damp and mould, or disrepair. Officers and operatives, including contractors, should be trained to pick up and identify damp and mould issues, even when they are not sent to a property for a specific damp and mould issue. They then need to report the problems back through a clear chain of command. Some organisations are adopting a similar response to the safeguarding of children, making it everyone’s responsibility to identify problems, and placing staff on a duty to report. However, it is important this for approach to be carefully managed to avoid creating a “blame culture”.

Social landlords should partner with other support agencies working within their areas, such as social services, adult support services and care organisations, asking them to let the landlord know about damp and mould issues.

4.8 Assessing priority

Landlords need a clear process and criteria for assessing the priority of different cases. Social landlords need to have good data, be aware of all cases of damp and mould, and be able to assess any case against the agreed criteria.

Criteria should include health vulnerabilities, particularly where they can be exacerbated by damp and mould, e.g., where there is a child with asthma in the home. Listing the aggravating factors in a scoring matrix will help to determine priority, and help operatives to act quickly on urgent cases, rather than be overwhelmed by too many cases. Aggravating factors should include mental health impacts, and the proportion of the home affected by damp and mould. However social landlords should not prioritise too rigidly and must think holistically about each case.

Having robust prioritisation and assessment criteria can be particularly valuable in cases that are raised in the media. The way a case has been assessed and prioritised should be communicated to the media, so that there is a clearer understanding of why a specific case hasn’t yet been dealt with, explaining plans for how it will be solved, timescales etc.

4.9 Engaging with residents

Engagement with residents has to be effective, respectful, and empathetic. It must be both proactive and reactive: informing residents about the dangers of damp and mould, how to identify it, and what to do when they spot it; and how to react, when a damp and mould case is reported.

One suggestion is that social landlords create a priority needs register, similar to energy providers' priority needs register, so that vulnerable tenants can access additional support and advice and have a priority support line to contact when dealing with damp and mould, or other disrepair issues.

Some social landlords are taking an organisation-wide approach to damp and mould and mandating that all staff undertake damp and mould training so that if an issue is raised, they will be informed and able to help, whether they are caretakers, resident engagement officers, housing officers, or the Chief Executive.

Tackling damp and mould means working in people's homes, and understanding and sympathising to the way people live. Where people are involved, situations can be complex and complicated. Data can tell part of the story, but a person-centred approach is needed to get the solution right for the property and for the person living in it. Social landlords need to be realistic about people's use of their homes, and not put unrealistic expectations onto residents e.g., advising people to move beds away from walls, which restricts space for other furniture.

Communication around damp and mould needs to involve a range of engagement methods, there is "no one size fits all" way to communicate. Social landlords need to check that the residents understand the messages they are sending out, that communication is clear and straightforward, and that they are not using puzzling acronyms or technical jargon. Social landlords may find it useful to engage with a trusted, independent charity to support communication with residents and provide third party advice. This can offer a fresh perspective and can be particularly valuable in reaching out to residents who are less trusting of the landlord.

4.10 Retrofit is vital to of the longer-term solution

Retrofit, when done well, contributes to the damp and mould solution, as well as increasing the energy efficiency of buildings. Climate change is a factor in damp and mould. The UK has cold and damp climate generally, but the changing climate means that we are also facing rising humidity. This is a recipe for damp and mould (Cold + Humid = Damp).

Net zero plans offer an opportunity for retrofit measures that will limit damp and mould, so social landlords should look at their net zero plans through a "damp and mould lens".

There are several things that are part of retrofit which reduce the likelihood of damp and mould occurring:

- Insulation
- Ventilation
- Reducing moisture e.g., in walls and basements, or through windows.

Alongside the physical retrofit, residents need to be educated in any new technologies that are installed to make the most of their retrofitted home, and to avoid problems further down the line. A full handover, with accompanying information sheet, easy to use videos, and other useful tips can make a major difference to how well a retrofit project works. Retrofit projects need to be

monitored and measured, to understand the full impact of the measures taken.

There is some funding available for retrofit through the Social Housing Decarbonisation Fund, but not enough. Architects like Energy Conscious Design (ECD) can support the social housing sector by explaining to social landlords what "archetypes" they have within their stock. They can use the template to follow and adapt, without being overwhelmed by the quantity of homes that need retrofitting. An archetype of a home can be used as a pilot, to show what is possible on a home of that type, and then the plans can be adapted for wider roll-out based on funding and resources available.

4.10.1 Challenges

There are a number of challenges social landlords face in delivering on the solutions outlined above. Participants at the Think Tank agreed that they are facing significant competition for skilled operatives and contractors that can deal with damp and mould. When landlords compete for the same contractors, this causes delays for residents and pushes up costs. Furthermore, damp and mould are seasonal problems, with a higher demand for services in the winter months, meaning that those who maintain damp and mould teams year-round face high costs with lower workloads during summer months. For those landlords that employ contractors seasonally, there is higher competition and less available resources.

As well as the damp and mould crisis, landlords face a series of other challenges, including fire safety, the climate emergency, and cost of living, which all have an impact on budgets, which are being increasingly stretched due to rising inflation. A recent report from the Regulator of Social housing calculated cost per social home has increased by 14% due to inflation, meaning landlords will have to make difficult decisions about what to prioritise (15). Landlords must think creatively about how to respond to these challenges with stretched resources and ensure problems are not tackled in silos. For example, if work is going on to fix mould problems, this may provide a good opportunity to improve the insulation in a property, thereby also reducing its carbon impact.

Several of the recommendations outlined above create additional work for staff, for example "finding your silence" engaging with residents who might not otherwise come forward to ask for help, will take significant effort and time from staff to identify and reach out to those tenants. A recent survey of social landlords found that 77% are struggling to recruit enough staff, which is placing increasing pressure on existing staff. Organisations may feel it's not realistic or fair to place this added workload on their employees.

4.10.2 Conclusion

Damp and mould can be incredibly harmful to the physical and mental health of social housing residents, and social landlords must work towards eliminating and managing damp and mould problems. It is not a problem that will go away quickly, as the scale of the issue is huge, and will take time to get under control. It will also require active, ongoing maintenance to prevent it reoccurring. Social landlords know the solutions and know that they have to get better at applying them, but there is a worry about what will

happen in the meantime while the issues are being brought under control. The sector needs to communicate clearly what it is doing, what it plans to do, and share successes and good practice.

With new legislation coming in, it is important that the social housing sector is aware of the danger of damp and mould becoming a “tick box exercise” that is target driven, as this risks missing the full picture. The sector needs to be outcome driven, not target driven. It is clear what success in tackling damp and mould looks like: the resident is able to live in a decent, healthy, dry home. We should keep this outcome at the fore front of our minds, whatever actions we take. On going evaluation will be needed on both an organisational and national level, to ensure new legislation is having the desired outcomes. This will need to cooperation from both social landlords, the Social Housing Regulator, The Housing Ombudsmen and central government.

On going monitoring and research is needed to identify the most effective solutions to tackling and managing damp and mould, and to understand the impacts of new legislation. Cost benefit analysis will help identify the potential benefits of dealing with damp and mould early, for example reducing the need for major works, and the most cost effective ways of dealing with damp and mould. This is particularly important in the financial environment social landlords are currently working in. It will also be important to look at the wider costs of dealing with damp and mould effectively, for example reducing pressures on NHS services due to improved health outcomes.

While these findings are mainly relevant to the UK context due to the age of housing stock, years of underinvestment in the social housing and the climate exacerbating risks of damp and mould. Damp and Mould is not a UK specific problem and lessons can be drawn on from social landlords internationally.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

References

1. WHO. *WHO Guidelines for Indoor Air Quality: Dampness and Mould*, s.l. Copenhagen: World Health Organisation (2009).
2. NICE. *Indoor Air Quality at Home*, s.l. London: National Institute for Health and Care Excellence (2020).
3. May, N. U. M. a. M. C. *Health and Moisture in Buildings Report*. s.l. London: UK Centre for Moisture in Buildings (2019).
4. Clark SN, Lam HCY, Goode EJ, Marczylo EL, Exley KS, Dimitroulopoulou S. The burden of respiratory disease from formaldehyde, damp and mould in English housing. *MDPI*. (2023) 10(136):1–24. doi: 10.3390/environments10080136
5. Liddell CGC. *Living in a Cold and Damp Home: Frameworks for Understanding Impacts on Mental Well-Being*, s.l. Ulster: Ulster University (2014).
6. DLUHC. Press Release: Government to Deliver Awaab’s Law. (2023). Available online at: <https://www.gov.uk/government/news/government-to-deliver-awaabs-law> (Accessed February 2024).
7. Cuffe G. “Notable” damp and mould affects up to 160,000 social homes in England, says regulator, s.l.: Inside Housing (2023).
8. Hodgkin R, Sasse T. *Tackling the UK’s Energy Efficiency Problem*, s.l. London: Institute for Government (2022).
9. Norbäck D, Zock JP, Plana E, Heinrich J, Tischer C, Jacobsen Bertelsen R, et al. Building dampness and mold in European homes in relation to climate, building characteristics and socio-economic status: The European Community Respiratory Health Survey ECRHS II. *Indoor Air*. (2017) 27(5):921–32. doi: 10.1111/ina.12375
10. DLUHC. Understanding and Addressing the Health Risks of Damp and Mould in the Home. (2023). Available online at: <https://www.gov.uk/government/publications/damp-and-mould-understanding-and-addressing-the-health-risks-for-rented-housing-providers/understanding-and-addressing-the-health-risks-of-damp-and-mould-in-the-home-2> (Accessed February 2024).
11. DLUHC. English Housing Survey 2021 to 2022: Headline Report, s.l.: Gov.uk, York (2022).
12. JRF. *UK Poverty 2022*, s.l. Joseph Rowntree Foundation (2022).
13. LSE Housing and Communities. *Housing Plus Academy*. (2023). Available online at: <https://sticerd.lse.ac.uk/lsehousing/research/Housing-Plus-Academy/> (Accessed February 2024).
14. Housing Ombudsmen. *Spotlight on: Damp and Mould- Its not a Lifestyle*, s.l. London: The Housing Ombudsmen (2021).
15. Wilmore J. *Landlords’ Average Spend on Social Homes Jumps 14% as Inflation Bites*. London: Inside Housing (2024).

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