

## DAMP AND MOULD – SOME FIGURES

The share of dwellings with damp problems in England has decreased from over 10% in 2003 to just under 4% in 2021<sup>i</sup>. Nevertheless, a substantial number of households remains affected. In 2020, 941,000 occupied homes had damp. While the problem is greatest in the private rented sector (where, in 2020, close to 10% of occupied dwellings had damp problems), it is not negligible in local authority and housing association homes, where approximately 5% are affected respectively<sup>ii</sup>.

## CAUSES OF DAMP & MOULD, HEALTH EFFECTS AND IMPLICATIONS

Damp and mould thrive in cold and insufficiently ventilated spaces. They are caused and exacerbated by excess moisture. Moisture can be caused by a variety of factors including leaks, rising damp, and condensation<sup>iii</sup>.

By implication, adequate temperature and ventilation are key to preventing and reducing damp and mould. The challenge that maintaining adequate levels of warmth poses to households experiencing fuel poverty is not new. Energy price rises in the recent Cost of Living Crisis have exacerbated this and led to an increase in the number of households affected. Those on low incomes are hit hardest, with social housing tenants disproportionately represented among lower income groups. A 2018 review<sup>iv</sup> found that 45% of social housing tenants in England were earning the lowest fifth of income, and 44% lived in poverty after housing costs were taken into consideration<sup>v</sup>.

To reproduce, mould produces airborne particles known as spores. Inhaling mould spores or touching mould can cause a reaction in those susceptible. Damp and mould are associated with a number of health effects, including respiratory symptoms, asthma, allergies, and immunological reactions<sup>vi</sup>. They can also affect mental health, although the evidence base for this seems to be more limited.

## DEFINITIONS OF MENTAL HEALTH/WELLBEING

*Positive mental well-being or mental health is defined as “a state of well-being in which the individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community” (WHO, 2014). The absence of positive mental well-being does not imply the presence of mental disorder; people can already be at risk of poor outcomes if their mental health is unusually low without experiencing mental disorders such as anxiety or depression (Campion et al., 2012).<sup>vii</sup> (p.383)*

## MENTAL HEALTH AND HOUSING CONDITIONS/DAMP & MOULD

Singh et al.'s (2019)<sup>viii</sup> review of longitudinal studies on housing disadvantage and mental health outcomes reinforces housing as a key social determinant of mental health. While not focused on damp and mould specifically, it indicates that prior exposure to housing disadvantage is consistently associated with worse mental health. It also highlights a gap in knowledge around the causal mechanisms through which different dimensions of housing disadvantage lead to poor mental health.

In a systematic review on the relationship between living environment and depressive mood, Rautio et al. (2018)<sup>ix</sup> found that ‘house/built environment’ was the one (out of nine) aspects of the living environment where adverse conditions were most clearly related to depressive mood. They cite evidence of a relationship between minimal or moderate dampness or mould and depressive symptoms<sup>x</sup>.

The study referred to by Rautio et al. identifies lack of a sense of control over one’s home as a mechanism leading to poor mental health outcomes<sup>xi</sup>.

In a study of the mental health impacts of poor quality housing during the UK’s first Covid-19 lockdown, Newton et al. (2022)<sup>xii</sup> highlight damp and mould as factors identified by private renters as key stressors impacting on their mental health. Residents reported the physical and mental health impacts of living with damp and mould, talking of ‘stress’, ‘anxiety’ and ‘frustration’ associated with living in the constant presence of damp, being unable to leave the home, with no prospect of the situation being addressed. Their experiences were underpinned by a sense of powerlessness and limited control.

Pevalin et al. (2017)<sup>xiii</sup> examined whether persistence of poor housing affects mental health over and above the effect of current housing conditions. They highlight damp as a housing problem that may be especially difficult to rectify, and it was included in the list of housing problems they measured. The authors conclude that mental health worsens as the persistence of housing problems increases, and that mental health effects of persistent housing problems vary by tenure type, with social renters and outright owners most negatively affected. They argue that this adds to existing evidence that shows that living in poor quality housing for extended periods of time negatively affects mental health.

Liddel and Guiney (2015)<sup>xiv</sup> carried out a review of studies that have explored relationships between mental wellbeing and how this may be affected by living in cold and damp homes. Their focus was on intervention studies in which heating and insulation improvements were carried out and impacts on wellbeing assessed. The authors conclude that the impacts of cold and damp living conditions on well-being are wide-ranging, incorporating stress, positive mental health (e.g. quality of life) and negative mental health/mental disorder (e.g. depression, anxiety). Despite the small number of studies, they argue, there is sufficient evidence to conclude the following:

- Cold and damp homes are associated with sub-optimal mental wellbeing.
- The association stems from the stressors that are associated with being unable to afford solutions to cold and damp living conditions.
- These stressors are diverse. They commonly include low income, fear of debt, damage to possessions from mould and damp, stigma, and social isolation.
- Equally diverse are the risks to wellbeing that they generate, encompassing effects measured in terms of both (positive) mental health (e.g. health-related Quality of Life) and (negative) mental disorder (e.g. depression, anxiety).

The authors hypothesise a model (Fig.1) that identifies a cycle of risk to health that is initiated by living in homes that are routinely cold and damp as a consequence of energy needs not being affordable.

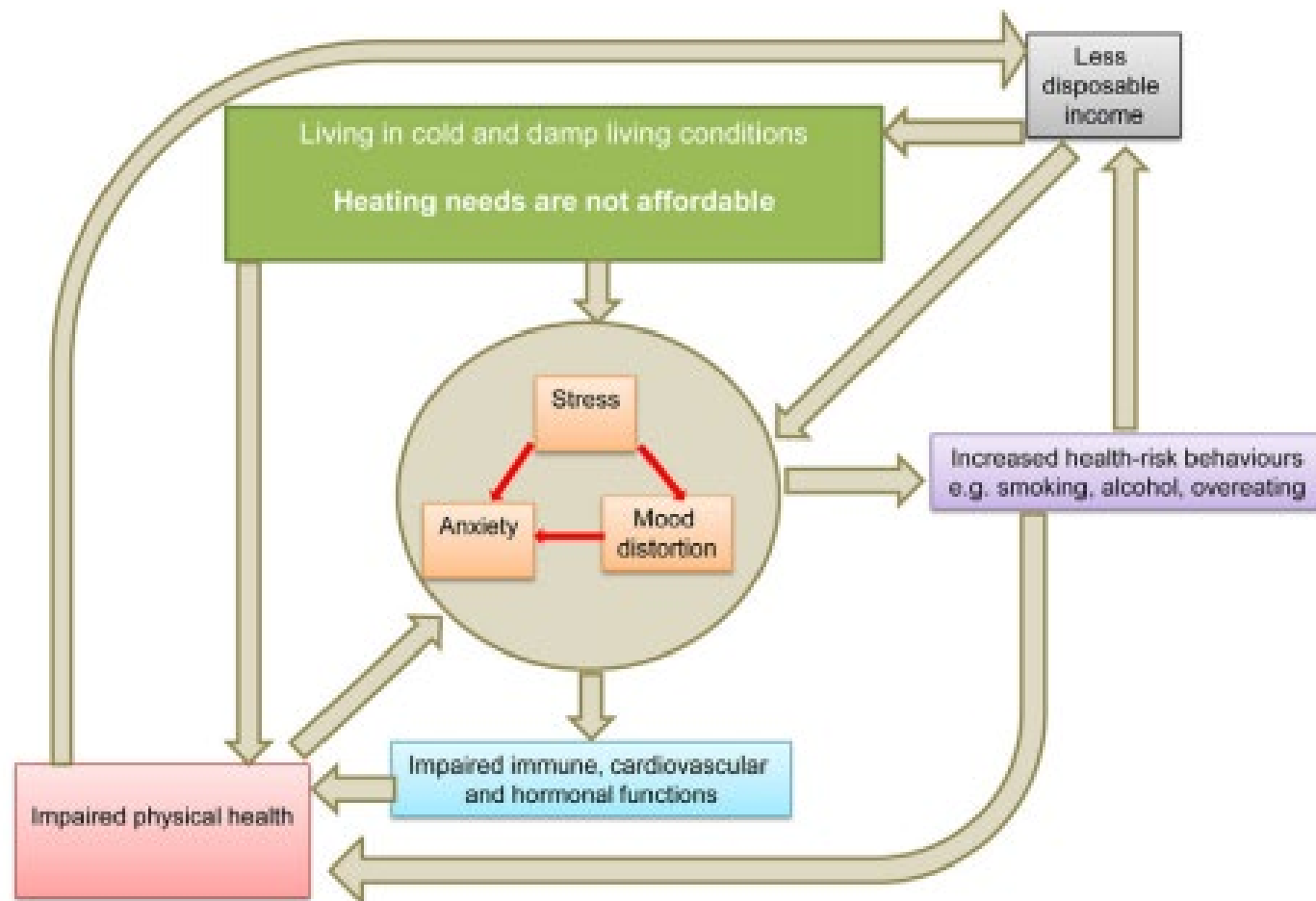


Fig.1: Hypothesized cycle of risk, initiated by living in a cold and damp home<sup>xv</sup>

Liddell and Guiney's model is rooted in the assumption that living in a damp and cold home is a source of cumulative stress. It presents an accumulation of stressors from various sources that, in combination, increase vulnerability to poor health and reduced wellbeing. According to the model, the combined effect of living in a cold and damp home and having unaffordable heating needs triggers both physical health problems and stress, and sets in motion a cycle of stress, anxiety and mood distortions. This in turn can further affect physical health negatively, and this in turn feeds back into the stress cycle<sup>xvi</sup>. It can also increase health-risk behaviours that, as well as impaired physical health, reduce disposable income, which again affects the affordability of heating, and directly impacts on the stress cycle.

Boomsma et al. (2017)<sup>xvii</sup> review the literature on the effect of cold and damp housing on mental health and wellbeing: It has been found that not being able to maintain a warm home, seen by many householders as a basic need, and experiencing a cold home can have a negative effect on mental health and wellbeing<sup>xviii</sup>. Among the broad range of mental health issues that have been associated with living in a cold or damp home are worries about energy bills<sup>xix</sup> and about physical health<sup>xx</sup>, increased depression and worry<sup>xxi</sup>, and chronic thermal discomfort<sup>xxii</sup>. It has been suggested that stressors linking to mental health are often associated with the affordability of solutions to housing problems, such as the affordability of heating, or installing insulation improvements<sup>xxiii</sup>. In other words, affordability is a key concern.

Building on Liddell and Guiney, Boomsma et al. echo the complexity of the link between housing conditions, including damp and mould, and health and wellbeing. As suggested by Liddell and Guiney's model, their study found that the combination of housing problems including condensation, damp and mould, and concerns about the affordability of energy, related to poor health and reduced wellbeing. The findings support an indirect effect of housing problems upon health and wellbeing: householders who experienced housing problems were more likely to express difficulty with affording their energy bill, these affordability concerns in turn were associated with reporting poor general health and reduced well-being.

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<sup>i</sup> [Homes with damp problems in England | Statista](#)

<sup>ii</sup> [English Housing Survey: Housing quality and condition, 2020 \(publishing.service.gov.uk\)](#)

<sup>iii</sup> [Can damp and mould affect my health? - NHS \(www.nhs.uk\)](#)

<sup>iv</sup> [Social Housing: Evidence Review - White Rose Research Online](#)

<sup>v</sup> [Exploring the relationship between housing concerns, mental health and wellbeing: a qualitative study of social housing tenants | Journal of Public Health | Oxford Academic \(oup.com\)](#)

<sup>vi</sup> [Can damp and mould affect my health? - NHS \(www.nhs.uk\)](#)

<sup>vii</sup> ["Damp in bathroom. Damp in back room. It's very depressing!" exploring the relationship between perceived housing problems, energy affordability concerns, and health and well-being in UK social housing | Elsevier Enhanced Reader](#)

<sup>viii</sup> [Housing Disadvantage and Poor Mental Health: A Systematic Review - American Journal of Preventive Medicine \(ajpmonline.org\)](#)

<sup>ix</sup> [Living environment and its relationship to depressive mood: A systematic review - Nina Rautio, Svetlana Filatova, Heli Lehtiniemi, Jouko Miettunen, 2018 \(sagepub.com\)](#)

<sup>x</sup> [Dampness and Mold in the Home and Depression: An Examination of Mold-Related Illness and Perceived Control of One's Home as Possible Depression Pathways | AJPH | Vol. 97 Issue 10 \(aphapublications.org\)](#)

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- xii [Understanding the mental health impacts of poor quality private-rented housing during the UK's first COVID-19 lockdown - ScienceDirect](#)
- xiii [The impact of persistent poor housing conditions on mental health: A longitudinal population-based study - ScienceDirect](#)
- xiv [Living in a cold and damp home: frameworks for understanding impacts on mental well-being \(ulster.ac.uk\)](#)
- xv [Living in a cold and damp home: frameworks for understanding impacts on mental well-being \(ulster.ac.uk\)](#)
- xvi ["Damp in bathroom. Damp in back room. It's very depressing!" exploring the relationship between perceived housing problems, energy affordability concerns, and health and well-being in UK social housing | Elsevier Enhanced Reader](#)
- xvii ["Damp in bathroom. Damp in back room. It's very depressing!" exploring the relationship between perceived housing problems, energy affordability concerns, and health and well-being in UK social housing | Elsevier Enhanced Reader](#)
- xviii [Keeping warm and staying well: findings from the qualitative arm of the Warm Homes Project - Harrington - 2005 - Health & Social Care in the Community - Wiley Online Library](#)
- xix [Coping with low incomes and cold homes - ScienceDirect](#)
- xx [Understanding factors influencing vulnerable older people keeping warm and well in winter a qualitative study using social marketing techniques.pdf](#)
- xxi [Impact of fuel poverty on health in Tower Hamlets | 16 | Cutting the C \(taylorfrancis.com\)](#)
- xxii [Psychosocial routes from housing investment to health: Evidence from England's home energy efficiency scheme - ScienceDirect](#)
- xxiii [Fuel poverty and human health: A review of recent evidence - ScienceDirect](#)