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# Impact of Housing on Health of BCYP

Thank you ( including Laura Drury and Adam Harford and Prof Ian Sinha )

Who are we ? Why us ?

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1. What is the opposite of quality housing and where do we typically see this in Lancaster and District ?
2. What do we see in our areas of deprivation ?
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4. What can landlords do if they have safeguarding concerns ?
5. What can landlords do to help ?
6. Where can landlords go to find training help and support ?

# System-wide improvements in child lung health:

# Report for Barrow-in-Furness

Dates: 15-18 July 2024
Author: Ian Sinha (ian.sinha@alderhey.nhs.uk)

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# HOUSING AND HEALTH DATA FOR LANCASTER DISTRICT

Analyzing housing conditions and health outcomes locally

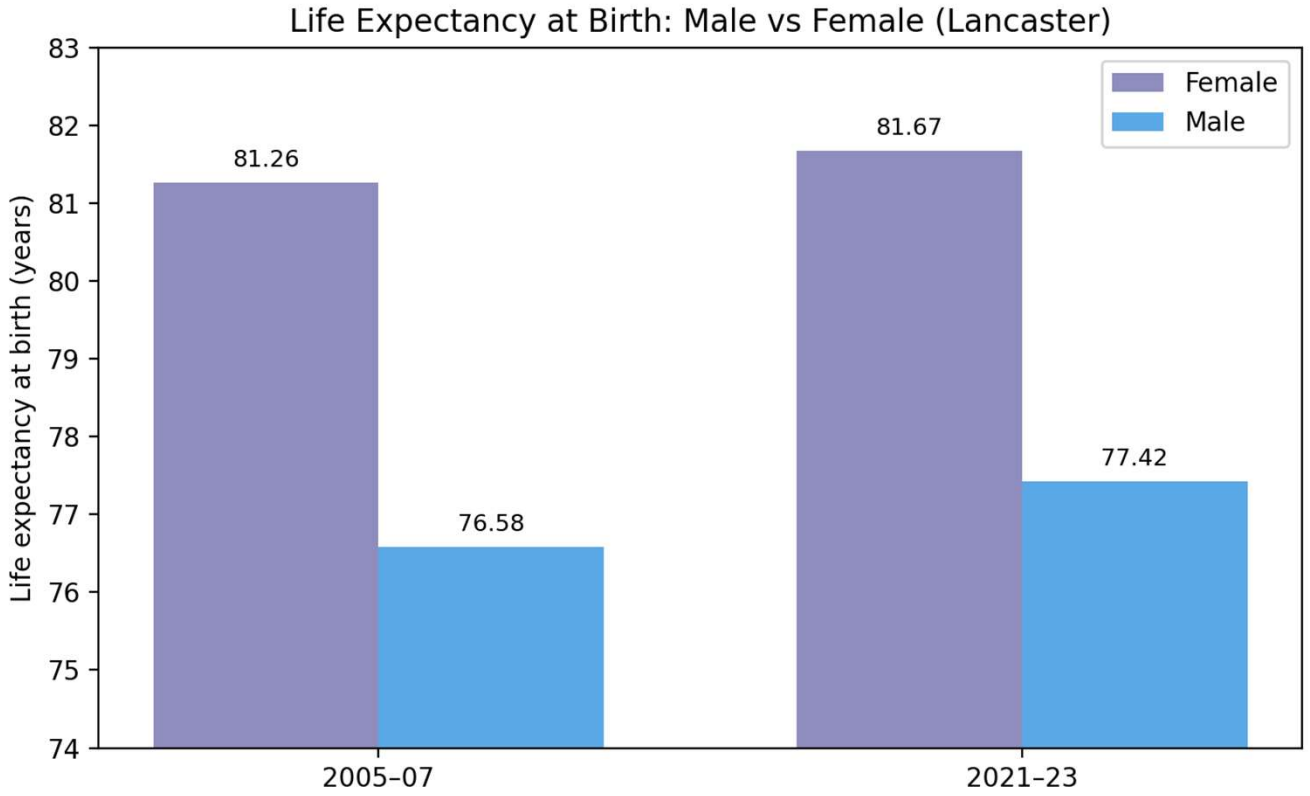
# Home Ownership and Renting

| CATEGORY | PERCENT |
| --- | --- |
| **Private Rent** | 21.7% |
| **Social Housing** | 10.3% |

# Housing Types Distribution

| TYPE | PERCENT |
| --- | --- |
| **Detached/Semi** | 60.5% |
| **Terraced** | 25.3% |
| **Flats** | 13.8% |

# Life Expectancy at Birth: Male vs Female (2005–07 vs 2021–23)




Gender gap (Female − Male): 4.68 → 4.25 years

# IMD Rank – Lancaster District

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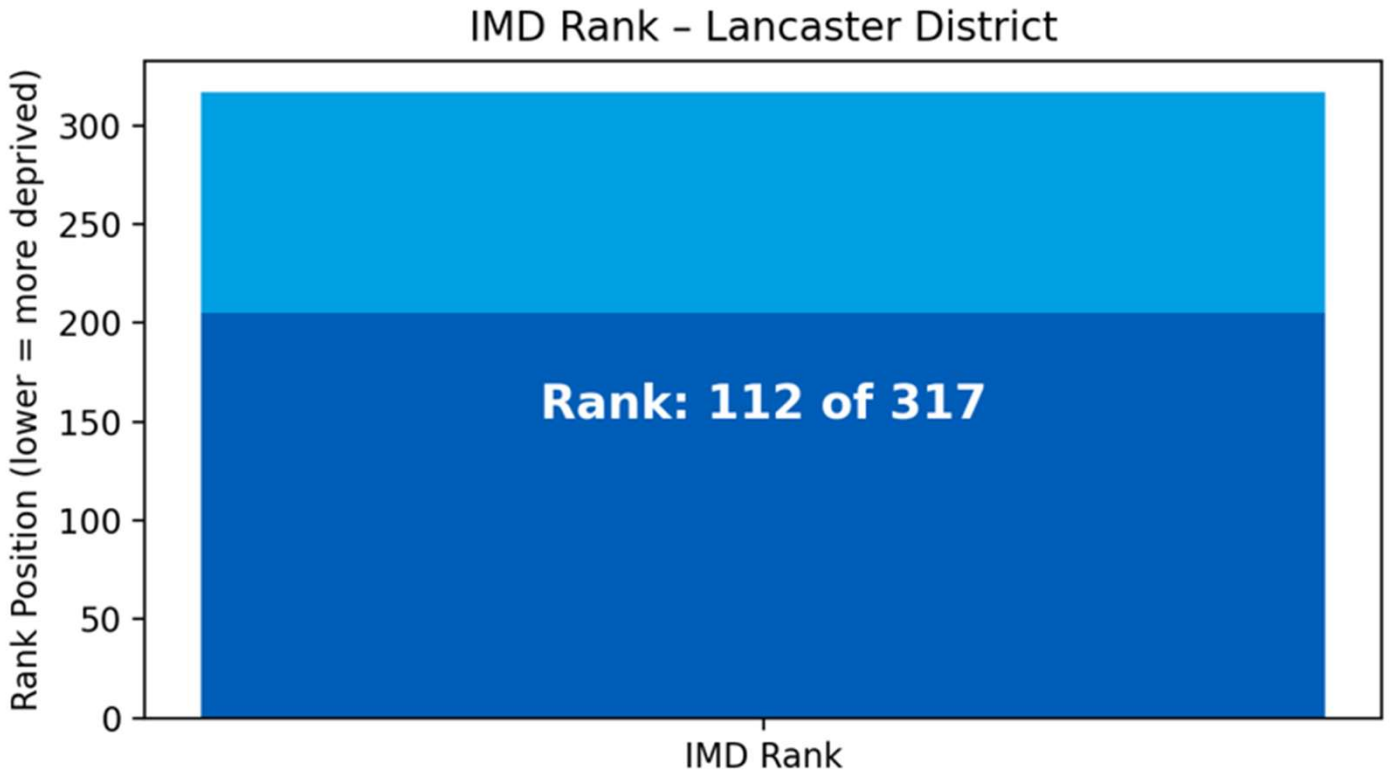

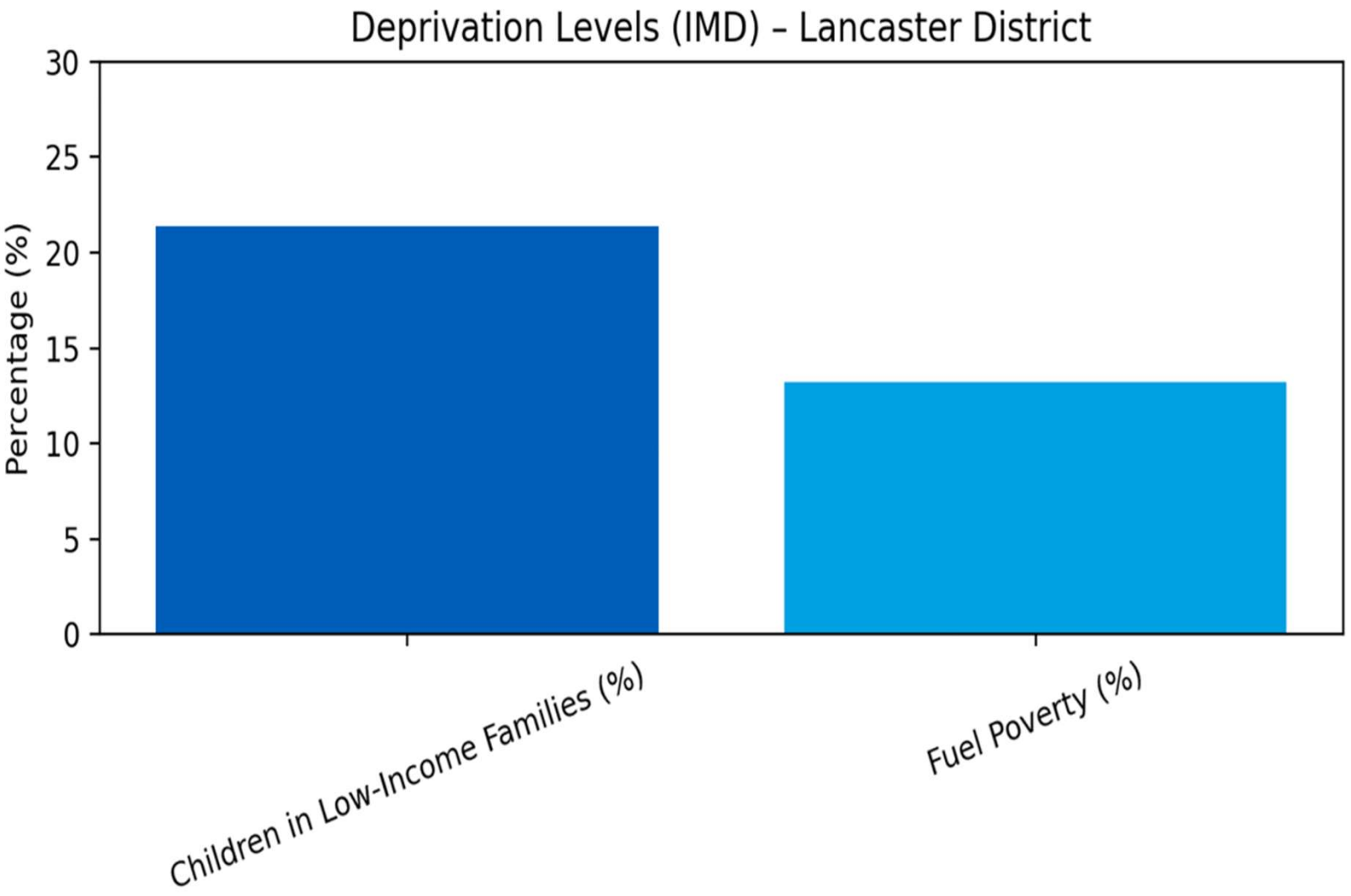


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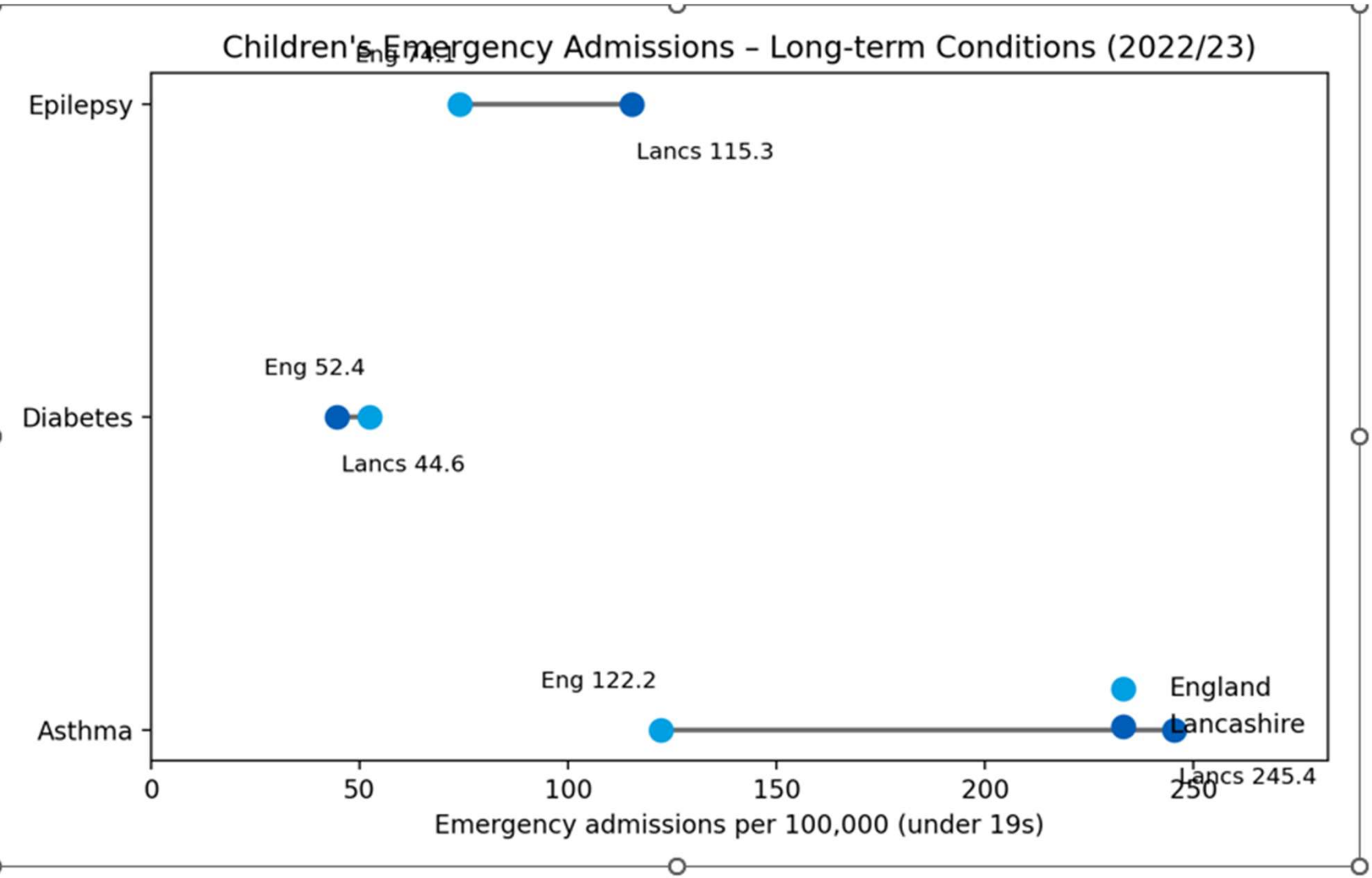
# Emergency Department Admissions for Under-5s

| WARD | ADMISSIONS PER 1,000 |
|---|---|
| **Overton** | 287.9 |
| **Skerton East** | 263.9 |
| **Skerton West** | 235.2 |
| **Torrisholme** | 224.7 |
| **Kellet** | 221.4 |
| **England Avg** | 151 |

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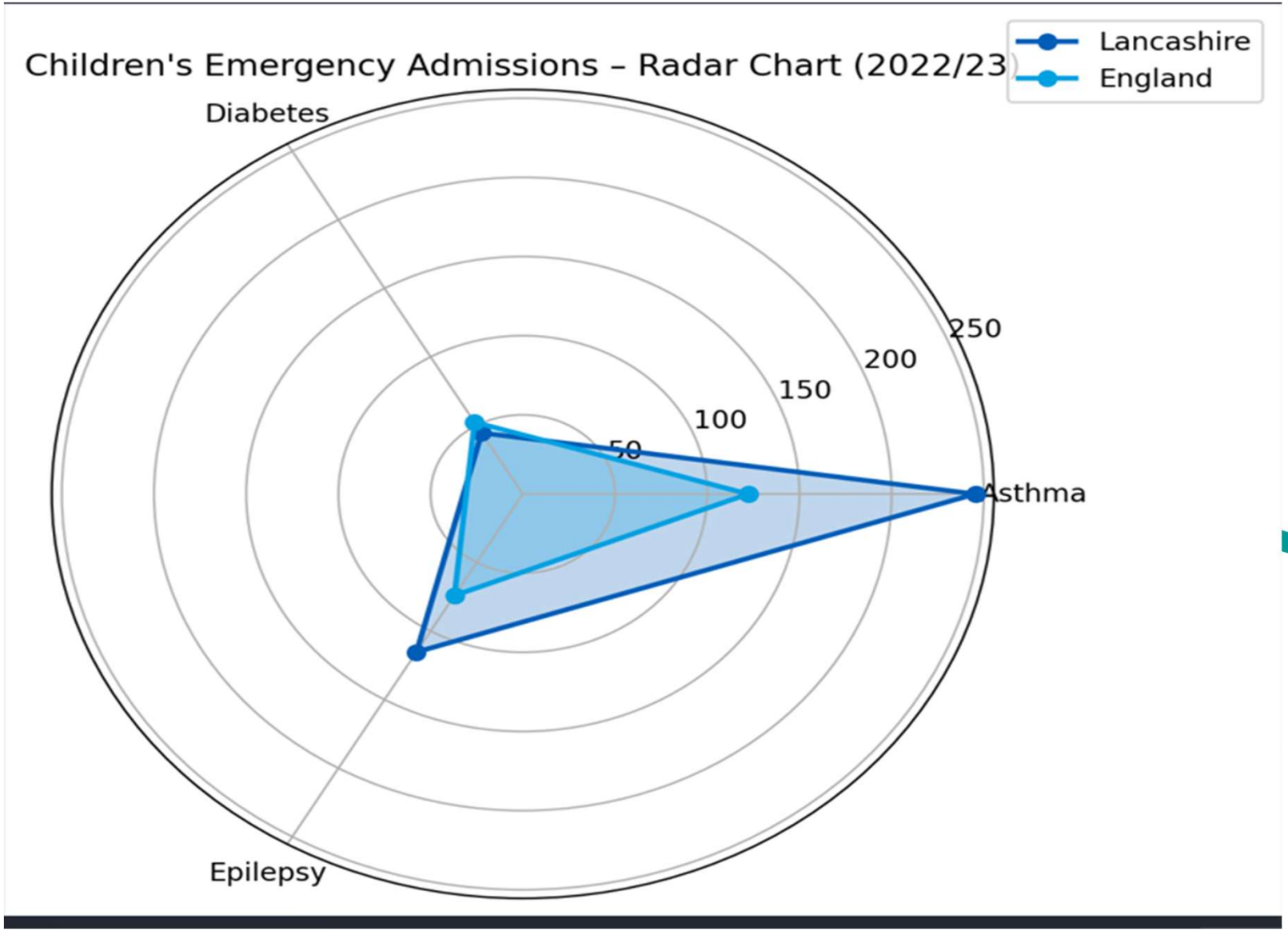


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# BCYP Emergency Admissions

- Lancashire vs England (per 100,000 under-19s, 2022/23):
- Asthma 245.4 vs 122.2 (Δ +123.2); Epilepsy 115.3 vs 74.1 (Δ +41.2); Diabetes 44.6 vs 52.4 (Δ -7.8).
- Higher asthma and epilepsy admissions suggest unmet need in community management and potentially **modifiable environmental risks** (e.g., damp/cold homes).
- **System actions: population health management to target highest-rate neighbourhoods; integrate with housing partners to address damp/mould and fuel poverty;** expand community respiratory and epilepsy nursing support.
- Why this matters: NHS Outcomes Framework (2.3.ii) treats these as potentially avoidable emergency admissions – improved primary/community care should reduce them.

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# Identifying possible triggers…

- Viruses
- Allergens such as pollens, animal dander, house dust mite, mould
- Exercise
- Chemicals
- Weather changes
- Emotional factors
- Irritants - deodorant and air freshener
- Cigarette smoke
- Pollution


# Poor home safety/conditions

- There were 7 reviews where the CDOPs recorded contributory factors in relation to poor home conditions.
- These included instances of excessive **mould** and dust, and dirty**, overcrowded** and tobacco smoke-filled houses.
- Factors related to poverty and deprivation were also present including living environment deprivation, homelessness, **property in poor repair, and cold houses.**
- Where this information was recorded, 3 of the children lived in social/council/housing association housing and for **2 of them, mould or damp was recorded as a contributory factor.**
- Indoor air quality can have a significant impact on children and young people's health. Poor housing quality is strongly associated with asthma.

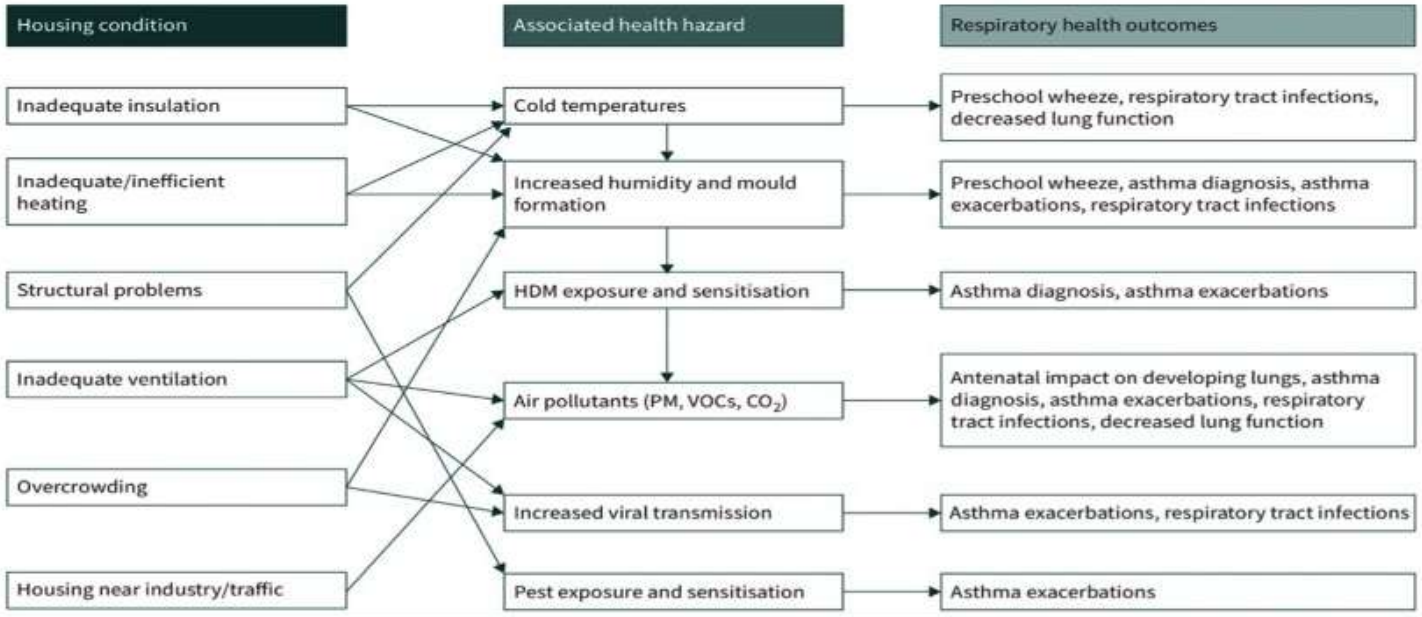
Poor indoor air quality

- Awab's Law- From **October 2025** social landlords will be required to address **damp and mould hazards that present a significant risk of harm to tenants within fixed timescales**. From the same point in time, they will also have to address **all emergency repairs**, (whether they relate to damp and mould or not), as soon as possible and within no longer than **24 hours**.

BREATHE
REVIEW
K.A. HOLDEN ET AL.

## The impact of poor housing and indoor air quality on respiratory health in children

Karl A. Holden[1,2,5], Alice R. Lee[1,2,5], Daniel B. Hawcutt[2,3] and Ian P. Sinha[2,4]




- **Damp & mould: asthma/wheeze ↑ ~50%**
- **Early-life damp → asthma by 3 yrs OR 7.1; up to ~14% of childhood asthma attributable.**

Belfast
chrisbaraniuk@gmail.com
Cite this as: *BMJ* 2023;380:p698
http://dx.doi.org/10.1136/bmj.p698
Published: 30 March 2023

PATIENT ADVOCACY

# The doctor forcing landlords to act on mouldy homes

The tragic death of 2 year old Awaab Ishak raised questions about the medical community's role in health problems related to housing. Advocating for patients and information sharing is key—and one doctor is taking that role particularly seriously, finds **Chris Baraniuk**

Chris Baraniuk *freelance journalist*

**Box 1: Letters to landlords—a possible structure**

The details that Ian Sinha, consultant respiratory paediatrician at Alder Hey Hospital, includes in letters to landlords when he sees a patient affected by mould in the home include:

- Interval symptoms when well, list of exacerbations or acute episodes, family and social history, immunisation history
- Assessment of height and weight
- List of medical investigations, including chest radiology, full blood counts, bronchoscopy results (including cytology), immune work-up, allergies, sweat test
- Description of issues at home
- Map of house in relation to main roads and industrial sources of air pollution
- Local data on air pollution in the child's area
- Summary: the child's health now, the factors that are atypical or worrying, and how housing might have a role

RCPCH



# Air Pollution Companion: Clean air clinics

Health Policy team

Save as PDF

This page and our 'Clean air, healthy childhoods' policy report are for policy makers, NHS leaders and child health professionals. Clean air clinics, which are run by multidisciplinary teams, support families experiencing health problems linked to poor housing and pollution. They show what is possible when we look beyond symptoms to the root causes of illness.

# YOUR EXPERIENCE OF THE MEDICAL PROBLEMS

**2.4 [redacted] problems are not fully explained by his medical or social background:**

- 2.4.1 Usually, babies with BPD stop needing oxygen within 6-12 months of discharge from the neonatal unit. Most do not require admission to hospital more than once or twice in the first two years of life. Those requiring oxygen for longer, or have repeated respiratory problems in infancy, tend to (i) have been born with especially poor lungs; (ii) need prolonged or high levels of ventilation in the neonatal unit; (iii) have severe BPD, or (iv) have poor weight gain.

- 2.4.2 [redacted] had none of these problems. It is unexpected that he suffered from repeated acute respiratory problems, and that he required oxygen for 19 months. We can infer that his lungs were in reasonable condition at birth (for his gestational age) because [redacted] antenatal scans were normal, and her waters were broken at the time of delivery. [redacted] did not require ventilation at high settings in the neonatal period. He did not require additional respiratory support, other than oxygen, by the time of his due date. His weight gain was generally satisfactory. Considering all these factors, his respiratory health suffered far more than would be expected in his infancy.

- 2.4.3 [redacted] demonstrates no medical reason for his troublesome symptoms that have continued to 5 years of age. He had a bronchoscopy showing his airways to be normal but inflamed. He has had immune function tests and was sufficiently unwell for his consultant to do a 'sweat test' to exclude Cystic Fibrosis. A pre-school aged child with severe asthma should have either a strong personal or family history of 'atopy' (asthma, eczema, hay fever) but this is not seen in [redacted] case.

In summary, we believe that [redacted]'s **poor respiratory health is a result of the home environment** due to:

1. [redacted] **being diagnosed with asthma, which does not fit with the typical allergic intrinsic asthma type:**
    a. With typical allergic (intrinsic) asthma, we would perhaps expect there to be evidence of a first-degree relative with asthma, raised blood eosinophils, evidence of allergic sensitisation and raised total IgE, all of which are **not the case** for [redacted].
    b. Therefore, we then think about [redacted] having Type 2-low asthma. This could be associated with
        i. poor nutrition: which is not the case as [redacted] eats a varied diet including fruit/vegetables and she is well nourished and is growing well as evidenced by her growth charts
        ii. obesity: not the case for [redacted] as she is not obese as evidenced by her growth charts
        iii. exposure to environmental tobacco smoke: not the case as you do not smoke and she is not around people in the home environment who smoke
        iv. predisposition to airways disease due to antenatal determinants of respiratory health, e.g. smoking in pregnancy: this is not the case as you did not smoke during pregnancy.
        v. **environmental insults in the air that we breathe:** this is the **only part of the history** that is present for [redacted], the problems with damp and mould in the home from when you moved into the property. Continually breathing in poor quality air (as a result of damp and mould) has likely led to chronic irritation of her airways, resulting in the **persistent and progressive respiratory symptoms** that she has. From the detailed assessment and history

# EXPLAIN THE PRESENT AND FUTURE RISK

**Clinical summary:**

[redacted] was born at an extremely preterm gestation. Her lungs are at significant risk of lifelong damage. This is because of their initial immaturity, and damage from breathing support required to keep her alive. There are two concerns about her living in a home with damp – (1) the damp itself can be damaging (especially if associated with mould); (2) the increased risk of infections leads to inflammation which alters the way the airways develop.

In this figure below, we demonstrate how lung function changes over the life course. In essence, early childhood is a window of opportunity for her lungs to catch up – the optimal time is in the first 2 years of life, and after this there is a subsequent window until she goes to high school. After that, her lungs will basically be programmed with regards how her respiratory health will be through her life. The evidence around this is now well accepted in the scientific and clinical communities.

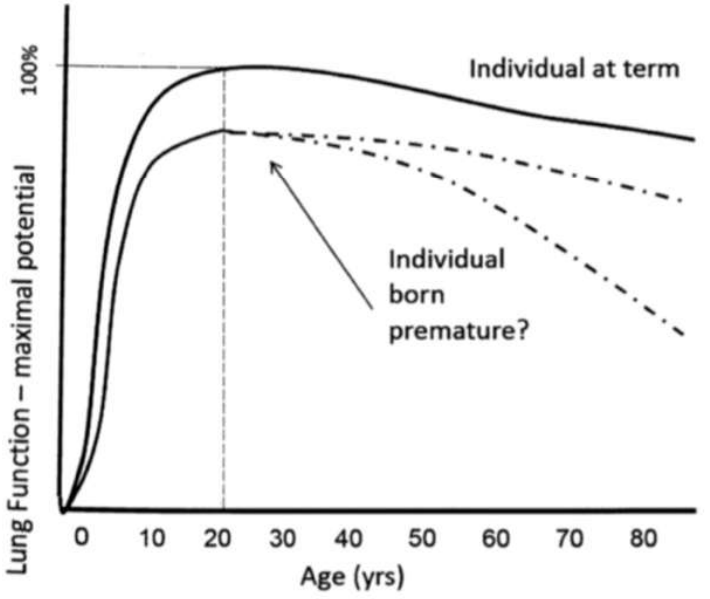



**Figure 1** The life course of lung function. Black line indicates term individuals, grey solid line indicates preterm-born individuals and grey dashed line indicates possible rates of decline in lung function in preterm-born individuals.

# CHALLENGE COMPLACENCY

**Clinical summary:**
[redacted] has uncontrolled asthma, which requires multidisciplinary input. Whilst asthma is common in children, it is much less common to require tertiary multidisciplinary input. This service is reserved for children who have particularly difficult to control asthma. This year [redacted] had a life threatening asthma attack requiring intravenous treatment. This is his fourth episode of life threatening asthma attack. The most likely causes for [redacted] asthma attacks are viruses and house dust mite.

It is notable in [redacted] medical records that as well as regular winter asthma attacks, [redacted] has out of season asthma attacks throughout spring and summer. He also experienced 6 asthma exacerbations in the first year of the COVID 19 pandemic – this is unusual, as globally and nationally the rate of asthma exacerbations reduced during this period. This suggests that [redacted] asthma is driven by more than the usual childhood triggers of cold weather and school based viral transmission.

As well as having acute asthma attacks, [redacted] has daily symptoms of cough and wheeze, which impacts his ability to attend school, participate in sport and affects his wellbeing.

# RIGHTS

I was dismayed to hear today that there has been no movement with regards rehousing your family. I am intensely worried about [redacted]'s health, and am happy for you to pass this letter on to [redacted] Housing. In short, I feel (like I said in my Clean Air Clinic in June 2021), that this housing would contribute to his ill health. I am unfortunately making the same recommendation nearly 2 years on. My opinion is that **this house is likely to reduce [redacted]'s life expectancy, by making his respiratory status worse.** He has severe, life-limiting cardiorespiratory illness; it seems completely inappropriate to me that he is forced to live in a house that one day may give him a fatal infection, and that his constant exposure to poor quality indoor air (through no fault of the family) may damage his airways and blood vessels to the extent that his heart/lung problems become unsurvivable. I therefore see this accommodation as posing a threat to his life, and an infringement of his human rights according to the UN Convention on the Rights of the Child.

**Re: ?? Hello all, just after some help !**

KS

[redacted]

To: [redacted]

Monday, 16 June 2025 at 17:41

Mum: [redacted]

Hi [redacted] Thomas,

I'd be so grateful if we might be able to sort something to help this little one - she's currently in a [redacted] flat in [redacted] bidding on [redacted] flats through property pool

She was extremely premature (born at 23 weeks gestation - right at the limits of viability)

She's at a very increased risk of mortality in infancy, and also throughout life - basically she needs to urgently grow her lungs, and she's also at risk of neuro developmental problems - part of the problem with sharing a room with her sister is getting virsuses etc

The difficulty she has is that she lives in a one bed flat with mould - they're currently bidding on properties as Band A but are getting stuck - the housing they've been offered has similar issues

I know things are stretched but she's a baby I'm hugely worried about given her lung disease and brain development concerns , is there a chance we could prioritise her within Band A somehow Thomas? If not, [redacted] , any help that your teams might be able to offer would be greatly appreciated!

Many thanks in advance

Ian

MARM[redacted]

**Ian Sinha**
Consultant respiratory paediatrician,
Alder Hey Hospital, Liverpool

**→ Childhood offers a one-off window to build healthy lives.** Poverty slams that window shut, driving health inequalities that last a lifetime. Medicine alone can't fix this. Systemic problems need systemic solutions, built-in partnership between clinicians, researchers, communities and policymakers. We tend not to think of our programmes as individual things. They're all just part of the system-wide approach that we're taking.

We set up the world's first Clean Air Clinic to advocate for individuals and families blighted by poor air quality. We've successfully supported families, including some whose houses are at risk of burning down because mould affects the electrics, and others who have been forced to sleep in cars to escape rats. But that alone isn't enough. Therefore, to act at scale we established the North West Health and Housing Joint Taskforce with councils, clinicians and housing agencies, so groups that once worked in silos now tackle the problem together.

Another example is the Liverpool Parent Champion programme, led by Dr Alice Lee* and supported by the Alder Hey Children's Charity. It empowers mothers in deprived areas by strengthening their knowledge of infant health and housing, and drawing on their tacit expertise to reach other parents. Each year they speak with thousands of new and expectant mothers, with a credibility no NHS-led campaign could match. This approach cut urgent admissions for severe chest infections in babies by 25% – a striking, almost unprecedented NHS result – and is now replicated elsewhere in the UK. The thinking behind the programme was, 'Let's empower these mothers to mother'. It's very much about giving children the best start in life.

The key Marmot sentence that we've always drilled home is that there's no point getting these kids better to only send them back to the very situation that made them sick in the first place.

* Funded by the Health Data Research UK Inflammation and Immunity Driver Programme
Project group: Ian Sinha, Alice Lee, Dan Hawcutt and Olufemi Olajidew

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- Housing Improvements: If housing improvements are prioritised, such as reducing dampness and mould, it could lead to better respiratory health for children. Community organisations can work with local authorities to identify and address substandard housing conditions. Linking these efforts with healthcare services can help monitor the health outcomes of these improvements, ensuring children live in environments that support their right to health.

RCPCH policy report

# **Clean air, healthy childhoods:** Innovative clinical responses to environmental health inequalities

RCPCH Clean Air Fund partnership

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# For local authorities and housing teams

- Enforce relevant legal duties[i] and act on the environmental determinants of health by ensuring housing conditions reach minimum standards, particularly for those exposed to air pollution (e.g. damp, mould, poor ventilation).
- Proactively inspect housing when a healthcare worker or patient flags poor conditions.
- Ensure that retrofitting schemes focused on improving insulation include clear minimum ventilation requirements and enforce these.
- Follow relevant national guidance to strengthen partnerships between housing and health sectors to ensure timely joined up responses to housing-related health.

# Summary of recommendations

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## For UK governments and administrations:

- Enact a Clean Air Act ensuring legal rights to clean air
- Meet 2005 WHO Air Quality Guidelines
- Expand Awaab's Law across the UK to cover private renters
- Fund air quality monitoring in schools and empower councils to act on breaches

## For Local Authorities and housing teams

- Improve housing conditions with faster response to mould and damp complaints.
- Forge stronger partnerships with healthcare services.

## For Boards, Trusts and Integrated Care Systems:

- Pilot 'hub and spoke' models to link specialist clinics with local services.
- Allocate time for detailed consultations and housing advocacy.

## For Royal Colleges and medical schools:

- Embed environmental health in core curricula
- Encourage research, CPD and education on environmental health across specialities
- Use RCPCH Air Pollution Companion to upskill healthcare professionals to have conversations with children and families on the impact of air pollution and the "talking to patients about air pollution" module of simulated conversations with children, young people and families.

## For clinicians:

- Incorporate environmental history into routine care
- Complete accredited CPD activity on environmental impacts on health and health inequalities
- Use evidence-based tools to advocate for healthier environments

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Poor housing – cold, damp, mouldy, infested, overcrowded, - has a direct and indirect effect on the respiratory health of children

There are significant societal, governmental and corporate areas of concern to be tackled at all levels

**Advocating for BCYP and families** is key for both the medical experts and the housing communities
( landlords included )

Communication between agencies is vital and will save lives

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**Where else to find help**

Local Councils
NRLA
E learning
GOV.UK
Housing Ombudsman
Domestic Abuse Housing Alliance ( DAHA )
The Safeguarding Alliance
Chartered Institute of Housing ( CIH )

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Let's work together

**THANKYOU**

clare.Peckham@mbht.nhs.uk


THANK YOU

# Give children the opportunity to live life to the full……..



Exercise is
GOOD !