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# Healthy Homes Barometer 2019

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United Kingdom

**VELUX®**



## Growing up in (un)healthy buildings

**It is no secret that a healthy home and a healthy childhood go hand-in-hand. Good air quality, sufficient access to daylight and adequate ventilation are important for creating a healthy indoor environment in any home, with the effects reaching far beyond childhood.**

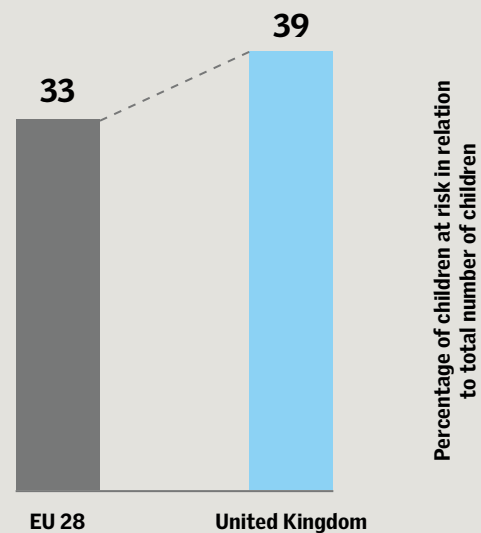
The Healthy Homes Barometer 2019 finds that homes affected by dampness, darkness, excess noise and cold temperatures can have an impact on the health of the children living in them. This year's barometer goes in depth on how our buildings are affecting the health of the youngest generations and explores the benefits, for individuals and society, of making sure our children grow up in healthy buildings.

### Victims of unhealthy homes

Today, there are over 11.5 million children under the age of 15 living in the United Kingdom. Many of them are living in homes with housing deficiencies that could potentially be harmful to their health.

On a European scale, children living with at least one of these risk factors are 1.7 times more likely to report experiencing poor health. While those living with all four of the risk factors are a striking 4.2 times more likely to report poor health.

**Living in unhealthy homes puts UK children at high risk of experiencing unwanted health issues**



Growing up in unhealthy homes is associated with higher likelihood of childhood health issues such as asthma, eczema and upper and poor respiratory health.

### Children living with housing deficiencies in the UK



#### Dampness:

Almost 2.5 million children report living with leaky roofs, damp walls or rot/mould in window frames or floors.



#### Darkness:

Almost one million report living in houses without enough daylight.



#### Cold temperatures:

Over 750,000 report living in homes that cannot stay adequately warm.



#### Excess noise:

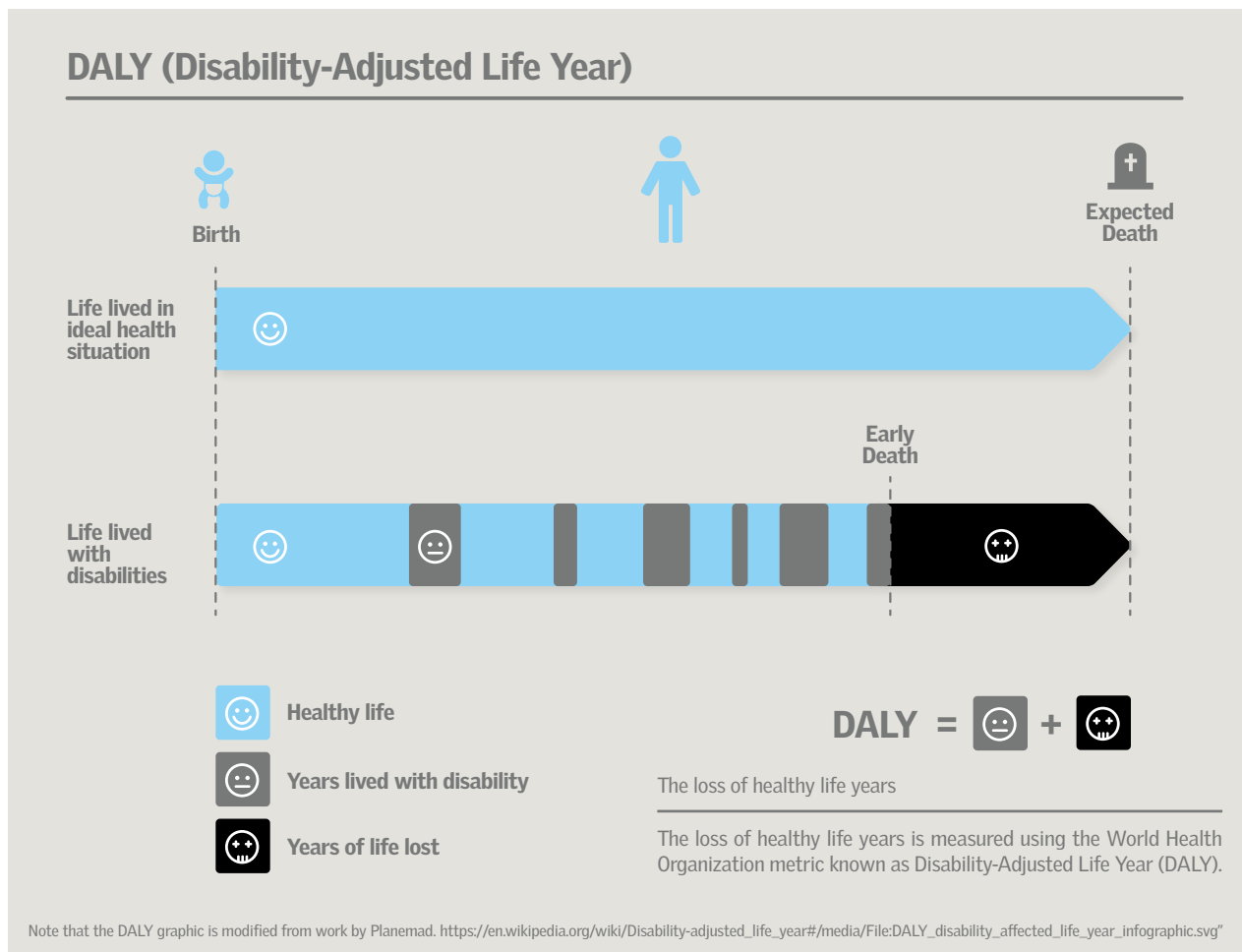
Over 2 million report excessive noise pollution from neighbours or traffic.

Note that these building deficiencies are not mutually exclusive. Dwellings with several deficiencies are therefore counted more than once.

# Loss of "healthy life years"

Living with the diseases listed previously can reduce one's quality of life and life expectancy. Using a metric known as Disability-Adjusted Life Year (DALY) we have estimated the amount of years that could have been lived free of disease if children were not exposed to indoor mould and dampness. The total number of healthy life years lost for British children living in unhealthy homes

with serious illness is today over 9.5 thousand. To put this into perspective, WHO points to second-hand smoke as one of the most harmful exposure risks in the indoor environment. In terms of loss of 'healthy' life years, exposure to dampness and mould is about a third of the impact of harmful second-hand smoke.



# Stuffy schools and empty desks

Children are not only losing years of healthy living. They are also losing out on their education. In the UK, more than nine million students spend around 190 days in school annually, and up to 70% of that time is spent inside the classroom<sup>1</sup>. However, each year, diseases related to unhealthy buildings are responsible for European children missing 1.7 million school days. In the UK, children are missing, almost half a million school days every year.

Ensuring good indoor climates in schools is key to protecting children's learning and well-being. Good air quality is linked to better performance. A review of multiple studies found that improved air quality could boost student performance by up to 15%, with a positive effect on working speed, attention level, and concentration<sup>2</sup>.

Children in the UK are missing 490,379 school days every year.

Increased air quality can boost performance by up to **15 percent**.



## Healthier homes and schools for healthier economies

Improving the indoor climate of the places where our children spend most of their time will not only be beneficial to their health and performance in school, it could also boost the economy.

Over the next 40 years, reducing exposure to mould and dampness in homes and improving ventilation rates in schools

could result in economic gains because of improved health in children and thus, increased labour productivity from both parents and children, once they become adults.

### Economic benefits by 2060 – UK



Economic impact of improving ventilation rates in schools in the UK by 2060

**£ 39.1 Billion**



Economic impact of reducing exposure to mould and dampness in homes in the UK by 2060

**£ 16.5 Billion**



Total economic benefit of improving indoor environments in schools and homes in the UK

**£ 55.6 Billion**

### Ensuring a safe learning environment

To guarantee that children – and teachers – can thrive in the classroom, it is crucial to create a healthy indoor climate that has:



Adequate daylight



Artificial lighting



Good acoustics



Comfortable indoor temperature and humidity levels



Proper ventilation

<sup>1</sup> European Commission, 2018 "The Organisation of School Time in Europe." Primary and General Secondary Education – 2018/19."

<sup>2</sup> Fraunhofer-Institut für Bauphysik IBP, 2015. "Impact of the indoor environment on learning in schools in Europe"