

Summary

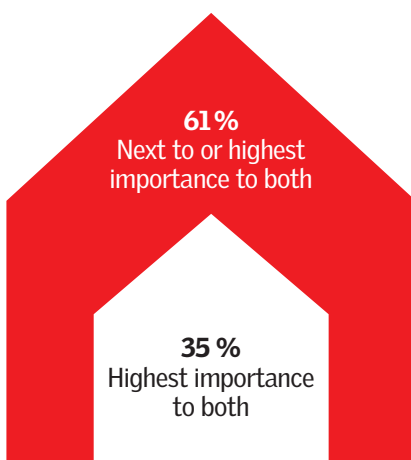
Five key findings in the Healthy Homes Barometer 2015

The Healthy Homes Barometer 2015 consists of nine indicators providing insights into the state of the indoor climate, behaviour and attitudes towards healthy homes in 12 European countries. Across these nine indicators, five key findings stand out.

Europeans desire healthy homes

People take more than 20,000 breaths a day³, and we live an estimated 90 % of our lives indoors⁴. Good daylight conditions improve health, wellbeing and performance⁵ in general, and children's learning abilities rise by up to 15 % if they are in a good indoor climate⁶. Thus, living a healthy life is closely related to living in a healthy indoor environment.

How many Europeans give the highest importance to both fresh air and daylight when asked what is important to their health?

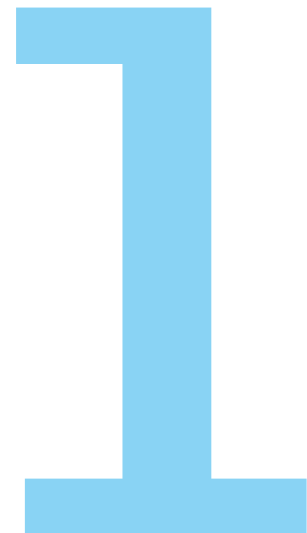


A number of scientific studies point out that a healthy and comfortable indoor environment is one which is ventilated, and that lets in daylight. Science and citizens agree. The Healthy Homes Barometer 2015 reveals one noteworthy fact, Europeans link healthy living very closely to the home arena.

Sleeping well at night is the most important health factor according to Europeans. More surprisingly, Europeans consider fresh air and daylight even more important to their health than avoiding tobacco or avoiding chemicals from consumer products in the home. Europeans even put greater emphasis on fresh air indoors than on eating plenty of fruit and vegetables.

Obviously, ventilating to let in fresh air may score high because it is a behaviour with multiple benefits: It increases comfort while making the indoor climate healthier by letting out particles from tobacco or consumer products.

However, the most likely explanation for Europeans' great emphasis on the importance of fresh air and daylight is that these two factors are closely linked to creating a comfortable home environment, which the barometer clearly indicates is important to Europeans. Furthermore, being comfortable is an absolute necessity for sleeping well at night.



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35%

of Europeans rank both indoor air quality and the amount of daylight of the highest importance if moving to a new house

Europeans need fresh air and daylight to feel at home

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While Europeans in general consider that the home arena is an important enabler to a healthy life, there is less understanding about why the home arena is so important.

The barometer shows that Europeans make no strong link between daylight and fresh air on the one hand, and health issues such as illness, fatigue, asthma and allergies on the other.

Even though science shows that lack of fresh air increases the risk of developing allergies by 42%⁷, and that lack of daylight indoors hampers chil-

dren's learning abilities, these are not the main reasons why Europeans consider fresh air and daylight in their homes important. Instead fresh air and daylight is connected to "feeling at home", feeling fit and comfortable.

This suggests that Europeans strive to achieve a healthy indoor environment because it intuitively feels right, not necessarily because they know how important it is to family health.

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29%

of European males rank both indoor air quality and the amount of daylight of the highest importance if moving to a new house



41%

of European females rank both indoor air quality and the amount of daylight of the highest importance if moving to a new house

⁷ Hägerhed-Engman, L. Bornehag, C. G., Sundell, J.: "How valid are parents' questionnaire responses regarding building characteristics. Mouldy odour and signs of moisture problems in Swedish homes?", Scandinavian Journal of Public Health, p. 35 (2007).

Having healthy homes is an underestimated and unacknowledged public health factor

Despite more than seven years of financial crisis and high unemployment rates across Europe, living in a building with unhealthy indoor air quality is as serious to Europeans as losing their jobs, and only of slightly less concern than being unable to pay the mortgage/rent.

Having a high quality indoor climate is simply of great concern to Europeans.

It should be. Recent studies show that 80 million Europeans live in homes that are damp⁸. Damp homes have an unhealthy indoor climate which almost doubles the risk of developing asthma⁹. According to the Global Initiative for Asthma, 30.7 million Europeans had asthma in 2004¹⁰.

However, despite the general concern, 65 % of all Europeans dry clothes indoors at least once a week, and only 28 % air out more than once a day during winter, which is needed to obtain optimal indoor air quality. Nevertheless, 78 % of all Europeans express above average satisfaction with the air quality in their current home.

Thus, there is a clear paradox between perception and reality, and there is a knowledge gap that has

to be bridged. The European self-assessment is far too optimistic.

Even more noteworthy is that Europeans living in households with one or more persons suffering from asthma or allergies are only marginally more concerned about living in a building with unhealthy indoor air quality. In homes without asthma or allergies, 22 % are very concerned about their indoor climate, while 37 % of Europeans living in households with four or more persons suffering from these diseases are very concerned. What is more, surprisingly, living in a household with asthma and allergies does not make people air out more frequently than others during winter.

Europeans are satisfied with their indoor climate beyond reason, and this satisfaction leads to inaction. One explanation may be that there is a lack of knowledge about how much fresh air and daylight it is fair to expect and possible to have in everyday life at home.

Since a number of scientific studies show that lack of ventilation and daylight may ultimately lead to illness and fatigue¹¹, it is fair to say that there is an untapped health potential in more societal debate about the importance of healthy homes and how to live a healthy life indoors.

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There is little coherence between concern and action

While Europeans are very concerned about the indoor climate in their homes, this concern only has a very limited effect on behaviour.

All Europeans ventilate their homes. But homes are ventilated much more during summer, when ventilation prevents overheating, than during winter, when wellbeing becomes a trade-off between fresh air, temperature and energy costs. The drop in airing out during the wintertime is substantial, even in homes where the occupants are very concerned with a healthy indoor climate.

These facts imply two things.

First, the right behaviour might not be directed by a deep understanding of the actual benefits of a healthy home. The primary motivation for airing out may be the immediate feeling of wellbeing, not a concern about health. This may also explain the widespread practice of drying clothes indoors, as this can take place in a remote part of the house

or behind closed doors, where the negative impact on wellbeing is incorrectly believed to be eliminated. The overall risk for developing asthma is approximately twice as high for people living in homes with mould or damp, even if this is in a clothes-drying area in the basement and far from the living room¹¹.

Second, as long as the cognitive link between poor indoor environment and illness, fatigue, asthma and allergies etc. is weak, Europeans will only act when costs are low. As soon as it becomes difficult or costly to obtain a good indoor environment, e.g. during winter, behaviour changes.

Better indoor environment in European homes depends on increased knowledge and awareness about the importance of occupants' behaviour and solutions from the building industry and architects to make it easy to ventilate and get daylight.

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Europeans are willing to act – if it pays off

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Europeans take responsibility for making their homes healthy. They look for daylight and fresh air when relocating and they are even willing to invest in making their homes healthy. Owners of buildings expected to take primary responsibility for ensuring that their buildings are healthy.

The personal responsibility of homeowners is limited to areas where taking action results in immediate personal benefits such as reduced energy costs and improved home comfort.

Energy used in buildings accounts for 40 % of the total energy consumption by society¹². In general Europeans are not too impressed with the energy costs of their current home, and they are willing to invest in improving energy efficiency and the indoor climate, i.e. fresh air and daylight.

The home owners' responsibility is a strong driver in the transition towards healthy homes. But there are limits.

One is legislation. While the EU Energy Performance of Buildings Directive (EPBD, 2010/31/EU) clearly states that minimum energy performance requirements "shall take account of general in-

door climate conditions, in order to avoid possible negative effects such as inadequate ventilation"¹³, there is no clear requirement describing how this can be achieved¹⁴. There is a clear legislative gap in guidance for home owners and property developers towards more healthy homes.

Another limit is clearly documented by the Healthy Homes Barometer 2015: Despite the fact that building materials have a huge environmental footprint, and that better construction and use of buildings in the EU would influence more than 50 % of all extracted materials and could help us save up to 30 % of current water consumption¹⁵, environmental concerns are not top of mind when Europeans renovate or move to a new house.

Homeowners have little, if any, incentive to demand environmentally friendly buildings, since the environmental impact from building materials is decided when building materials are at the cradle or at their end of life – two phases in building materials' life cycle that most home owners do not feel responsible for.

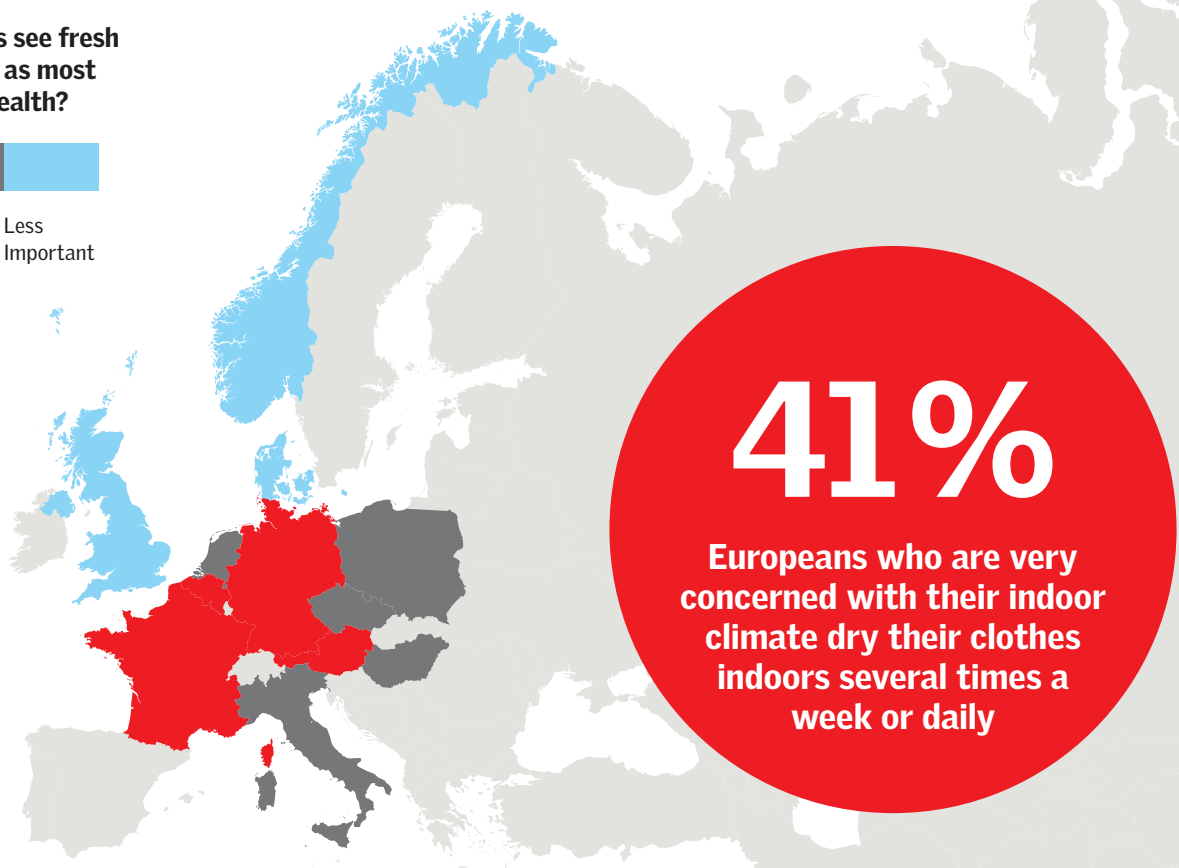
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Which countries see fresh air and daylight as most important for health?



Very Important

Less Important



41%

Europeans who are very concerned with their indoor climate dry their clothes indoors several times a week or daily

A healthy life starts at home

Europeans have been asked how important nine factors are to their health. When ranking according to importance the order is:

- #1 Sleeping well at night
- #2 Ventilating my home
- #3 Eating fruit and vegetables
- #4 Daylight in my home
- #5 Spending time outdoors
- #6 Avoiding tobacco
- #7 Regular exercise
- #8 Avoiding chemicals
- #9 Dietary supplements



The Home Arena

Three out of four factors clearly related to home life are top-rated according to Europeans.

- #1 Sleeping well at night
- #2 Ventilating my home
- #4 Daylight in my home
- #8 Avoiding chemicals



Our intake

Europeans put how our bodies are fueled in second place.

- #3 Eating fruit and vegetables
- #6 Avoiding tobacco
- #9 Dietary supplements



Being active

Europeans find it important – but not crucial – to their health to be active.

- #5 Spending time outdoors
- #7 Regular exercise

