



Children living in homes with problems of damp

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Data on the exposure of the population to damp in the home

This summary is based on self-reported data collected by EUROSTAT on the proportion of households with problems of damp (1).

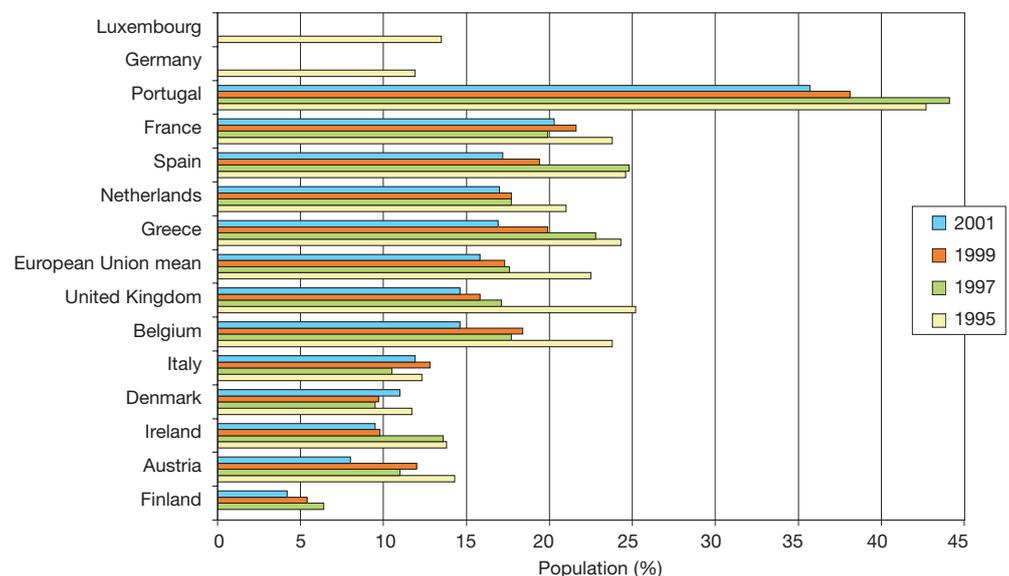
KEY MESSAGE

😊 In recent years, a survey of the total population of Europe has shown a decreasing trend in self-reported exposure to damp, with one sixth exposed in 2001. Exposure varies greatly among countries, ranging between 10% and 30%. Differences may be due to a combination of factors including climate characteristics, socioeconomic status, housing characteristics, culture and lifestyle and the existence and effectiveness of related policies (e.g. on ventilation or thermal insulation). Children are particularly susceptible to the health effects of damp, which include respiratory disorders such as irritation of the respiratory tract, allergies and exacerbation of asthma.

RATIONALE

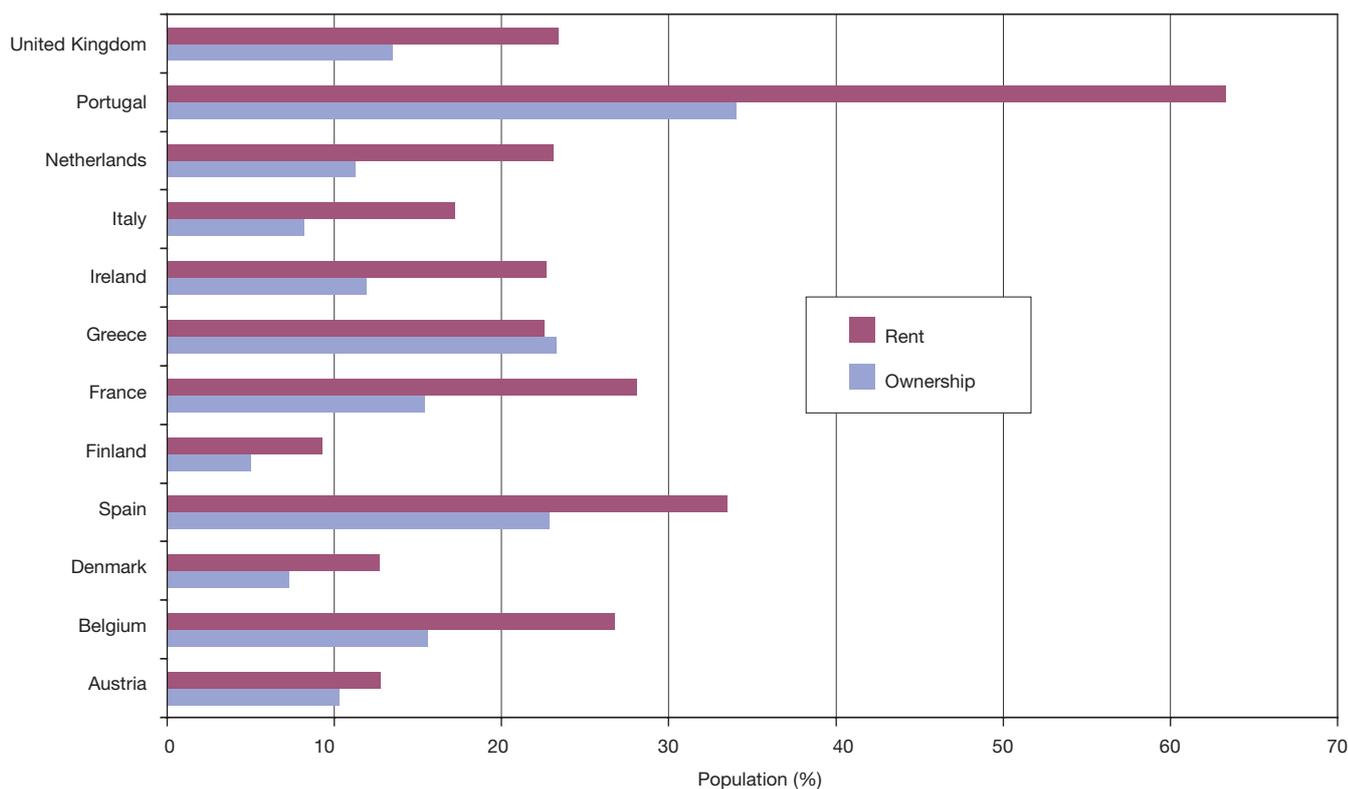
This indicator provides an estimate of the proportion of households exposed to damp. The data are not child-specific, and as they are based on people's reports of such problems, they serve only as an indication of the scale of the problem. International comparisons are difficult and the main message can be derived from trends in national data rather than variations between countries. Exposure to damp in the home is an important risk factor for a number of illnesses, particularly respiratory illnesses.

Fig. 1. Proportion of the total population living in homes with self-reported problems of damp, 1995–2001



Note. European Union (EU) mean is based on the available data in EUROSTAT database.
Source: EUROSTAT European Community Household Panel (ECHP) (1).

Fig. 2. Self-reported problems of damp in the home by housing tenure, 1997



Source: EUROSTAT ECHP (1).

PRESENTATION OF DATA

Figure 1 shows the proportion of the population in selected European countries living in housing with self-reported problems of damp between 1995 and 2001. Overall, the proportion decreased over this period but in some countries the exposure situation has not improved.

Figure 2 shows the impact of tenure on the perception of damp, based on data from selected European countries for 1997. More people living in rented accommodation reported problems of damp than home owners. This difference has been found in many surveys of damp and may (to an extent not yet quantified) relate to the responsibility for interventions rather than the real exposure.

HEALTH – ENVIRONMENT CONTEXT

Damp and thermal/humidity conditions are of particular concern in European countries with temperate and damp climates. The number of people, activities such as cooking, laundering and bathing, the use of certain fuels for heating and cooking, the indoor temperature and especially the degree of ventilation all affect

the amount of water vapour in indoor air. Water leakage due to structural damage may contribute to damp as well.

Damp inside the home induces the growth of moulds, dust mites and various microbial agents and, at the correct temperature, may initiate chemical reactions leading to the release of chemicals from building materials and furnishings. Mould and damp are important risk factors for a variety of illnesses, particularly those of the respiratory and immune systems. Generally, there are four kinds of health problems: allergic illness, irritation of the respiratory tract, infection and toxicological effects. For people that are sensitive to moulds, symptoms such as nasal irritation or congestion, dry or productive cough, wheezing, skin rashes or burning, watery or red-dened eyes may occur. Sufferers of severe allergies to moulds may have more serious reactions, such as hay-fever-like symptoms or shortness of breath. Moulds can also trigger asthma attacks in persons with asthma. Individuals with chronic illnesses or those with immune deficiencies are more likely to develop infections from certain moulds.

WHO has concluded that the strongest evidence exists for the association of damp with cough, wheeze and asthma (2). Children, who tend to spend more time than adults in their homes and whose immune systems are still developing, are at increased risk of developing respiratory disorders when living in damp,

mouldy housing. The prevalence of asthma, cough and wheezing among children living in homes with problems of damp or mould is 1.4–2.2 times higher than among children living in drier housing conditions (2). According to the currently available evidence, 13% of childhood asthma in the developed countries could be attributable to dampness (3).

Other illnesses associated with exposure to indoor damp include bronchial obstruction, bronchitis, persistent allergic rhinitis and eczema (4–7).

It has been suggested that damp is associated with mental health problems and other types of illness. Depression and the presence of general symptoms such as fatigue, headache, dizziness and difficulty concentrating have been linked to damp, mouldy living conditions (8).

This exposure indicator is closely connected with other housing quality indicators and their effects. Damp is often associated with poor housing and social conditions, poor indoor air quality and inadequate housing hygiene, which includes factors such as overcrowding, low air exchange rate, low indoor temperature and poor insulation. All these factors influence health status.

Reduction of mould and damp in housing can be achieved by a policy framework describing the components and implementation of

national plans. Financial incentives and supporting instruments are necessary for the implementation of effective interventions such as the rehabilitation of housing stock.

POLICY RELEVANCE AND CONTEXT

In 2004, the Fourth Ministerial Conference on Environment and Health adopted the Children's Health and Environment Action Plan for Europe (CEHAPE), which includes four regional priority goals to reduce the burden of environment-related diseases in children. One of the goals (RPG III) aims at preventing and reducing respiratory diseases due to outdoor and indoor air pollution, thus contributing to a reduction in the frequency of asthmatic attacks and ensuring that children can live in an environment with clean air (9).

Several initiatives, action programmes and declarations within the framework of the United Nations Human Settlements Programme (UN-HABITAT) coordinate international bodies in their efforts to reach the United Nations' Millennium Declaration. This is achieved by promoting human development as the key to sustaining social and economic progress in all countries.

In January 2006, the EU Stability Pact for South Eastern Europe implemented a cooperation agreement with UN-HABITAT to improve social housing and urban development across the Region (10). This agreement will contribute to economic growth and help countries in the Region achieve essential reforms.

In European countries the problems with damp housing have been addressed partly by technical building codes (usually only applicable to new buildings) and partly by hygiene requirements aiming to ensure that conditions are not hazardous to life, although these frequently fail to include a requirement for protection against excessive humidity.

In addition, many European countries have public health services that carry out health inspections of dwellings according to specific guidelines. In general, existing policies aim to ensure habitable and healthy housing conditions but do not include specific health promotion objectives. Portugal, with the highest rate of damp housing according to EUROSTAT, has a project on housing and health action plans as a national follow-up to the Fourth Ministerial Conference on Environment and Health (11). This project will enable all the

municipalities to develop their own plans, based on a national action plan document. Finland, one of the countries with the lowest exposure to damp housing, addresses dampness in its Land Use and Building Act (132/1999), section 13: Building Codes D2 Indoor Climate and Ventilation of Buildings (2003) (12). The United Kingdom has recently developed a Housing Health and Safety Rating System in which residential buildings are evaluated on the basis of their risk to health, with damp and mould being one of the major issues addressed (13).

The differences between countries may, to some extent, be due to the existence and implementation of policies for preventing damp in homes. The responsibility for avoiding or reducing damp is largely left to the individual or household. With free housing markets, households that are vulnerable due to socioeconomic status are likely to be at risk, as they will be restricted to low-quality housing and be likely to suffer from greater problems.

ASSESSMENT

Overall, the indicator shows a trend in decreasing exposure to damp in most of the countries with data. Despite this, an average of 16% of the population was still exposed in 2001, with the proportion varying greatly between countries. It is likely that domestic exposure to damp is an underestimated problem as few data are available. However, damp, especially mould, can have considerable effects on health and contribute to the development of chronic health problems.

Children are more susceptible than adults to exposure to indoor air pollution, including moulds and bacteria which are increased by excessive damp (14,15). Good evidence to support this is available from a number of studies in Finland, Germany, Italy and Sweden which have focused on asthma and allergic symptoms among small children and their parents (16–18).

The lack of binding policies on housing standards, combined with the large number of organizations and authorities responsible for housing policy, make the rehabilitation of housing stock a challenge. In this context, international forums should support the development and implementation of national intersectoral policies on specific action aimed at improving the housing stock. In non-EU countries there is a need for standardized procedures to collect these data.

DATA UNDERLYING THE INDICATOR

Data source

EUROSTAT ECHP database, specifically the variable on housing problems (1).

Description of data

Data on exposure to damp in the home were routinely collected through EUROSTAT by the ECHP until 2001 (EU countries participated voluntarily). Since 2006, new data are available based on the new framework regulation EU Statistics on Income and Living Conditions (EU-SILC), which is mandatory for all EU countries and provides data in a similar format (percentage of population living in damp housing).

Questions used:

ECHP:

Do you have any of the following problems with your accommodation?

Leaky roof (Yes/No)

Damp walls, floors, foundation, etc. (Yes/No)

Rot in window frames or floors (Yes/No).

EU-SILC:

Leaking roof, damp walls/floors/foundation, or rot in window frames or floor (Yes/No).

Method of calculating the indicator

Original data provided by EUROSTAT.

Geographical coverage

For ECHP data: 14 of the 15 countries belonging to the EU before May 2004 (2 only for 1995/1996).

For SILC data: all EU countries.

Period of coverage

For ECHP data: 1994–2001.

For SILC data: 2006 and continuing.

Frequency of update

Annual, although access to the data may be delayed.

Data quality

Weaknesses: both the ECHP and EU-SILC data rely on subjective assessments made by residents and are not, therefore, scientifically accurate. No direct link to health effects can be made and only EU countries are included. Finally, international comparisons may suffer from many influencing factors and therefore be limited.

Strengths: the data are collected according to consistent methodology, will be available for all EU countries on an annual basis and will provide a good indication of national trends.

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Further information

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