

# Healthy housing

## Raising standards, reducing inequalities

Improved housing conditions save lives, reduce disease, increase quality of life, reduce poverty, mitigate climate change and contribute to achievement of the Sustainable Development Goals for Health (SDG3) and Sustainable Cities (SDG11).

The world's urban population will double by 2050 and will require housing solutions. Since over 90% of urban growth is in developing cities, informal settlement and slum dwellers are likely to grow dramatically.<sup>1</sup> In both developed and developing countries improving housing conditions and reducing health risks in the home is thus critically important.

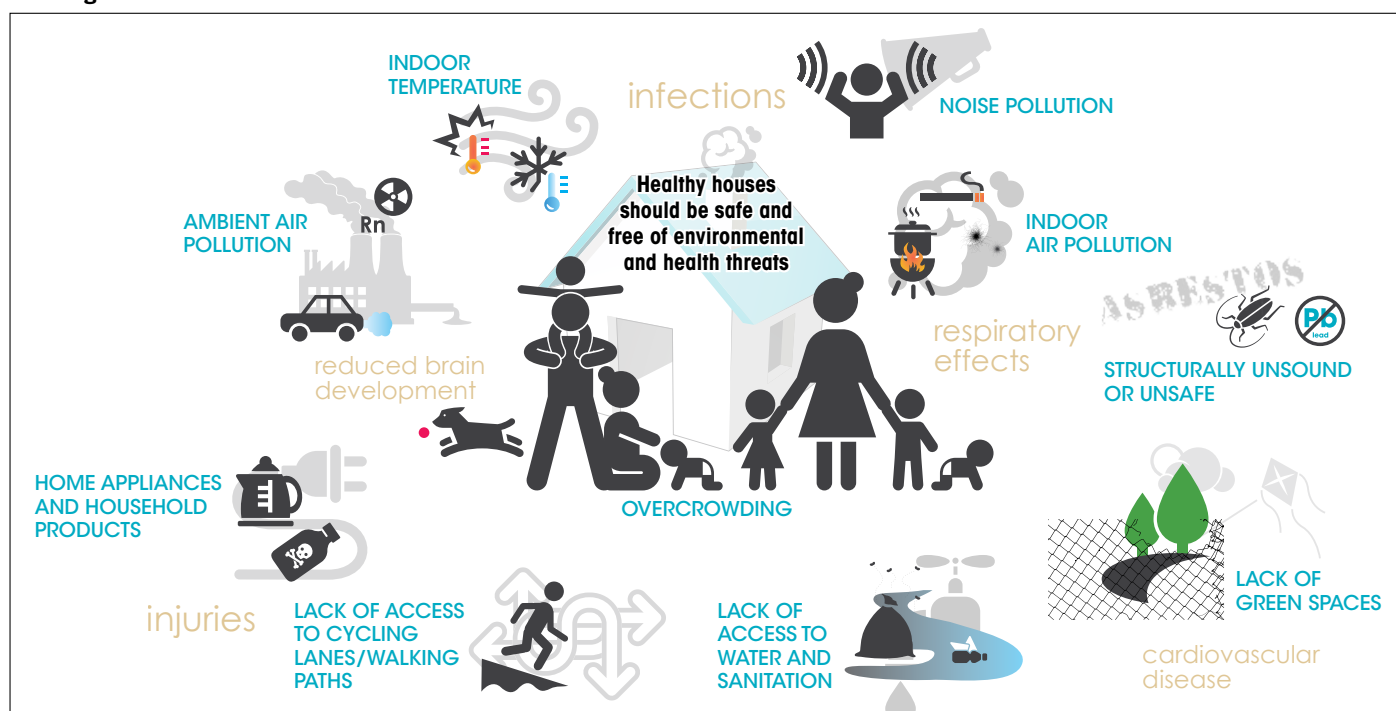
### Major impacts on health, development and climate

Poor housing conditions create multiple health risks responsible for considerable disease and deaths worldwide. Inadequate housing also tends to be energy inefficient, in terms of cooking, heating and power systems, as well as poorly protected from weather conditions, creating an array of immediate health risks as well as increasing climate emissions. Key issues include:

- Water, sanitation, and hygiene were responsible for 829 000 deaths from diarrhoeal disease worldwide in 2016. This constitutes 1.9% of the global burden of disease measured as Disability-Adjusted Life Years (DALYs).<sup>2</sup>
- Exposure to lead is estimated to have caused worldwide 853 000 deaths in 2013.<sup>3</sup>

- Eight hundred and twenty eight (828) million people live in slums, where crowding and lack of safe, healthy and durable housing is most pronounced, and the number keeps rising.<sup>4</sup>
- In 2016, 3.8 million deaths globally were attributable to household air pollution from the use of solid fuels for heating and cooking, almost all in low- and middle-income countries.<sup>5</sup>
- About 15% of new childhood asthma in Europe can be attributed to indoor dampness. This represents over 69 000 potentially avoidable DALYs and 103 potentially avoidable deaths per year.<sup>6</sup>
- Almost 110 000 people die every year in Europe as a result of an injury at home or during leisure activities, and an estimated 32 million require hospital admission.<sup>7</sup>
- In Europe, household crowding is associated with more than 3500 deaths from tuberculosis per year.<sup>6</sup>
- Residential buildings are responsible for nearly 18% of direct carbon dioxide emissions, with 11% due to household grid consumption for electricity and district heating, and the remainder from household-level cooking and heating.<sup>8</sup>

### Housing and health risks



## New opportunities – the time is right

The recent United Nations Conference on Housing and Sustainable Urban Development, Habitat III set forward a collective vision of sustainable, liveable and economically vibrant cities. To realize this vision, urban decision-makers must apply a “health lens” to urban policies and programmes, and measure their effects, in particular housing policies that generate a range of benefits, as follows:

- **Climate resilience:** health can be a driver of cost-effective housing climate change mitigation strategies. Particularly in low-income settings, improved housing can increase climate resilience to extreme heat, flooding and storms.
- **Technology:** better thermal insulation, with adequate management of energy sources and ventilation, and more energy-efficient heating and more energy-efficient biomass and biogas cookstoves in developing countries can significantly reduce health-damaging indoor air pollution exposures and improve thermal comfort, reducing asthma and respiratory illnesses as well as home injuries (e.g. from burns).
- **Economic development:** stronger building codes and housing finance measures can support investment in healthier and more energy-efficient housing while avoiding excessive fuel costs or “energy poverty.”
- **Housing and health workforce:** there is a need to increase the involvement of the health sector in the development and implementation of policies and programmes dealing with housing and health inequalities.

## WHO’s response: providing evidence-based guidance

Ensuring everyone lives in healthy and safe dwellings has implications for national, regional and local governments who play a major role by setting overall standards and legal context for housing construction and renovation. Therefore WHO provides evidence-based recommendations on healthy housing conditions and interventions and provides leadership in enabling that health considerations inform housing regulations.

### 1. WHO Housing and health guidelines: setting health standards

In late 2018, WHO published evidence-based housing and health guidelines, addressing key housing issues such as: indoor temperature, crowding, accessibility of dwellings and home injuries. The new housing guidelines also incorporate existing WHO guidance on issues such as indoor air quality, water and sanitation.

### 2. Support to countries in implementation of guidelines

WHO will work with country partners to develop tools and strategies for translating normative housing standards into national action. A package to be prepared comprises: housing and health plans; collection of case studies on healthy housing interventions; and model housing legislations and regulations with a high-equity co-benefit at urban level.

### 3. Support to countries in policy/interventions evaluation for addressing slum upgrading

WHO collaborates with a large number of partners ranging from UN organizations (UN HABITAT, UNEP, etc.), to experts in public health, epidemiology, urban health and health inequalities and representatives of civil society organizations

working on slum upgrading and informal economy (e.g. SDI Slum Dwellers International). This work will lead to identifying and measuring the health benefits of key upgrading interventions and examples of good practice; enhancing monitoring practices of health-related indicators in slums; exploring national and local implementation projects; and creating more opportunities for intersectoral dialogue at local and national levels.

## 4. Global leadership and advocacy

WHO is advocating for prioritized action on the health impacts of housing policies with key other UN agencies, e.g. UN HABITAT, UNECE.

In the context of the Habitat III Conference on Housing and Sustainable Urban Development, WHO produced a key background document **Health as the Pulse of the New Urban Agenda**; held a technical meeting on slum upgrading and health; and launched the **BreatheLife Cities campaign** ([www.breathelife2030.org](http://www.breathelife2030.org)) aiming at mobilizing cities and individuals to protect our health and planet from the effects of air pollution.

### WHO – working at country level to:

- Assist with assessment of key housing risks for health at national level.
- Support ministries of health and housing and urban planning as well as civil society to establish effective collaboration.
- Apply validated tools for assessing expected impacts of intervention options on health, poverty, environment and economic development.
- Support capacity building on housing.
- Communicate country success stories and advocate for housing and health in global fora.

### For more information:

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[www.who.int/sustainable-development/housing/en/](http://www.who.int/sustainable-development/housing/en/)  
[www.who.int/social\\_determinants/Guidance\\_on\\_pro\\_equity\\_linkages/en/](http://www.who.int/social_determinants/Guidance_on_pro_equity_linkages/en/)  
[www.who.int/sustainable-development/publications/housing-health-guidelines/en/](http://www.who.int/sustainable-development/publications/housing-health-guidelines/en/)

### Endnotes:

- 1 UNHABITAT (2015). Issue Paper on Informal Settlements ([http://unhabitat.org/wp-content/uploads/2015/04/Habitat-III-Issue-Paper-22\\_Informal-Settlements-2.0.pdf](http://unhabitat.org/wp-content/uploads/2015/04/Habitat-III-Issue-Paper-22_Informal-Settlements-2.0.pdf)).
- 2 WHO. Preventing diarrhoea through better water, sanitation and hygiene: exposures and impacts in low- and middle-income countries. Geneva: World Health Organization; 2014.
- 3 (IHME) IfHMaE. GBD Compare. University of Washington; 2015.
- 4 UNHABITAT (2016). World Cities Report.
- 5 Household air pollution and health [website]. Geneva: World Health Organization; 2018 (<http://www.who.int/en/news-room/fact-sheets/detail/household-air-pollution-and-health>).
- 6 Braubach M, Jacobs DE, Ormandy D. Environmental burden of disease associated with inadequate housing. World Health Organization. 2011.
- 7 Angermann A, Bauer R, Nossek G, Zimmermann N. Injuries in the European Union: a statistics summary, 2003–2005. Vienna: Kuratorium für Verkehrssicherheit (Austrian Road Safety Board); 2007.
- 8 CO<sub>2</sub> emissions from fuel combustion: highlights. Paris, Organisation for Economic Co-operation and Development & International Energy Agency, 2010:130.