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When medicine meets architecture: why urban planning is key to promoting health and wellbeing

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As the world economy grows and cities continue to expand, it becomes increasingly important to address health issues in the context of the urban environment. Not surprisingly, the World Health Organisation has highlighted health as a precondition of sustainable urban development and the first priority for planners.

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The characteristics of the urban context can be linked to risk factors such as sedentarity and Non-Communicable Diseases (NCDs), which pose major threats to people's health. It is therefore essential to develop urban planning strategies that exert a positive impact on people's wellbeing

and contribute to the promotion of a healthy lifestyle. The latest scientific literature and recent research conducted at the Design & Health Lab, Department ABC of Politecnico di Milano, show that three factors, in particular, significantly improve the urban environment and, in turn, people's health: green spaces, digitalisation and inclusive design.

Unlocking the therapeutic power of green spaces

Greenery and nature must be integrated into the urban landscape, so as to achieve a balance between the natural and the built environment. Green spaces are critical for many reasons. They promote biodiversity, improve outdoor air quality and urban microclimatic comfort, minimise the impact of environmental pollutants and favour physical activities, which help combat a sedentary lifestyle and enhance mental wellbeing.

Recent studies have also found that access to greenery is key to relieving stress and anxiety as well as reducing the use of specific medicines. It is therefore crucial that greenspaces are embedded within the city, through the implementation of parks, public and private gardens, green lines, green parking lots, green roofs and green walls. The importance of greenery in the urban environment should be considered not only in terms of quantity, but also of quality, that is, taking into account the activities that such spaces enable people to carry out.

Smarter technologies lead to healthier communities

Technological advancements, including cutting-edge digital tools, are paramount to improving the urban environment, especially in relation to health. Accelerating the adoption of digitalisation in the urban context can help build smart and healthier communities. The Internet of Things (IoT) is a powerful digital asset that unlocks large-scale and systematic data collection, which can be leveraged to analyse and improve population health within a city.

Meteorological columns containing sensors can collect information related to the presence of atmospheric agents acting as outdoor air pollutants, sound pressure, temperature, humidity and wind speed. The data gathered can then be leveraged to shape local policies leading to a significant improvement in the quality and the health of the urban environment. Thanks to IoT technologies, it is also possible to collect aggregate data on people movement and traffic, to ensure privacy for all while providing policymakers and planners with in-depth insights on the urban areas that need interventions to improve the quality of life for citizens. When properly used, digital systems can play a pivotal role in maximising urban efficiency and enhancing population health.

An inclusive future for all

As populations around the world are aging, inclusivity is set to become a priority. This means urban planners should design cities capable to accommodate the needs of the elderly and of groups of people with medical conditions, be they permanent, temporary or situational. A range of strategies can be employed. The implementation of accessible public transport and barrier-free architecture, for instance, helps citizens with physical limitations move around the city and live happier lives. Investing in pedestrian crossings, bicycle and wheelchair friendly streets, public seating, shading devices, street lighting, public fountains and public washrooms also contributes to the promotion of a more active lifestyle for all, and helps, in particular, those with some

form of impairment.

To address these issues effectively, policymakers and planners should capitalise on assessment tools that evaluate the level of Universal Design - the design of a space accessible to the greatest extent to all people, regardless of age and physical capabilities - analysing physical, sensory-cognitive and social quality through a set of well-defined criteria with measurable indicators. Shaping an inclusive environment is key to keeping citizens healthy.

The three pillars of urban planning

In the absence of careful planning, the urban environment may generate health risks in terms of air, water and soil pollution and widen social inequalities. The creation of greener spaces, a smart use of digital technologies and inclusive design are the pillars upon which innovative and sustainable strategies should be crafted. Indeed, these three elements are central to the development of a healthy urban environment, which, in turn, is conducive to healthier communities.

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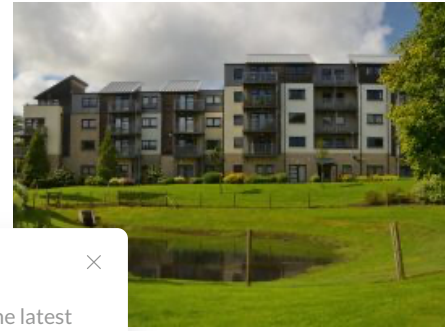
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