

Housing problems in a changing society: regulation and training needs in Italy

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Abstract

The paper focuses on the social, economic and environmental trends of recent years in Italy, highlighting the issue of housing emergency, both in quantitative and qualitative terms. What emerges are several shortages in housing especially in the suburbs of large cities, emphasizing the relevance of this issue in terms of health consequences and its priority for the definition of local policies. The authors underline that the availability of accessible and healthy housing is a human right, and a multisectoral responsibility, achievable only if a contribution is made by all relevant sectors including housing, environmental, social welfare, urban planning, building management and public health. The authors conclude by stressing the strategic role of training and illustrating a proposal addressed to all stakeholders, aiming to provide health evidences in terms of impact of housing hazards on health and to describe good building practices, helpful in order to obtain safe and healthy homes.

Introduction

The role of housing conditions on health is a well-known and age-old problem (1, 2), due to their direct and indirect effects (3), that has found new insights in the last few decades (4). At global level, housing becomes increasingly important for health, due to social, demographic and climate changes. As recently underlined by the World Health Organization (WHO) (5), poor housing conditions are associated with a wide range of health hazards, including falls, injuries, psychological distress and isolation (e.g. poorly accessible houses). Inadequate

heating contributes to an increase in poor respiratory and cardiovascular outcomes, while excessive indoor temperatures can cause heat-related illnesses and increase cardiovascular mortality. Indoor air pollution, mainly related to the windows being sealed to reduce heat dispersion and to the use of unsafe products and materials (6), is related to a wide range of non-communicable diseases (mainly respiratory and cardiovascular) and may trigger allergic reactions and asthma. The likelihood of being exposed to infectious agents increases in crowded dwellings. Inadequate water supply has led to a large number of derogations, ordinances and

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public notices issued during the last years in the European countries (especially in Italy), the population distrust of drinking water of quality has increased (7-9). Moreover, scarce sanitation facilities affect food safety and personal hygiene, and therefore lead to the development of communicable diseases. At the same time, there is a close relationship between housing and surroundings, since health depends on the quality of the indoor environment, but also on the social and environmental opportunities related to the outdoor space (e.g. green areas, sport facilities, footpaths for walking, etc.) (3, 10, 11). Therefore, improving housing conditions and reducing health risks in the home is extremely important and contributes to achieving the United Nations' Sustainable Development Goals (SDGs), mainly SDG 3 and SDG 11.

Regarding Italy, in the last decade several phenomena have contributed to modify the social and economic profile of the country, increasing the population groups unable to support an adequate dwelling, mainly in greater urban areas (3). First of all, the economic crisis must be considered. Victims of the recession are, for example, young couples, either jobless or without stable employment and unable to find affordable housing (3). Furthermore, there is a portion of the population (the so-called "gray band"), for whom some social "traumas" can represent a real steep slide towards poverty. Among them, above all, there are people who have lost their jobs, but also separated or divorced couples, often with dependent children, that need two dwellings, thus increasing living costs (3); the latter shows an increasing trend, reaching 339.8 separations and 297.3 divorces, respectively per 1,000 marriages in 2015 (12).

At the same time, international instability has led to large scale immigration. In 2017 the number of asylum seekers' applications submitted in Italy totaled 130,000 units (data from the Ministry of the Interior). According

to the National Institute of Statistics (ISTAT) (13), foreign residents in Italy number over five million (about 8.5% of all residents). If non-resident regular stayers and irregular migrants are added, an estimate of over six million foreigners live in Italy (14). This number was lower in the past; this growth was characterized by a change from a transient to a labor migration, and then to permanent settlement. There has also been a gender rebalancing, partly due to the recent addition of some female flows (e.g. from Eastern Europe and the Philippines), but also to family reunifications; at the same time, the number of minors grew, followed later also by newborns. As a consequence of all these phenomena, in Italy the housing demand has increased, especially in larger urban areas (6). Since the ability of the Municipalities to satisfy this request has been insufficient (6), a large use of inadequate residential spaces, like semi-basements and garrets, has been observed (15-18). These dwellings are usually not licensed for housing usage, but are offered at a price well above their real value (6).

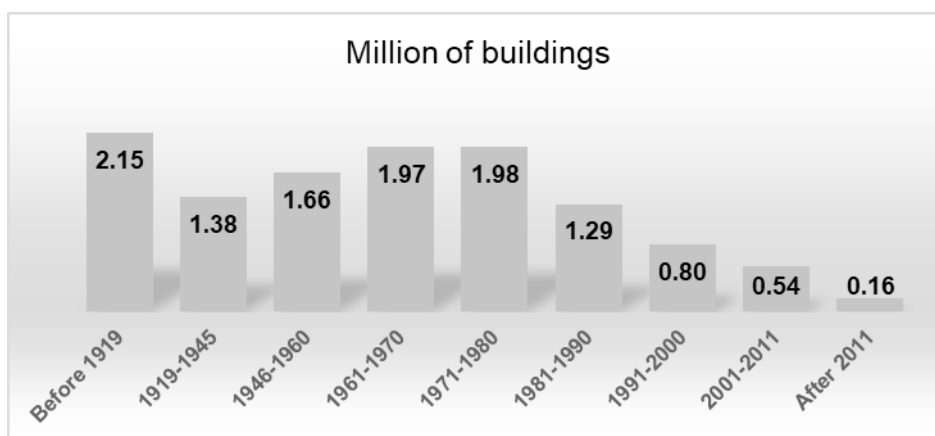
Another relevant issue is linked to the longer average lifespan. The increase in proportion of the elderly population has a huge importance and this is set to grow, considering that, as reported by WHO (19), the number of people aged over 60 will double by 2050 and, as a consequence, the number of people with functional impairments will rise. In particular, the eldest fraction of the population, who spend a larger proportion of their time at home, show peculiar housing needs (e.g. accessibility, space for assisted mobility, etc.). Italy has one of the oldest and most aging populations in the world and the aforementioned issues have not yet been solved, as most homes, especially the older ones, do not fulfill accessibility requirements, having several indoor barriers (e.g. stairs, inadequate space for wheelchair movements, etc.).

Finally, the changing weather patterns associated with climate change underline

the need for a housing providing protection from cold, heat and extreme weather events (20), but also from earthquakes and floods. In the last years, several natural disasters have occurred in Italy, as it is one of the most earthquake- and floods-prone countries in the Mediterranean area (21) and is characterized by a very degraded surface water regime. According to the Ministry of the Environment, around 2.6% of the national territory is at risk of flooding (22); since the beginning of the 21st century, more than 4,000 events linked to hydrogeological instability have occurred, due to landslides and floods, 380 of which caused considerable damage to buildings and infrastructure, but above all, with hundreds of deaths and a large number of displaced persons (23). The most relevant consequences occur in areas of “uncontrolled” urbanization, often characterized by “abusive” and “irregular” construction activities. For these reasons, understanding and preventing the risks and impacts related to climate change in the territory, with specific attention to urban areas, is now an acute health priority (24).

Housing buildings heritage in Italy

According to the CRESME (Economic and Social Research Center of Building Market) estimates (25), the Italian heritage counts 15 million buildings, 79.3% of which (11.9 millions) for housing use. About 60% of these were built before 1970 (Figure 1). This means that the buildings heritage shows several structural and plant problems, involving high energy consumption, with increases of management costs and environmental pollution, and several safety failures (26). In fact, about 20% of Italian families declare the presence of damages caused by damp located on walls, floors, ceilings or in foundations (27). Eurostat estimates that about 27% of the Italian population live in overcrowded dwellings (28), with increased risks for health. Furthermore, other studies performed in some Municipalities have described the presence not only of damp, but also of many other hygienic and safety issues (17, 18) especially in dwellings rented to foreigners or poorer people.



Source: CRESME, 2017 (24).

Fig. 1 – Italian building heritage by age

Moreover, in Italy the illegal buildings index, defined as the number of illegal buildings per 100 buildings authorized by the Municipalities, shows an increasing trend, moving from 11.9% in 2005 to 19.1% in 2018 (29). In particular, the index shows a large variability among Italian Regions: between 2015 and 2019, against a reduction in the North-West (from 7.2 to 5.9) and the North-East (from 6.3 to 5.5), the index increases in the Center (from 19.0 to 20.7), in the South (from 40.0 to 49.9) of the Country and in the Islands (from 45.3 to 47.1) (30). This index can be considered as a proof of the lack of compliance with the law in land use, but also provides a proxy measure of landscape deterioration and of environmental “fragility” in the case of earthquakes, landslides and floods. Many tragic events, reported in the chronicles in various parts of the country, well document the consequences of these phenomena (31-33).

The public housing supply has gradually been reduced due to the disinvestment process, which began in the 90s and has led to a strong decrease in the building heritage. The total endowment is thus inadequate, making it possible to safeguard just over 700,000 households, representing about 1/3 of the demand (34). For this issue, Italy is at the bottom of the European rankings in terms of social housing. The economic crisis involving a significant portion of the population reduced people's ability to afford the rent costs. According to the Ministry of the Interior (35) there were a total of 61,718 orders of forced eviction in 2016 and, among these, 88.8% was due to non-payment. In summary, about one Italian family in 419 is involved in this large-scale eviction, as already denounced by the scientific community (35).

Due to the impossibility of the municipalities to quickly respond to the growing housing demand, in the last few years many questionable local political decisions were made, starting from the various “building

amnesties” implemented from the ‘80s, up to the permission to live in improper spaces such as basements and garrets, modifying the hygienic requirements defined in the national regulation, by multiple derogations (36).

As a result, the number of illegal rental contracts increased, often making inadequate spaces inhabited (3), and more than 30,000 dwellings of the public housing stock today result illegally occupied (34).

Need for regulation and training in housing and health issues

As argued by WHO (5, 37), housing is one of the most relevant issues in public health and the policy-makers need to address it as a major priority, considering the potential relapses that the improvement of housing conditions could reflect on the primary prevention of a wide range of diseases and injuries.

Obviously, the occurrence and re-occurrence of pathologies related to the quality of dwellings highlights the need to provide updated and rigorous requirements for the built environment and, in particular, for residences (6, 36, 38-40), but also the need for an adequate training of all actors involved (3, 41). Indeed, as underlined by WHO (37), healthy housing is a complex issue and a multisectoral responsibility, achievable only if a contribution is offered by all relevant players, including not only public health officers, but also housing engineering and construction industry, environment, social welfare, urban planning, and building management.

In particular, in Italy today, the housing demand has to satisfy several new needs: an increased demand for public housing, for high energy efficient buildings, and for flexible houses capable of satisfying the needs of the elderly and of managing epidemic situations (such as the current one relating to COVID-19), allowing the isolation of

subjects, ensuring adequate privacy for adults and children (42, 43). But housing also shows an increased demand for low-cost dwellings, for small flats for single people or for smaller households, and for a housing stock capable of meeting the needs of foreign nationals, whose living habits frequently differ from ours (e.g. the Roma population). Finally, there is a rising request for the so-called “temporary living” phenomenon, which involves not only those without stable employment, but also young students, managers and professionals in the show business sector, and migrant workers, all of whom find it difficult to obtain an adequate response to their short-term residence demand.

In order to provide effective answers to these problems, some Italian Regions developed co-housing experiments; this is an interesting approach to housing in which tenants share many home facilities (e.g. kitchen, laundry, etc.) and where it is easier to develop a social network, increasing opportunity for co-operation among tenants to satisfy several families’ needs (e.g. childcare, assistance to the elderly, etc.) (44). This mutual support, in a sense, reproduces the family support of the past, even helping tenants to find and/or to maintain a job, thus improving his/her autonomy and self-respect.

What emerges clearly from the scientific literature (3, 6, 10, 11, 45) is that, in order to guarantee good health standards, nowadays it is indispensable to direct political and administrative choices in order to improve the overall conditions of the environmental system (urban area) (46) and of the buildings within. In concrete terms, even for the construction of new buildings, it is not enough to limit sustainability to the solution of energy efficiency alone; it is also necessary to aim for integrated designs, serious certification systems, and lifestyles consistent with these principles. Therefore, evaluating a healthy living environment implies taking into account, not only the single housing unit, but also the environmental

context within which it is inserted, paying particular attention to the solutions adopted regarding environmental sustainability and adaptation to climate changes. The dwelling, intended as an integrated model that connects the internal dimension of the housing unit (associated with the well-being of the family and the individuals who live there) to the external dimension (connected to the environmental and economic context and social cohesion) (10), allows to grasp the complex relationships between the built environment and human health. Despite the increased difficulties, the same targets must be reached for the renovation of residential buildings, which could meet the Italian priority of the reduction of soil consumption. The lawmakers, especially at a regional level, have already acted in order to facilitate the re-use of existing buildings, even, if deemed necessary, derogating national hygienic requirements, not always with good sanitary results (47, 48).

These aspects are considered central by the WHO (10) and are taken into account in many European building codes (47). In particular, the factors to refer to are: (a) the quality of the construction site, (b) the relationship between the building and its context, (c) the presence and quality of the greenery and (d) the open spaces surrounding the building, as well as (e) all the measures attenuating the building’s impacts on the environment and vice versa, as well as (f) the application of a building management integrated approach for its maintenance and safety (24). In Italy, the introduction in 2016 of the National Building code (49), already adopted by some Italian Regions, attempted to overcome this gap, integrating several regulations into a single one. However, for health standards related to housing, it refers to a previous ministerial decree (50), which requires updating, given that 45 years have passed since it was approved!

Therefore, without a clear national legislation on hygienic requirements, it is easy

to understand how difficult the daily practice for both designers and Public Health Officers can be (36, 47). To these latter, in particular, the current legislation attributes a narrow role regarding the design and construction choices for new buildings and restorations. Consequently, the relevance attributed to health in the design solutions proposed mainly depends on the competence of designers and on the responsibility of the builders (3).

The Public Health Officers in this field, as underlined by the National Prevention Plan (51), have to mainly focus on the definition of health standards for building, but also to increase their role in health advocacy, health surveillance and in promotion of stakeholders' training in good building practices, in order to realize "Healthy Homes".

It has to be argued that in Italy the training curriculum of the public health students of previous generations has been mainly oriented to other issues. In a nationwide survey aimed at evaluating the knowledge and training needs regarding "Building Hygiene" of students in Italian post-graduate schools of Public Health, the results underlined a severe lack of theoretical education and practical training, alongside a strong, dissatisfied interest of the students on these topics (41). Public health officers also show similar shortcomings and require updating on urban health, on the health impacts of housing and on good building practices for health (52, 53). These shortcomings are partially related to a diminishment of role, identity and harmonized objectives regarding the "Building Hygiene" theme during the last decades.

At the same time, it is also important to extend the specific training among technical profiles (e.g. architects, engineers, surveyors) in order to favor design choices not only with low economic and environmental impact, but also sustainable from the health point of view, as indicated in the SDGs of the United Nations. At the moment, in Italy only

a few schools of Architecture and Building Engineering provide specific courses in Building hygiene in their students' training curriculum (Rome, Milan, Sassari). In the other schools some contents of this discipline are fragmented in other courses (e.g. bio-architecture, technical physics, sanitary engineering, etc.), mostly oriented towards environmental sustainability rather than health objectives.

Considering the role of living conditions as a major determinant of health, the current socio-economic situation and the increasing interest of housing and urban health (54-57), the training of Public Health Practitioners and of all other stakeholders in this field will become crucial in the near future. Therefore, creating the conditions to ensure that those who plan and design have full awareness and pay adequate attention to the potential health impact of their choices must become a central public health goal for the years to come.

Riassunto

Problemi abitativi in una società che cambia: bisogni normativi e di formazione in Italia

Il documento si concentra sulle tendenze sociali, economiche e ambientali degli ultimi anni in Italia, evidenziando il problema dell'emergenza abitativa, sia in termini quantitativi che qualitativi. Ciò che emerge sono diverse carenze abitative soprattutto nelle periferie delle grandi città, sottolineando la rilevanza di questo problema in termini di conseguenze sulla salute e la sua priorità per la definizione delle politiche locali. Gli autori sottolineano che la disponibilità di alloggi accessibili e salutarì è un diritto umano e una responsabilità multi-settoriale, ottenibile solo se viene fornito un contributo da tutti i settori pertinenti, inclusi alloggio, ambiente, assistenza sociale, pianificazione urbana, gestione degli edifici e sanità pubblica. Gli autori concludono sottolineando il ruolo strategico della formazione e illustrando una proposta indirizzata a tutte le parti interessate, con l'obiettivo di fornire evidenze sulla salute in termini di impatto dei pericoli per la casa sulla salute e di descrivere buone pratiche di costruzione, utili al fine di ottenere case sicure e sane.

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