

## Resilient architecture for territorial healthcare

Design guidelines: a new  
Community Hospital model.

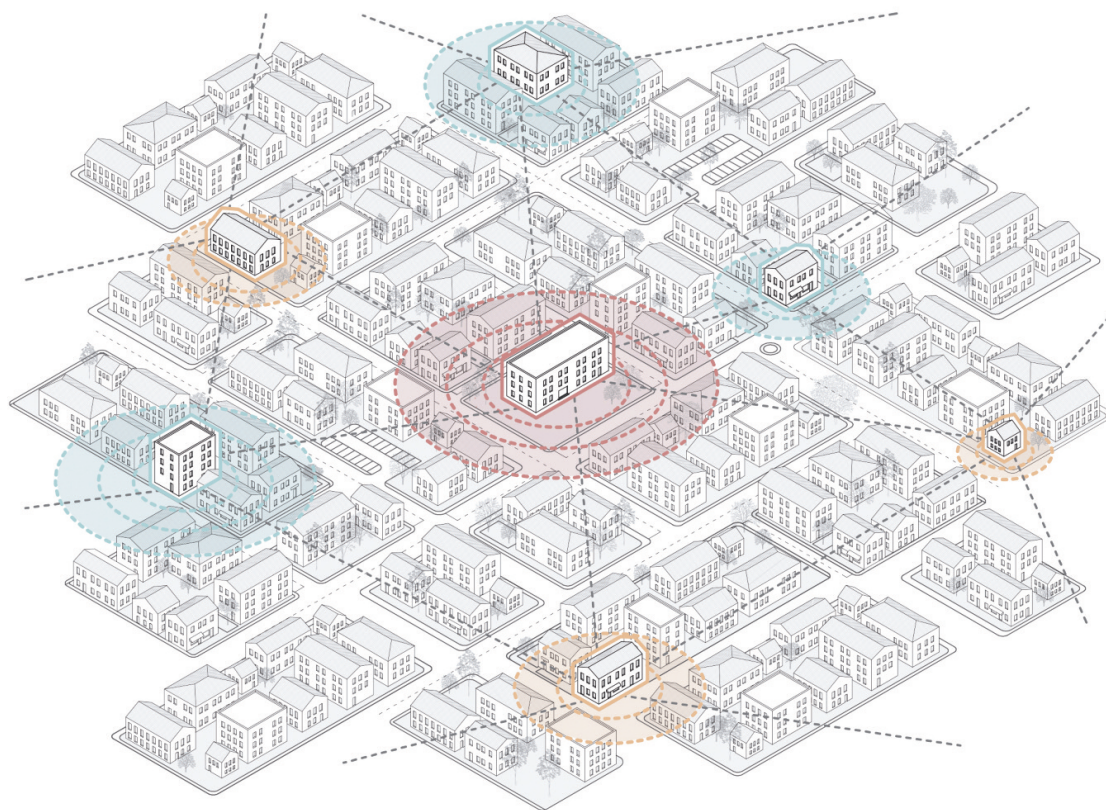
The experience of the Covid-19 pandemic has sparked a general debate about the Italian territorial healthcare system, highlighting the need to rearrange it in order to provide a more efficient response to unexpected future crises. These adjustments represent a great opportunity as they are now feasible thanks to the considerable financial support provided by the community funds and organised through the National Recovery and Resilience Plan. This research analyses and identifies Community Hospitals as potential tools to support the healthcare network, improving the system emergency response: therefore, it investigates resilience design strategies through the definition of a new model for Community Hospitals, comprising meta-design schemes and operative tools to support preliminary design, as well as an original evaluation tool to assess the adaptability of existing buildings to be transformed into proximity intermediate healthcare facilities. This work is conveyed through design guidelines for innovative and resilient Community Hospitals.



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# Architetture resilienti per la sanità territoriale

Linee guida per la progettazione:  
un nuovo modello di Ospedale di Comunità



Ricerche di tecnologia dell'architettura  
FRANCOANGELI

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## **1. Premise**

## **2. Lessons learnt from the Covid-19 pandemic experience**

*This chapter concerns the criticalities, strengths and needs of the Italian healthcare system, that have arisen since the outburst, in 2020, of the Covid-19 pandemic. These observations, originated from the emergency context, have been of utter importance for the development of this research: the rearrangement of the territorial services, and specifically of the Community Hospitals network, and the identification of resilient strategies are imperative for the efficient management of potential future crises.*

## **3. Opportunities for the development of local healthcare networks and Community Hospitals**

*In order to outline the context of this research, the aim of this chapter is to summarise the most important features of the Italian proximity healthcare system, starting from its uneven development on the national territory since the early 2000. Among all, the territorial facilities offer intermediate care services, which work as a functional connection between hospitals and home care. Community Hospitals are impatient primary health facilities, targeting patients that need low and medium care: these are small-scale facilities that offer great opportunities in terms of the future implementation of the proximity network, in order to improve the system response in case of emergency, thanks to the allocation of remarkable investments foreseen within the National Recovery and Resilience Plan.*

## **4. Nationals and regional regulations on Community Hospitals**

*Community Hospitals have been regulated by national and regional legislation only in recent years. As far as regulations are concerned, there are national indications that define the main re-*

*quirements and features of this healthcare typology. On the other hand, on a territorial scale, the scenarios are quite uneven: some Regions have proven to be more efficient than others in planning and developing these facilities. This chapter consists of a summary of the main national and, by way of example, some of the regional directives, in order to highlight the complexity of the regulatory framework and the differences in terms of territorial healthcare planning.*

## **5. The new Community Hospital design model**

*This section of the volume tackles the most essential themes for the definition of the new meta-design scheme for innovative and resilient Community Hospitals, which represents the core of this research. First of all, this chapter clarifies the main objectives of the model, proposing a compact, autonomous, resilient and open Community Hospitals, including in the design spaces for social and collective activities. The model also redefines the functional areas and spatial units, the mutual relations among them and the strategies and tools conceived to reach the above-mentioned goals. In addition, the analytical study of the minimum and ideal dimensions for innovative Community Hospitals allows to foresee the qualitative outcome of the hypothetical functional recovery of existing buildings, in combination with the diagrams showing the potential dimensional variations of the main spatial units of this healthcare typology. In conclusion, this section explores the operative principles and management of the emergency response of resilient Community Hospitals, engaging in the definition of the main resilience requirements.*

## **6. Evaluation tool for the repurposing of the existing building stock**

*In light of the definition of innovative functional and spatial schemes, to be employed also when operating with renovation and functional recovery for the integration of Community Hospitals within existing buildings, it is necessary to develop a specific evaluation tool to assess the suitability and adaptability of a specific site to be transformed into the new healthcare function. This could provide useful information to the competent authorities, should they establish whether and where to envisage the implementation of new Community Hospitals on a territorial scale. Therefore, this chapter*

*systematises the evaluation parameters on three different progressive levels: first, the social and urban context of the selected sites; second, the main characters of the existing buildings chosen for the transformation or integration of new Community Hospitals, and last, the criticalities related to the project, addressing the weight of the intervention and the economic resources to be considered.*

## **7. Application of the new model to four case studies**

*This chapter is aimed at providing an example of application for the evaluation system and, consequently, of a hypothetical meta-design scheme for four sites, identified according to their potential in accommodating a new and resilient Community Hospital. This analysis allows, on one hand, to guide the design action of those who decide to tackle the employment of the evaluation tool and meta-design model presented in this publication and, on the other hand, to collect data about the effectiveness of the defined systems, with the purpose of enhancing and refining them.*

## **8. Conclusions**

## **References**

### **Appendix: 10 Community Hospital case studies**

*The book's appendix includes 10 Community Hospital case studies from the Italian Emilia-Romagna Region, analysed through data sheets containing the following information: general description, location, year of construction, number of inpatient beds; dimensions; relation with the local healthcare network; room's types; plans 1:500; diagrammatic layout and plans; detailed list of areas and units and their dimensions.*

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