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## Earthquakes and climate change: hospitals response to emergencies



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Ahead of the Society of Italian healthcare Architecture and Engineering (SIAIS) congress taking place this week in Italy, HealthManagement .org spoke to SIAIS President, Daniela Pedrini about the wider role and issues facing healthcare buildings in the face of emergencies.

**Hospitals play a vital role in looking after the community during and after disasters such as earthquakes and flooding for instance. What does the sector need to do to be able to continuously improve how facilities can respond to such emergencies? Is there anything preventing this and how can it be addressed?**

SIAIS has dedicated its recent activity to prepare a full report on the EU situation for the European Chapter of "International Federation of Health Engineering". The report was delivered in June. The proposer and coordinator of the study will present it to our Congress of Teramo in September and in October at the IFHE-International in Brisbane. The study is launching the action of a survey in hospital management of the European public hospitals to test the awareness of policy makers on the importance of hospital resilience after climate change disasters.

**What innovations/ developments in health facility management/ buildings are you expecting to see presented during the National Congress of SIAIS in September?**

The programme of our National Congress 2018 is very rich, covering design, management and daily functional activities of healthcare facilities, mostly hospitals. The technical aspects are under the responsibility of most of our members in public hospitals in all regions of Italy and cover fire protection and general safety, standards and norms, with particular focus on the new norms of public procurement. The themes of seismic disasters and climate change will also be explored. These both need prevention measures but also adaptation and mitigation will be in the spotlight in the framework of the energy efficiency and other actions for environmental protection. SIAIS has been addressing this for several years, participating also in European projects with other Members States.

**Is healthcare IT playing a bigger role in the development of sustainable architecture and, if so, what and how?**

The evolution regarding architecture and technology of hospital and healthcare systems require more and more specialised, transversal and multidisciplinary skills. Just some of the themes that we will deal with in the congress are: the performance of the building information modelling (BIM) and energy efficiency as both are essential for the design phase. We will also put a focus on maintenance and management of buildings. Our Congress will hone in on the most advanced (and tested) concepts and knowhow, collaboration of medical and non-medical staff and patients and patients' representatives as all are fundamental for a sound, efficiently-made projects and construction.

The operational phase, the day by day functionality, has to be guaranteed by a team of competent and trained professionals, in constant collaboration and feed-back with all management and medical levels. Some sessions will be dedicated to Health Information Management Technology, Health Technology Assessment (HTA), new technologies, Virtual Reality (VR) and Artificial Intelligence (A-I). Robotics VR and AI are now important realities for health and wellbeing of people. Artificial Intelligence Technologies, for example, will increase the quality of patient services and will optimise the use of economic resources. Today Artificial Intelligence is "rewriting" the modern concept of Hospital and, in general, the entire healthcare delivery system.

**You must see a lot of innovation in terms of engineering, tech and architecture for sustainable healthcare facilities. Can you highlight some developments that you are optimistic about?**

One of the major aspects will be the new technologies for the design of new and more energy-efficient hospitals, and also improving existing ones. We have already mentioned BIM technology which has been used in the new hospital of Grosseto, as well as in the systemic reorganisation of the public hospitals of Tuscany. This has started with making new clusters of the regional hospitals, applying digitalisation and

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big data collection and use. These new IT tools have already shown their use in supporting the new model of patient-centred, hospital delivery care becoming one of the pillars of the continuity of care and tele-medicine.

**We were curious to see the inclusion of topics on veterinarian care in the congress. Why is this topic being covered in the SIAIS event?**

The architecture and engineering of veterinary medicine, for small and large animals, is very advanced. A centre of European excellence and distinctive for veterinary medicine was built in Teramo. Congress participants will be able to visit the new building.

**What would you like to see happen amongst delegates at the September SIAIS congress?**

The National Conference of SIAIS in Teramo will be an event in which professionals will increase their skills. It will also be a moment of confrontation and professional growth for the technical community in health infrastructures, skills, management and Innovation.

For more details go to: <https://healthmanagement.org/c/hospital/event/congresso-nazionale-s-i-a-i-s-2018>

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