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Risk communication about tsunamis in the Mediterranean Sea: challenges and pitfalls.

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Risk communication about tsunamis in the Mediterranean Sea: challenges and pitfalls.
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According to a deep-rooted conviction, the occurrence of a tsunami in the Mediterranean Sea would be very rare. Unfortunately, this belief is definitely false: at least 2,000 of the 80,000 victims of the great earthquake in Messina (1908) were due to the tsunami that followed earthquake (Boschi et al. 1995). In 1956, a 7.7 magnitude earthquake close to the Cycladic island of Amorgos (Greece) triggered large waves that also hit coasts of Amorgos, Astypalaia and Folegandros, with run-up values of 30, 20, and 10 mt(Okal et al., 2009).
More recently, in 2003 a relatively small tsunami caused by a 6.9 magnitude earthquake in Boumerdes (Algeria) hit the Western Mediterranean coast causing damage properties in at least eight harbours in Balearic Islands (Vela et al. 2011) and two little tsunamis occurred in Dodecanese respectively in 2016 and 2017.
Such events, that are just a little part of the over 290 historically known events occurred in the Mediterranean (Maramai, Brizuela & Graziani, 2014) should remind geoscientists that 1) tsunami hazard is everything but impossible and 2) tsunami come in all shapes and colours, and even a small event can result in serious damages and loss of lifes. In such a scenario, risk communication about Mediterranean Tsunami is a challenging enterprise.
According to Astarte project, which investigated people's knowledge, preparedness and attitudes to cope with Tsunami within six test sites across different nations, people have little knowledge about tsunamis, are likely to underestimate both probability and consequences of such events, and their understanding is significantly affected by media coverage (and social imagery) of big events such as the 2004 Sumatra Tsunami and the 2011 Tohoku Tsunami (Astarte, 2014).
In such a scenario, where low probability and high uncertainty match with poor knowledge and familiarity with tsunami hazard, risk communicators should avoid undue assumptions about public's supposed attitudes and preparedness, that may results in serious consequences for the exposed population, geoscientists, and civil protection officers. Hence, scientists must carefully shape their messages and rely on well-researched principled practices rather on good intuition (Bostrom, & Löfstedt, 2003).
For these reasons, the Centro Allerta Tsunami of the Istituto Nazionale di Geofisica e Vulcanologia, to ground an effective science communication strategy, promoted a survey to investigate tsunami's risk perception in two pilot regions of southern Italy, as to represent about 3.2mln people living in 183 coastal municipalities.
The research is based on a sample of > 1000 people, organized into six main sections: socio-demographic data and information on respondents' territory; knowledge and sources of information on tsunami risk; contextual perception of risk posed by tsunamis; social representations of tsunami; role of cultural attitudes and worldviews; messages and channels to be used for tsunami early warning.
Interviews will be administered within the end of February 2018, first data will be presented and discussed in this session.