Impact of natural hazards on the evolving COVID-19 pandemic: cases from Greece

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EGU General Assembly 2021

HELLENIC REPUBLIC
National and Kapodistrian University of Athens
EST. 1837

GEOLOGICAL, HYDROLOGICAL AND METEOROLOGICAL HAZARDS AMID THE COVID-19 PANDEMIC IN GREECE

Among the most destructive events generated amid the COVID-19 pandemic in Greece in terms of human and economic losses were the 21 March 2020, Mw = 5.7, Epirus (northwestern Greece) earthquake, the 9 August 2020 Evia (central Greece) flood, the 17 September 2020 Ianos medicane and the 30 October 2020, Mw = 7.0 Samos (Eastern Aegean Sea) earthquake.

STUDY ON THE PANDEMIC EVOLUTION IN THE DISASTER-AFFECTED AREAS

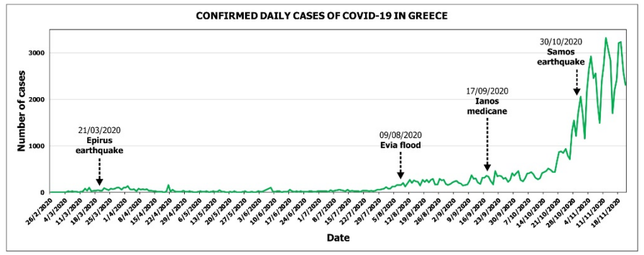
In order to identify the potential impact of the aforementioned disasters on the evolution of the COVID-19 pandemic in the disaster-affected areas, the officially reported laboratory-confirmed daily COVID-19 cases for the pre- and post- disaster periods from the disaster-affected areas were used for selected pre- and post- disaster periods.

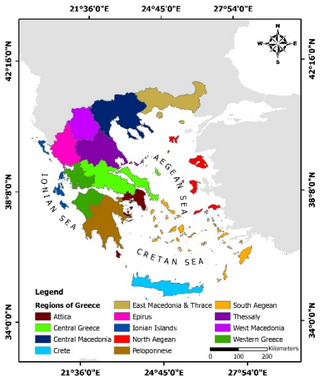
RESULTS

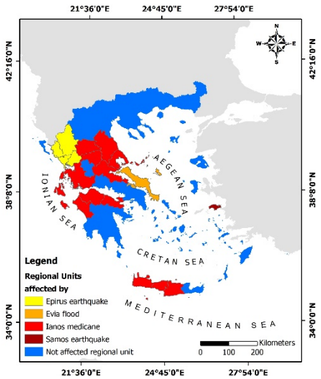
As it is shown in graphs below, the impact of disasters in the evolution of the pandemic in the studied disaster-affected areas comprises increasing and decreasing trends and stability of the COVID-19 cases during the post-disaster period. The earthquakes and floods negligibly affected the evolution of pandemic in the affected areas, while the Ianos medicane resulted in increasing trends of the post-disaster reported COVID-19 cases in various affected areas.

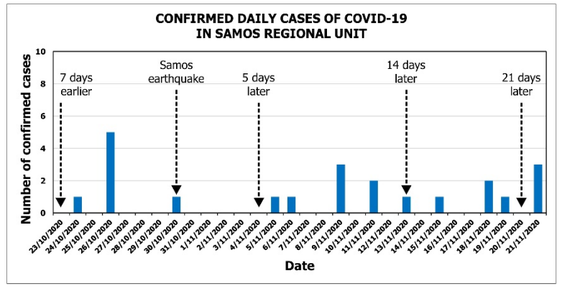
CONCLUSIONS

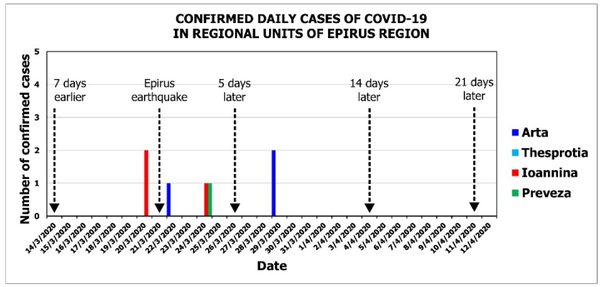
The detected trends are strongly associated with the pre-existing viral load and infection rate in the disaster-affected areas and the adapted emergency response actions for the mitigation of natural hazards effects and elimination of COVID-19 consequences. Additionally, they are related to demographic features of the affected population and the intensity of the induced disasters and their effects on the local population (fatalities and injuries), the natural environment (primary and secondary environmental effects) and the built environment (structural damage to buildings, infrastructures and lifelines).

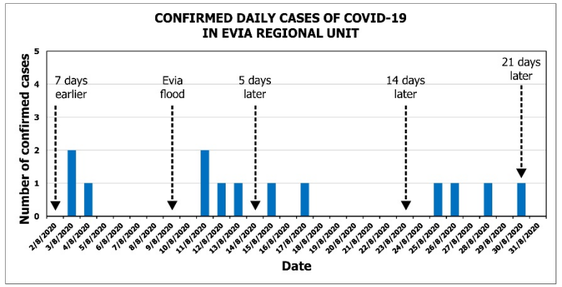


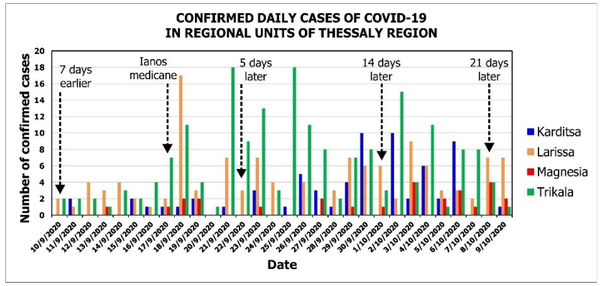


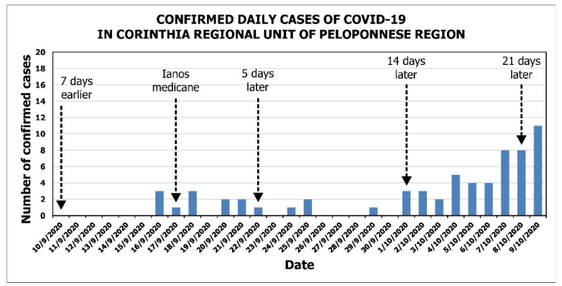


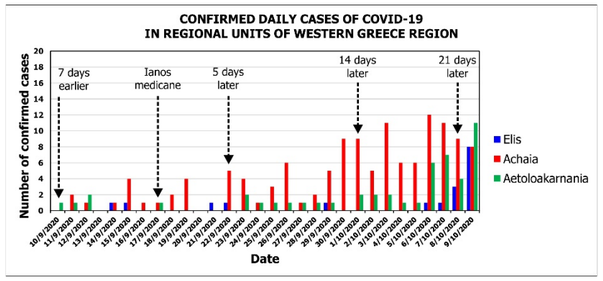


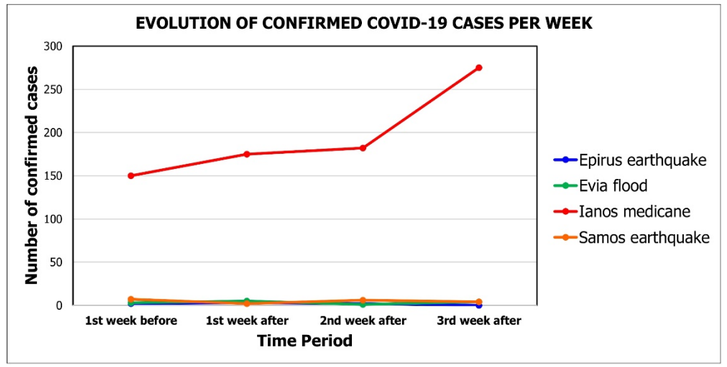


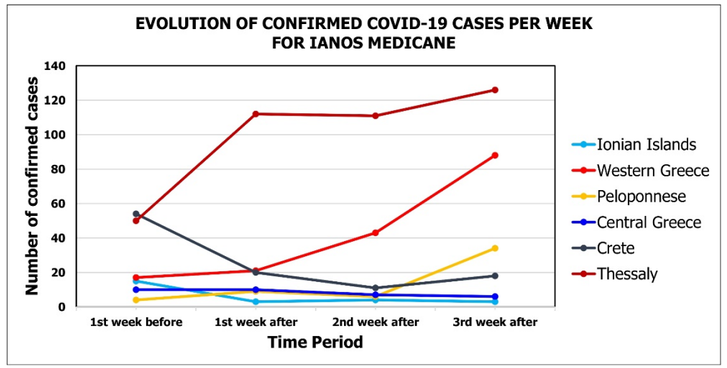












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