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Goal 3: Ensure healthy lives and promote well-being for all at all ages



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## Maps: The Main Communication Tool in the Face of COVID-19

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The COVID-19 pandemic studies, originated in Wuham (Hubei, China), has been the matter of numerous cartographies elaborated and published by social media, social networks, public organisms, universities and research centers.



Original map by Valentine Seaman (ALTONEN, B. (s.f.). Second original map from Seaman's article. Public Health, Medicine and History. https://bit.ly/39a3SZP).



Snow's map (FRERICHS, R. (s.f.): Mapa de John Snow, UCLA, Department of Epidemilogy. https://bit.ly/3cf8Bvg).



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There are pioneering activities such as those developed in the 18th century by Seaman and Snow. Both used cartography as a tool to identify the causes and delimitation of the affected areas in the spread of yellow fever and cholera, respectively. Since then, disease maps have become a common tool in epidemiological studies.





Dashboard John Hopkins University (JOHN HOPKINS UNIVERSITY, 2020) COVID-19 Dasboard by the Center for Systems Science and Enginnring (CSSE) at John Hopkins University. https://bit.ly/3cccmS0).

Distribution of COVID-19 cases on February 12, 2020 (OMS, 12 de Febrero de 2020. Novel Coronavirus (2019-nCoV) Situation Report-23. https://bit.ly/3r7H2bi).

The cartography related, makes it possible to trace the facts, being compared with other equivalent geographical sites, analyze the relations which may be produced with other different situations on the same place and make the right and appropriate timely decisions referred to the territory at all time.

The challenge faced by the health systems of any country in the face of a pandemic like this is to avoid the collapse of the Intensive Care Units (ICU), to know in advance the needs that may be had based on different scenarios, to foresee where they will produce new outbreaks, identify patterns and trends in the spread of the disease, etc.

All published maps provide information on where and how many cases have occurred, that is, it is an exposure mapping that shows, in absolute or relative values, the distribution of cases of people affected by COVID-19 in different territorial breakdowns. But the preparation of early warning maps is pending, that is, those that warn us of new risk situations to reduce the severity of their impacts as much as possible.

Genomic epidemiology of novel coronavirus - Global subsampling



Map of patients infected by COVID-19 or suspected of being infected in the records of the Health Centers in Aragon, and map of the variation of the situation between April 4 and 11, 2020 ((IUCA, 2020, Tasa de Frecuentación COVID-19, IUCA. https://bit.ly/3978cJ3).



CORONAVIRUS (COVID-19) Global INNOVATION STARTUP MAP by StartupBlink. https://bit.ly/3rf0tiz

The development of information technologies, the ease of use and the access to open data by anyone might contribute to a new concept of map, but there is no doubt that geography and its own tool by excellence, cartography, have become essential for any type of problem related to the territory, in this case, the COVID-19 pandemic.



Genomic epidemiology of novel coronavirus – Global subsampling (NEXTRAIN, 2020, Genomic epidemiology of novel coronavirus - Global subsampling. Nextrain. https://bit.ly/3sa7lPo)

Ultimately, cartography allows us to track the facts, compare them with those of other equivalent geographic units, analyze the relationships that may occur with other facts in the same place and make the most appropriate decisions at all times related to the territory, responding to questions such as : Where is the most vulnerable population concentrated? What population displacements occur in a specific area? How are the sanitary facilities distributed and how many people are cared for in them?

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