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MAGAZINE

COVID-19. Social distancing measures have allowed China to stop the spread

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The study of an international team led by the Bruno Kessler Foundation of Trento and the Fudan University of Shanghai has been published in the journal Science

Social distancing measures have allowed China to stop the spread of COVID-19 and children are less susceptible to the infection than the elderly. These are the results of the study of an international team led by the **Bruno Kessler Foundation** of Trento and the Fudan **University of Shanghai** published in the journal Science.

China was the first country to face the coronavirus emergency and was able to successfully control its spread. This led scholars to conduct an analysis to identify the factors that determined the breakdown of the spread in China. The study showed a 7-8-fold reduction in the number of people contacted per day during the lockdown period in Wuhan and Shanghai and also found out that children are around 4 times less susceptible to infection than the elderly. By using mathematical models, the authors estimated that this reduction in social contacts alone is sufficient to contain the spread of COVID-19.

“By asking about 2,000 inhabitants of Wuhan and Shanghai to keep a diary of their daily contacts before and during the Chinese lockdown,” explains the FBK researcher **Marco Ajelli**, who coordinated the study, “we were able to estimate the change in the number and the type of contact had by people during the implementation of social distancing measures “. “The number of contacts”, Ajelli continues, “decreased from 14-19 per day before the start of the epidemic to about 2 contacts per day, the vast majority of which with family members. Furthermore, by analyzing the data on over 7,000 contacts from 136 cases of COVID-19, we were able to estimate that children have a risk of getting infected about 3 times lower than adults and 4 times lower than the elderly. Through the use of computer-based simulation models, we were then able to show how the social distancing policy adopted in China allowed to control the spread of the infection.”

“Italy”, **Stefano Merler** of FBK underlines, “has followed China in adopting a rigorous policy of social distancing which is now giving the hoped for results, with a recent reduction in the number of new registered cases, hospitalizations and deaths caused by the coronavirus. This study helps us understand the impact of such a policy and how important is that each person limits the number of his/her own contacts. The fact that children are less susceptible to infection is very positive in itself

but must not deceive about their possible role in the transmission of SARV-COV-2. As a matter of fact, they are also the ones with the highest number of social contacts, especially at school “.

Institutes participating in the research

- School of Public Health, Fudan University, Shanghai, China
- Hunan Provincial Center for Disease Control and Prevention, Changsha, China
- Fogarty International Center, National Institutes of Health, Bethesda, USA
- Laboratory for the Modeling of Biological and Socio-technical Systems, Northeastern University, Boston, USA
- ISI Foundation, Turin, Italy
- Fondazione Bruno Kessler, Trento, Italy

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