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# Italian Study Shows Ventilation Can Cut School COVID Cases by 82%

By [Reuters](#) | March 22, 2022



FILE PHOTO: A pupil receives a coronavirus disease (COVID-19) vaccination at a primary school in Naples, Italy, January 12, 2022. REUTERS/Ciro De Luca/File Photo **REUTERS**

ROME (Reuters) - An Italian study published on Tuesday suggests that efficient ventilation systems can reduce the transmission of COVID-19 in schools by more than 80%.

An experiment overseen by the Hume foundation think-tank compared coronavirus contagion in 10,441 classrooms in Italy's central Marche region.

COVID infections were steeply lower in the 316 classrooms that had mechanical ventilation systems, with the reduction in cases more marked according to the strength of the systems.

With applications guaranteeing a complete replacement of the air in a classroom 2.4 times in an hour, infections were reduced by 40%. They were lowered by 66.8% with four air replacements per hour and by 82.5% with six air replacements, the study showed.

Most of Italy's schools lack mechanical ventilation systems. Instead, teachers are urged to keep windows open when weather conditions permit.

If the most efficient systems were installed "we could pass from 250 cases per 100,000 students (the alert level set by the education ministry) to a rate of 50 per 100,000," the Hume foundation and the Marche regional government said in its press release.

The experiment was carried out between September 2021 and January this year.

Italy saw a rapid acceleration in COVID cases in December and early January, before a decline from mid-January until a couple of weeks ago.

They are now rising again, driven by a new strain of the Omicron variant, though new hospitalisations and deaths continue to decline.

The country has registered 157,904 deaths linked to COVID-19 since its outbreak emerged in February 2020, the second highest toll in Europe after Britain and the eighth highest in the world. It has reported 13.89 million cases to date.

On Monday the health ministry reported 32,573 new cases, against 60,415 the day before, while the number of deaths rose to 119 from 93.

(Reporting By Gavin Jones and Emilio Parodi, editing by Mark Heinrich)

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**Tags:** Italy, coronavirus, European Union, Europe, education

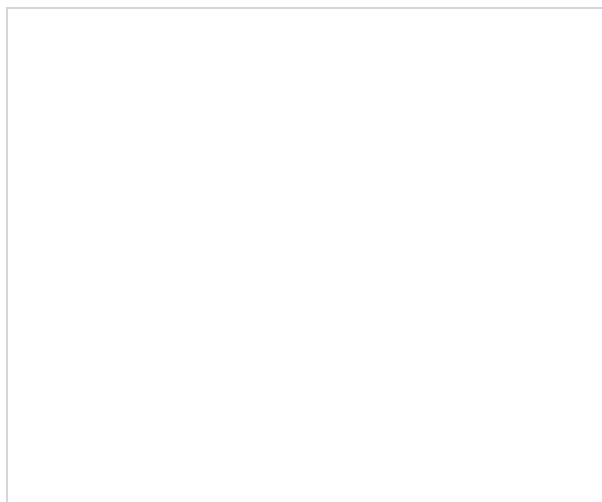


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