GCMSC Recommends Vaccinating Adolescent Population as Soon as Possible to Achieve Epidemiological Control of Pandemic

The Multidisciplinary Collaborative Group for the Scientific Monitoring of COVID-19 (GCMSC) advocates administering vaccines to 12- to 17-year-olds at their schools.

Barcelona, 12 August 2021. The Multidisciplinary Collaborative Group for the Scientific Monitoring of COVID-19 (GCMSC) has issued a statement arguing that, given the epidemiological circumstances in Spain, children between the ages of 12 and 17 years need to be vaccinated in order to achieve epidemiological control of the pandemic. After running various simulations using mathematical models, the GCMSC concluded that this age group should be immunised “as soon as possible”, taking advantage of schools as a vaccination venue.

While the vaccination coverage required to achieve herd immunity was initially estimated at 70%, the GCMSC statement notes that “the emergence of new variants, in particular the Delta variant, has prompted the recalculation of the herd immunity threshold, which is now expected to be closer to 85%”. Faced with the “unprecedented challenge” of achieving such a high level of vaccination coverage, the GCMSC experts recommend considering alternative strategies to “get as close as possible to herd immunity or, failing that, to epidemiological or functional control of the pandemic, understood as a significant reduction in severe cases requiring hospitalisation, even if residual transmission is accepted”.

One such strategy could be to immunise a percentage of the adolescent population that would vary as a function of the vaccination coverage achieved in the adult population and the transmissibility of the virus. According to the mathematical model developed in collaboration with Martí Català and Clara Prats, modelling experts from the Polytechnic University of Catalonia (UPC), if the vaccination level of the adult population does not exceed 70%, it would be necessary to vaccinate between 30% and 50% of the population under 17 years of age, prioritizing the oldest (12- to 17-year-olds). Thirty-percent coverage of this age group would significantly reduce the number of cases of severe COVID-19, while 50% coverage would also achieve the objective of controlling mortality, provided that the transmissibility of the virus remains stable.
According to the model, **vaccination of minors would not be necessary if 80% vaccination coverage were to be achieved** in the adult population.

“In addition to helping us achieve epidemiological control—the closest thing to herd immunity—vaccinating adolescents would allow a **return to in-person school attendance without the need for preventive measures as strict as those implemented last year,”** writes the GCMSC.

The group also notes: “**We must aspire to universal vaccination**, and therefore the global community must **increase its vaccine production** in order to be able to supply doses to the planet’s 7.8 billion inhabitants.”

The GCMSC is an initiative of the Barcelona Institute for Global Health (ISGlobal)—a centre supported by the ”la Caixa” Foundation—and the Barcelona Medical Council (COMB), with the support of the Catalan Association of Research Centres (ACER).

The statement was authored by Quique Bassat, Julià Blanco, Adelaida Sarukhan, Magda Campins, Robert Guerri, Carles Brotons, Juana Díez, Míreia Sans, Josep M. Miró and Silvia de Sanjosé. Clara Prats and Martí Català developed the mathematical models and the group was supported by Antoni Plasència and Josep M. Antó.

**More information**

[Full GCMSC statement](#)

**About ISGlobal**
The Barcelona Institute of Global Health (ISGlobal) is the result of an innovative alliance between the “la Caixa” Foundation and academic and government institutions. The Institute was set up to contribute to the work undertaken by the international community to address global health challenges. ISGlobal has consolidated a hub of excellence in research and medical care that has its roots in work first started in the world of health care by the Hospital Clinic and the Mar Health Park and in the academic sphere by the University of Barcelona and Pompeu Fabra University. ISGlobal’s work model is based on generating knowledge through its scientific programmes and research groups and translating this knowledge into practice and policy through its Education, Policy and Global Development departments. ISGlobal is accredited as a Severo Ochoa Centre of Excellence and is a member of CERCA, the Catalan Government’s network of research centres.

**ISGlobal Press Department**