ENE-COVID19
NATIONAL STUDY OF SARS-CoV2 SERO-EPIDEMIOLOGY IN SPAIN

PRELIMINARY REPORT

May, 13th, 2020

EXECUTIVE SUMMARY

ENE-COVID19 is a *nation-wide comprehensive population-based longitudinal study on sero-epidemiology of COVID-19* in Spain. The aim of the ENE-COVID19 study is to estimate the prevalence of SARS-CoV-2 in the Spanish population by determining the presence of antibodies against the virus, and to study its temporal evolution.

This report summarizes the epidemiological information collected from *60,983 participants enrolled* in the first round of the ENE-COVID19 study, recruited in two weeks (April 27th to May 5th 2020 & May 5th to May 11th). A *specific insular survey has included 3,234 more participants* and its analysis is currently underway. The participation rate among eligible individuals is *62.3%;* and counting just people contacted, this rate has been *74.7%.*

This preliminary report describes only the analysis of *the reading of IgG isotype of the rapid test based on immunochromatography.* The serological results using a high performance immunoassay are still ongoing.

The estimated prevalence of IgG antibodies against SARS-Cov2 at Spain is **5.0%** (IC 95%: 4.7%- 5.4%). The prevalence is similar in men, **5.0**% (IC 95%: 4.6%-5.4%) and women**, 5.1**% (ICI 95% IC: 4.7-5.5%). By age, the prevalence is lower in infants, children and youth, while there are only moderate differences among higher age groups.

As regards to detection of COVID-19 by PCR, **83%** of the participants with a positive result of COVD-19 PCR have developed IgG antibodies against the disease. The prevalence is higher in suspected cases (without a PCR result) than in asymptomatic people. In addition, *the prevalence increases with the number of infection-related symptoms,* being particularly high in participants suffering from anosmia (43%). Finally, the proportion of IgG positive results among participants without symptoms was **2.5%**.

There is *relevant geographical variability*. By Autonomous Communities, the prevalence is lower than 2% in Asturias, Canarias, Murcia, Ceuta y Melilla, while in Madrid and Castilla-La Mancha it exceeds 10%; visually, in the map we can observe a cluster of provinces around Madrid, with prevalence figures close to or higher 10%. The percentage of positive cases is higher in those living in *large cities* (>100,000 inhabitants), being 6.4% (IC 95%: 5.8-7.1).

The *proportion of suspected cases of COVID-19* (participants with 3 or more symptoms or with anosmia any time since February) *was 20%*. The map depicting this proportion by province shows a similar central clustering around Madrid, although there are other high-prevalence areas. Focusing only on suspected cases that were symptomatic in the two weeks before recruitment, the proportion was higher in the first week than in the second week of this first round.

The results of this report are preliminary, since the high performance immunoassay serological results are not available. The second and third rounds of the study will allow us to evaluate the evolution of the prevalence as well as epidemiological changes in the population enrolled.

The ENE-COVID19 is the fruit of the combined effort of many professionals and of *the trust and generosity of more than 60,000 participants* giving their time, information and biological samples to help public health experts understand the COVID-19 epidemic in our country.