Understanding the drivers of vaccine hesitancy against COVID-19 in Portugal

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COVID-19 has become a public health emergency of international concern and many efforts have been made to contain the spread of the disease, notably the fastestever vaccine development. However, despite the high efficacy of the vaccines approved, their effectiveness is only observed when most of the population adheres to the vaccination process, thus being of utmost importance having low levels of vaccine hesitancy (VH). The VH is defined as the unwillingness to be vaccinated, regardless of the availability of vaccines, being usually related to doubts and worries towards vaccine efficacy and safety and, since the beginning of the Portugal vaccination process in December 2020, has been a heavily discussed topic among the Portuguese population. To understand what drives VH in the Portuguese population, we conducted a crosssectional study with older adults, teachers, and health professionals, funded by the La Caixa Foundation Social Research Call (LL-20-04-01). Though vaccine hesitancy

rates were very different among these groups (3.3%, 10%, and 12%, respectively), the main concerns associated with VH were similar across all populations. Worries about the vaccines' safety and efficacy were amongst the strongest determinants to higher VH rates. On the other hand, those who recognized the severity of COVID-19 complications and felt less concerned about COVID-19 complications after getting vaccinated were more likely to accept vaccination against the disease. This study resulted in a published dissemination paper (https://bit. $I_{y/35K7O4X}$), one submitted paper, under review in the scientific journal Vaccine and two published articles in indexed journals (Age and Ageing, 2022, 51(3):afaco13 and Eur J Clin Invest, 2022: e13785) that are featured in the WHO Global Research Database on Coronavirus Disease, Furthermore, it was awarded the 2^{nd} prize as the Best Poster Award at the 42nd Annual Meeting of the Portuguese Society of Allergology and Clinical Immunology (SPAIC).

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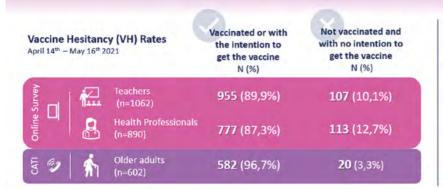
Interior (CICS-UBI)

Graphical Abstract.

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What drives vaccine hesitancy against COVID-19 in the Portuguese population?



-Ò- Main findings:

^{Ser} Lower VH rates:

Associated with perceived susceptibility and severity of COVID-19 infection and trust in vaccines' effectiveness

Higher VH rates:

Associated with concerns about vaccines' safety and effectiveness