

1 **SUPPLEMENTARY METHODS**

2 **Recruitment and data collection**

3 **Supplementary Table 1. Name of participating hospitals**

Hospital code	Hospital name
Low-incidence regions	
A	Hôpital de l'Enfant-Jésus du Centre hospitalier universitaire de Québec
B	Hôtel-Dieu du Centre hospitalier universitaire de Sherbrooke
High-incidence region	
C	Centre hospitalier de l'Université de Montréal
D	Centre hospitalier universitaire Sainte-Justine
E	Jewish General Hospital (CIUSSS du Centre-Ouest-de-l'Île-de-Montréal)
F	McGill University Health Centre (Glen site)
G	Hôpital général du Lakeshore (CIUSSS de l'Ouest-de-l'Île-de-Montréal)
H	Hôpital Maisonneuve-Rosemont (CIUSSS de l'Est-de-l'Île-de-Montréal)
I	Hôpital de Verdun (CIUSSS du Centre-Sud-de-l'Île-de-Montréal)
J	Hôpital du Sacré-Cœur de Montréal (CIUSSS du Nord-de-l'Île-de-Montréal)

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5 **Serological tests**

6 A subset of sera was analyzed using the second method, the NADAL® COVID-19 IgG/IgM
7 test. The NADAL® COVID-19 IgG/IgM test is a lateral flow immunoassay that detects
8 specific anti-S1-Receptor-Binding Domain (RBD) IgG/IgM directed against SARS-CoV-2. A
9 total of 10 µL of the blood sample is required. A sensitivity of 100% (≥35 days post-
10 infection) and a specificity of 98% was reported for this immunoassay in a Quebec-based
11 study(1). Three categories of participants were included in this subset: all those who had
12 reported a positive PCR test result (comparison of sensitivity), participants with an S1/S2
13 IgG test result between 3.8 and 14.9 AU/mL, and participants positive for S1/S2 IgG but
14 without PCR-confirmed infection.

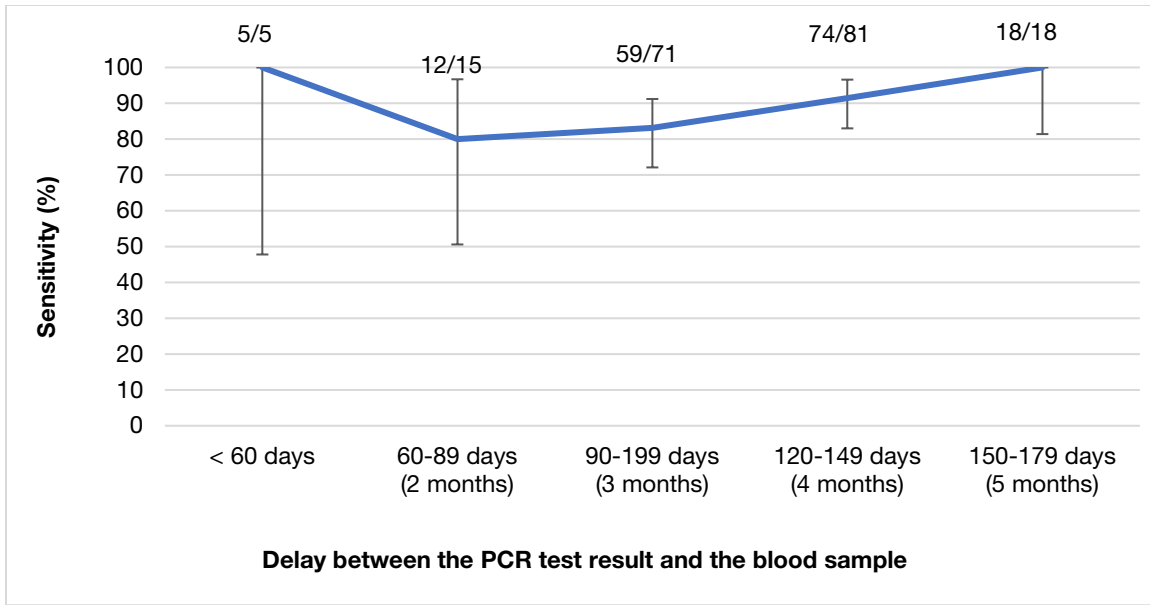
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SUPPLEMENTARY RESULTS

Laboratory results

S1/S2 IgG antibodies were present in 168/190 participants with a previous positive SARS-CoV-2 PCR (88.4%; 95%CI 83.0-92.6). Sensitivity was non-significantly higher in 170 HCWs who reported COVID-19 symptoms than in 20 HCWs who did not report such symptoms (89.4% vs. 80.0%; $p=0.23$). Furthermore, sensitivity did not decrease with time (Supplementary Figure 1).

The sensitivity of the anti-S1-RBD IgG/IgM assay was slightly lower (161/190; 84.7%; 95%CI 78.8-89.5) than the S1/S2 IgG assay. Among 22/190 HCWs with negative S1/S2 serology, 6 were positive with the anti-S1-RBD assay. Furthermore, among 146 additional HCWs whose initial result with the S1/S2 assay ranged from 3.8 to 14.9 AU/mL, only eight positive test results (5.5%) were obtained with the anti-S1-RBD assay. Considering these 14 additional positive results identified with the anti-S1-RBD assay, the overall seroprevalence would have increased by 0.3-0.8% in low (from 3.0% to 3.3%) and high (from 14.0% to 14.8%) incidence regions. Finally, among the 70 HCWs with a positive S1/S2 serology but no PCR-confirmed infection, 25 (35.7%) were negative with the anti-S1-RBD assay. Considering these 25 results as false positives, the overall seroprevalence would have decreased by 1.1-1.6% in low (from 3.0% to 1.4%) and high (from 14.0% to 12.9%) incidence regions.



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39 **Supplementary Figure 1.** Proportion of HCWs with S1/S2 IgG antibodies among 190 HCWs
 40 with a PCR-confirmed COVID-19 diagnosis, grouped according to the delay between the PCR
 41 test result and the blood sample. In the “5 months” category, IgG antibodies were found in
 42 the 18 HCWs who had a blood sample taken almost 6 months after their PCR-confirmed
 43 infection. HCWs: health care workers; PCR: polymerase chain reaction.

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45 REFERENCES

- 46 1. Therrien C, Serhir B, Bélanger-Collard M, Skrzypczak J, Shank DK, Renaud C, et al.
 47 Multicenter Evaluation of the Clinical Performance and the Neutralizing Antibody
 48 Activity Prediction Properties of 10 High-Throughput Serological Assays Used in
 49 Clinical Laboratories. *J Clin Microbiol* [Internet]. 2021;59(3). Available from:
 50 <https://journals.asm.org/doi/10.1128/JCM.02511-20>