

Supplementary Material

Title: Prevalence of SARS-CoV-2 IgG antibodies and their association with clinical symptoms of COVID-19 in Estonia (KoroSero-EST-1 study)

Journal: Vaccine

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Supplementary Content 1. Study questionnaire

1. Personal data

1.1.	First name	
1.2.	Family name	
1.3.	Patient ID	
1.4.	Age (in years)	
1.5.	Phone number	
1.6.	E-mail	
1.7.	Place of residence (county)	
1.8.	Number of family members living together	
1.9.	Form completion date (dd/mm/yyyy)	

2. History of COVID-19

	Yes	No
2.1. Have you had acute respiratory illness since March 1, 2020?		

2.1.1. If Yes, then date of becoming ill?/...../..... (dd/mm/yyyy)

	Yes	No
2.2. Have you had a COVID-19 PCR test (nasal swab)?		
2.2.1. If Yes, then did the PCR test confirm COVID-19 infection?		
2.3. Have you been in contact with someone who has been diagnosed with COVID-19 infection?		

2.3.1. If Yes, then date of the last contact?/...../..... (dd/mm/yyyy)

	Yes	No	Not sure
2.4. Have you been vaccinated against tuberculosis in childhood?			

3. Symptom history (only for those who answered Yes in 2.1)

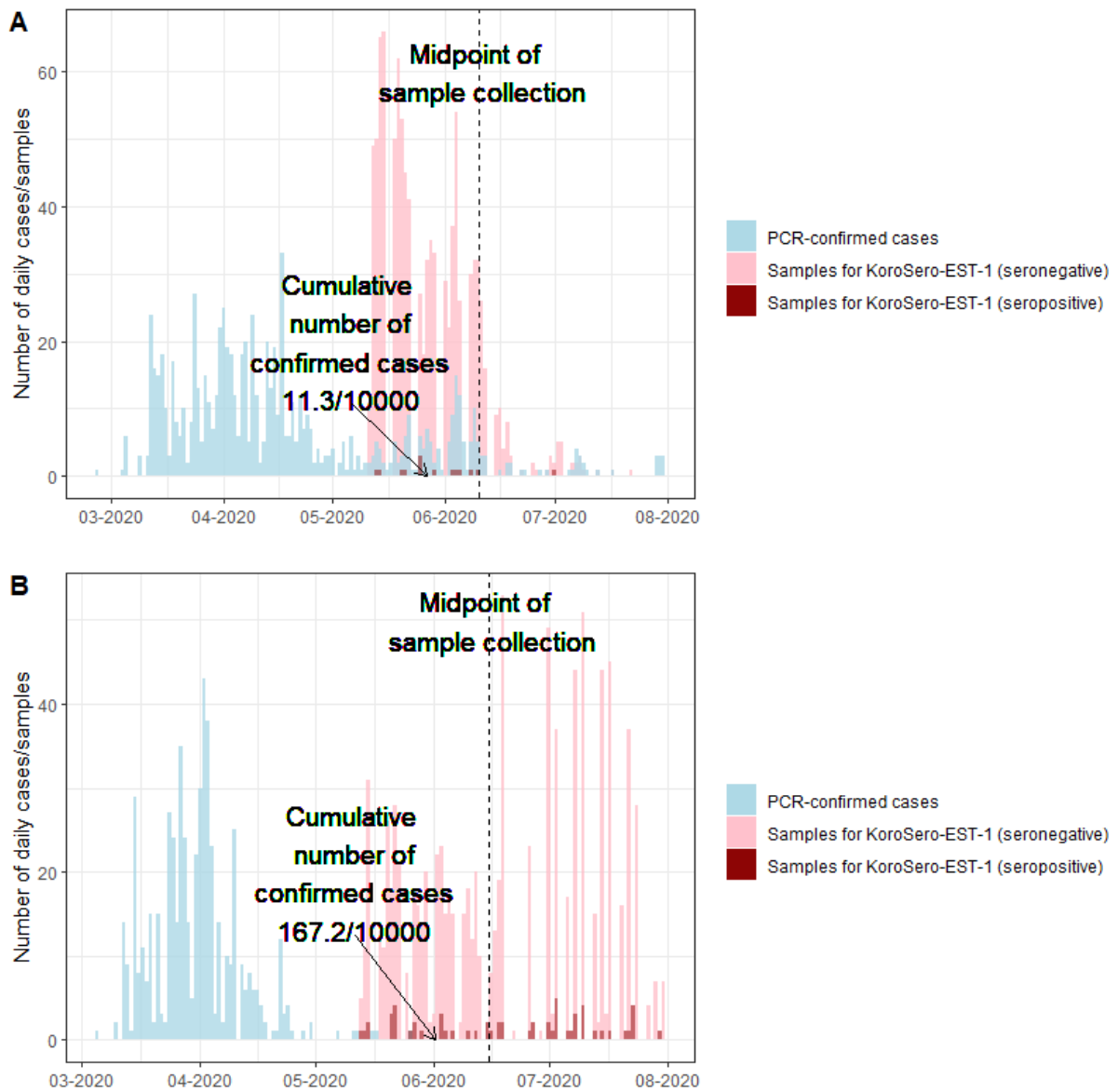
	Yes	No
Fever $\geq 38^{\circ}\text{C}$		
Chills		
Fatigue		
Muscle aches		
Sore throat		
Cough		
Runny nose		
Difficulty breathing		
Shortness of breath		
Chest pain		
Other respiratory symptoms		
Headache		
Nausea/vomiting		

Stomach ache		
Diarrhea		
Did any of these symptoms require you to seek medical attention?		
Did any of these symptoms require you to miss work?		
Did any of these symptoms require you to be hospitalized?		

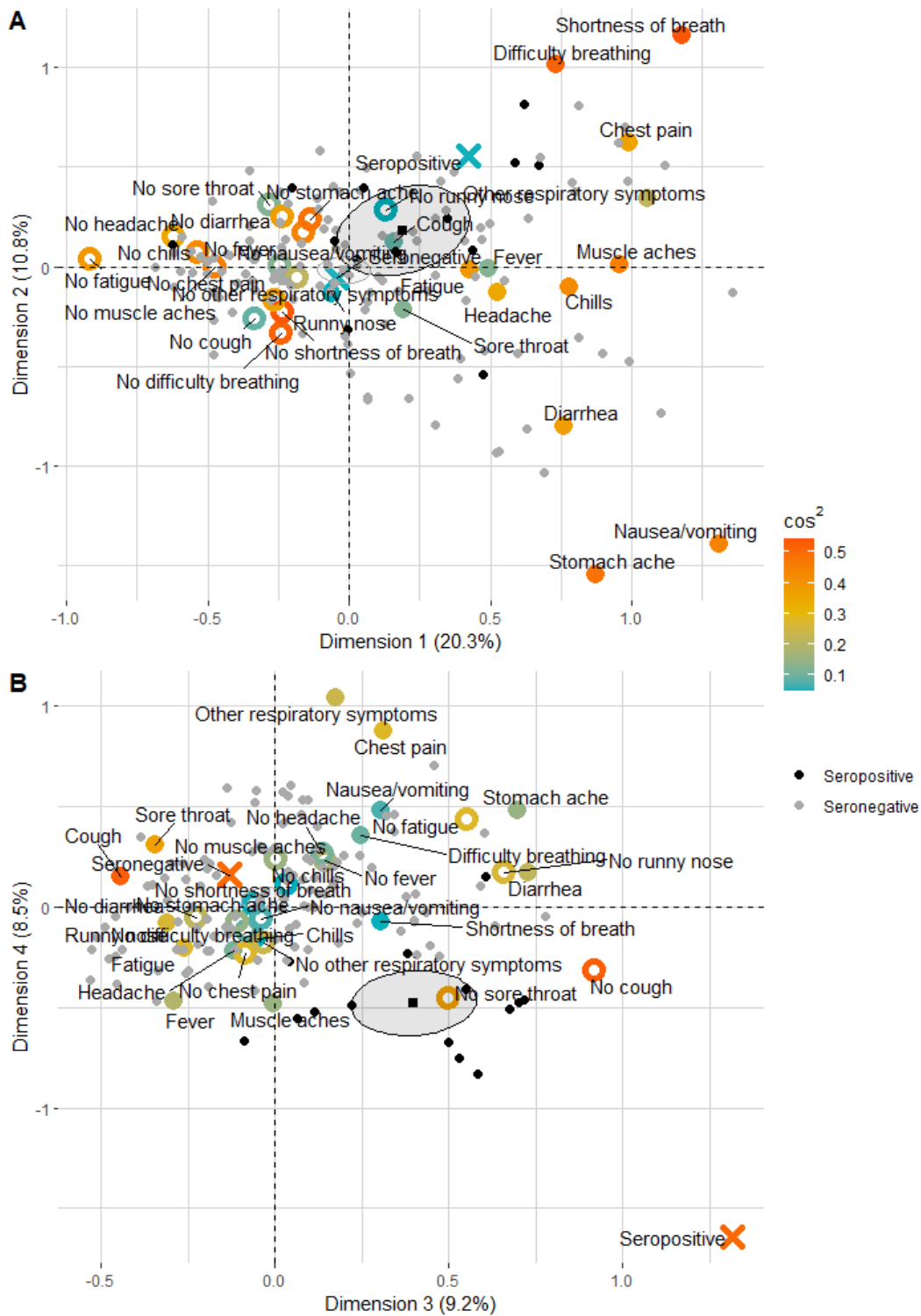
Supplementary Table S1. Seroprevalence and seroprevalence adjusted for test performance according to age groups and confidence interval

Age group (years)	Seroprevalence, % (95% CI)	Seroprevalence adjusted for test performance, % (95% CI)
Tallinn		
0-9	3.8 (1-9.4)	4.0 (0.8-8.1)
10-19	0 (0-3.4)	0.0 (0-0)
20-29	0.9 (0-4.9)	0.9 (0-2.9)
30-39	0.9 (0-4.7)	0.8 (0-2.8)
40-49	1.7 (0.2-5.9)	1.7 (0-4.5)
50-59	1.7 (0.2-6)	1.7 (0-4.6)
60-69	2.6 (0.5-7.4)	2.7 (0-6.3)
70-79	0 (0-3.2)	0.0 (0-0)
80-100	1 (0-5.6)	1.0 (0-3.3)
Saaremaa		
0-9	5.9 (2.2-12.5)	6.3 (2-11.7)
10-19	5.5 (2-11.5)	5.8 (1.8-10.7)
20-29	5.8 (2.1-12.1)	6.1 (1.9-11.4)
30-39	7.4 (3.5-13.7)	7.9 (3.4-13.4)
40-49	7 (3.1-13.4)	7.5 (2.7-13)
50-59	7.1 (3.1-13.5)	7.5 (2.8-13.1)
60-69	5.4 (2-11.3)	5.7 (1.7-10.6)
70-79	3.6 (1-8.9)	3.7 (0.7-7.8)
80-100	9 (3.4-18.5)	9.6 (3.1-17.6)

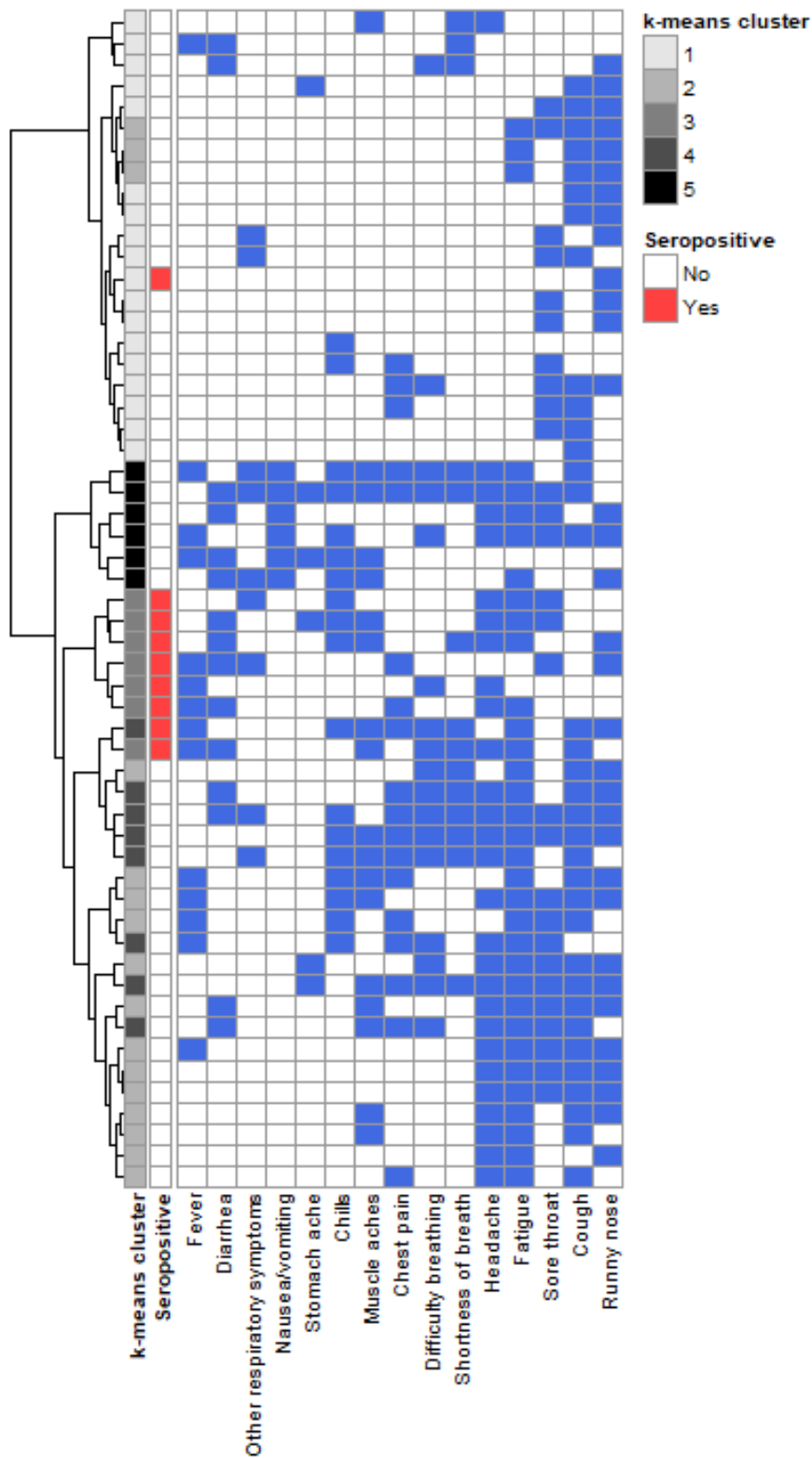
CI – confidence interval



Supplementary Figure S1. PCR-confirmed cases (blue) and number of seropositive (dark red) or seronegative (pink) serum samples drawn for the seroepidemiological study KoroSero-EST-1 (A) in Tallinn and (B) in Saaremaa



Supplementary Figure S2. Biplot of the dimensions (A) 1 and 2 and (B) 3 and 4 of multiple correspondence analysis on association between the presence (filled large dots) or absence (empty large dots) of symptoms and seropositivity (crosses) in all individuals with acute respiratory illness. The variables included in the analysis are colored according to the sum of \cos^2 of the variable on dimensions 1 and 2 or 3 and 4 on panels A and B, respectively. Grey and black small dots represent seronegative and seropositive individuals, respectively. Practices of gravity of seropositive and seronegative patients are shown by squares surrounded by 95% confidence ellipses. According to dimensions three and four seropositivity was associated with the absence of cough and the absence of sore throat



Supplementary Figure S3. Clustering of individuals aged 50 years or more with acute respiratory illness according to hierarchical clustering on components of multiple correspondence analysis and subsequent k-means consolidation into 5 groups (leftmost column, designated with different shades of grey). Seropositivity is shown in the second leftmost column in red. The presence of the respective symptom is indicated in blue. The majority (7/9) of seropositive individuals are grouped into a single k-means cluster containing no seronegative individuals.