

Author	Country	Study Location	Region	WHO UNITY	Geographic location	Publication	Study period	Study population	Sample method	Sampling frame	No.	Sero-positivity (%)	Method	Assay	Antibody	Sn (%)	Sp (%)	Score	Risk of bias	
<b>Household and community</b>																				
1	Knabl (16)	Austria	Tyrol, Ischgl	EU/EEA	Yes	City/local	Published <sup>a</sup>	21-27 Apr	GP	Random	HH/C	1473	42.4% (39.8 - 44.7%)	ELISA; CLIA	EUROIMMUN; Abbott laboratories;	Anti-S; IgA;IgG; anti-N IgG	NR	NR	8	Low
2	Wagner (17)	Austria	Vienna	EU/EEA	No	City/local	Pre-print	12-17 Apr	GP	Convenience	HH/C	1655	10.15%	ELISA; ELISA; CLIA; MN	EUROIMMUN; Beijing Wantai Biological Pharmacy; Enterprise; EUROIMMUN; Roche Diagnostics; In-house;	IgA;IgG; IgM, total Abs;IgG; Total Abs;NT- Abs	NR	NR	3	High
3	Ladage (18)	Austria	Weißkirchen/Wachau Pelt; Alken	EU/EEA	No	City/local	Published	1-15 Jun	GP	Convenience	HH/C	835	ELISA: IgG 8.5%; IgA 9.0%;	ELISA;	EUROIMMUN	IgA;IgG	NR	NR	5	Medium
4	Boey (19)	Belgium		EU/EEA	No	Regional	Published <sup>a</sup>	21 Sept - 6 Oct	GP	Random	HH/C	362	4.4% (low exposed - Pelt); 14.4% (high exposed - Alken)	ELISA;	Beijing Wantai Biological Pharmacy Enterprise; EUROIMMUN	Total Abs;	99.6%	NR	4	Medium
5	Bokonic (20)	Bosnia and Herzegovina	Republika Srpska	non-EU/EEA	Yes	Regional	Unpublished	4 Nov - 16 Dec	GP	Random	HH/C	1855	40.4%	ELISA	Beijing Wantai Biological Pharmacy Enterprise;	Total Abs;	94%	100%	N/A	N/A
6	Kunchev and Stoitsova	Bulgaria	Plovdiv	EU/EEA	Yes	City/local	Direct submission	18-May-13 Jun	GP	Random	HH/C	553	1.08% (0.5-2.35); 0.04% (0-0.12) <sup>§</sup>	ELISA;	EUROIMMUN	IgG; IgA	NR	NR	N/A	N/A
7	Statens Serum Institute (21)	Denmark	Copenhagen; Aarhus; Aalborg; Næstved; Odense	EU/EEA	Yes	National	Report	Apr	GP	Random	HH/C	1071	1.1% (0.5-1.8)	ELISA	NR	NR	NR	NR	6	Medium
8	Statens Serum Institute (22) (23)	Denmark	Copenhagen; Aarhus; Aalborg; Næstved; Odense	EU/EEA	Yes	National	Report	7 May - 9 Jun; 14 Aug - 1 Oct	GP	Random	HH/C	2444; 18000	1,2 (0,7-1,7);2,2 (1,8 -2,6)	ELISA	Beijing Wantai Biological Pharmacy Enterprise;	NR	NR	NR	9	Low
9	Petersen (24)	Denmark	Faroe Islands	EU/EEA	Yes	Regional	Published	27 Apr - 1 May	GP	Random	HH/C	1500	0.7% <sup>§</sup>	ELISA	Beijing Wantai Biological Pharmacy; Enterprise	IgM; IgG	94%	100%	9	Low
10	Jõgi (25)	Estonia	Tallinn; Saaremaa	EU/EEA	No	Regional	Pre-print	8 May - 31 Jul	GP	Random	HH/C	Total 1960; 1006; 954;	Tallinn: 1.5% <sup>§</sup> ; Saaremaa: 6.7% <sup>§</sup>	CMIA; CLIA; LIPS; LFA;	Abbott Laboratories; DiaSorin Liaison; In-house; Biosensor	IgG; IgG; NA; IgM/IgG	92.7%	99.9%	12	Low
11	THL (26)	Finland		EU/EEA	No	National	Report	13 Apr - 28 Dec	GP	Random	HH/C	4863	*see report	FMIA	In-house	NR	NR	NR	7	Low
12	Carrat (27)	France	Ile-de-France; Grand Est; Nouvelle-Aquitaine;	EU/EEA	Yes	National	Pre-print	4 May - 23 Jun	GP	Random	HH/C	14628	Ile-de- France: 10%; Grand Est: 9.0%; Nouvelle-Aquitaine: 3.1%;	ELISA; MN	EUROIMMUN; In-house	IgG	ELISA - S=97.9 %; ELISA - NP=50 .3%; SN=41 .4%	ELISA - S=97.7 %; ELISA - NP=99 .5%; SN=99 .5%	9	Low
13	Zakhashvili (28)	Georgia	Martvili; Kobuleti; Borjomi; Khelvachauri	non-EU/EEA	Yes	National	Unpublished	1 - 14 Aug 2020; 1 - 14 Dec 2020	GP	Random	HH/C	1218; 1219	August: 0%;0%;0.7%;1.3% December;44.3%;35 %;45.5%;51.3%;	ELISA; CMIA	Wantai Total Ab ELISA; Roche Diagnostics	Total Abs; Total Abs;	NR	NR	N/A	N/A
14	Tsertsvadze (29)	Georgia	Tbilisi	non-EU/EEA	No	City/local	Pre-print	18-27 May	GP	Convenience	HH/C	1068	1.02% (0.38-2.18) <sup>§</sup>	LFA	Zhejiang Orient Gene Biotech	IgG	93.1%	99.2%	6	Medium
15	Aziz (30)	Germany	Bonn	EU/EEA	Yes; No	City/local	Published <sup>a</sup>	24 Apr - 30 Jun	GP	Convenience	HH/C; Voluntary	Group 1: 4771; Group 2: 360;	0.97% (0.72-1.30%); 1.94% (0.84-4.42%)	ELISA	EUROIMMUN	IgG	NR	NR	7	Low

16	Streck(31)	Germany	Heinsberg	EU/EEA	Yes	City/local	Published <sup>^</sup>	31 Mar - 4 Jun	GP	Random	HH/C	919	14.1% (11.15% - 17.27%) §	ELISA	EUROIMMUN;	IgA; IgG	90.9%	99.1%	10	Low
17	Santos-Hövenner (32)	Germany	Kupferzell	EU/EEA	Yes	City/local	Published	20 May - 9 Jun	GP	Random	HH/C	2203	12% (10.4-14%) §	ELISA	EUROIMMUN;	IgG	88.3%	99.2%	10	Low
18	Weis (33)	Germany	Thuringia	EU/EEA	No	Regional	Published	12-22 May	GP	Random	HH/C	626	8.4%	ELISA; ELISA; CLIA; CLIA; CLIA; CLIA	EUROIMMUN; Epitope Diagnostics Inc. DiaSorin; Abbott Laboratories; Roche Diagnostics; Snibe Co.;	IgG	NR	NR	10	Low
19	Merkely (34)	Hungary		EU/EEA	Yes	National	Published	1-16 May	GP	Random	HH/C	10474	0.68 (0.5-0.86)	CMIA	Abbott Laboratories	IgG	NR	NR	6	Medium
20	Pagani (35)	Italy	Castiglione D'Adda	EU/EEA	Yes	City/local	Published	18 May - 7 Jun	GP	Random	HH/C	509	22.6% (17.2-29.1)	CMIA; LFA	Abbott Laboratories; Prima Lab	IgG	NR	NR	9	Low
21	Stefanelli (36)	Italy	Trento	EU/EEA	Yes	Regional	Published	5-15 May	GP	Random	HH/C	6075	25.7% §	CMIA	Abbott Laboratories	IgG	99.60 %	100%	10	Low
22	Guerrero (37)	Italy	Verona	EU/EEA	Yes	City/local	Published	24 Apr - 8 May	GP	Random	HH/C	1515	2.6%	CMIA	Abbott Laboratories	IgG	81.80 %	99.30 %	8	Low
23	Cito (38)	Italy	Villa Caldari, Abruzzo region	EU/EEA	Yes	Regional	Published	18-19 Apr	GP	Random	HH/C	687	10.9% (8.8-13.5%) §	ELISA	Beijing Wantai Biological Pharmacy Enterprise;	Total Abs	93%	100%	9	Low
24	Zuridin & Tatyana (39)	Kyrgyzstan	Bishkek City; Osh City; Chui; Osh; Jalal-Abad; Batken; Issyk-Kul; Naryn; Talas	non-EU/EEA	Yes	National	Unpublished	4 Jul – 12 Aug	GP	Random	HH/C	4780	32.5%	ELISA	Beijing Wantai Biological Pharmacy Enterprise;	Total Abs	95%	100%	N/A	N/A
25	Snoeck (40)	Luxembourg		EU/EEA	Yes	National	Pre-print	15 Apr - 5 May	GP	Random	HH/C	1862	IgG: 2.09% (1.37-2.82) § IgA: 11.07% (9.54-12.60) §	ELISA	EUROIMMUN;	IgG; IgA;	85.7%; 92.2%;	97.8%; 89.2%; I	8	Low
26	Vos (41)	Netherlands		EU/EEA	No	National	Published	31 Mar - 11 May	GP	Random	HH/C	3207	2.8% (2.1 - 3.7) §	Fluorescent bead-based multiple ximmunoassay	In-house	IgG	84.40 %	NR	10	Low
27	Popova (42)	Russian Federation	Irkutsk Region	non-EU/EEA	No	Regional	Published	28 Jun - 19 Jul	GP	Random	HH/C	2674	5.8% (5.3- 6.2)	ELISA	In house	IgG	NR	NR	8	Low
28	Popova (43)	Russian Federation	Leningrad	non-EU/EEA	No	Regional	Published	23 Jun - 26 Jun	GP	Random	HH/C	3130	20.70%	ELISA	In house	IgG	NR	NR	8	Low
29	Barchuk (44)	Russian Federation	Saint-Petersburg	non-EU/EEA	Yes	City/local	Published <sup>^</sup>	27 May - 26 Jun	GP	Random	HH/C	1038	9.0% CMIA; 10.8% ELISA §	ELISA; CMIA	CoronaPass; Abbott Laboratories	IgG; Total Abs	98.7%; 100%	100%; 99.6%	12	Low
30	Popova (45)	Russian Federation	Saint-Petersburg	non-EU/EEA	No	City/local	Published	15 Jun - 20 Jun	GP	Random	HH/C	2713	26% (24.3-27.7)	ELISA	In house	IgG	NR	NR	8	Low
31	Popova (46)	Russian Federation	Tyunmen region	non-EU/EEA	No	Regional	Published	8 - 21 Jun	GP	Random	HH/C	2758	24.5% (22.9- 26.1)	ELISA	In house	IgG	NR	NR	8	Low
32	Pollan (47)	Spain		EU/EEA	Yes	National	Published	27 Apr - 11 Ma	GP	Random	HH/C	51958	4-6% (4.3-5.0) §	CLIA; LFA	Abbott Laboratories; Zhejiang Orient Gene Biotech	IgG	89.7%	100%	12	Low
33	Public Health Agency of Sweden (48)	Sweden	Rinkeby-Kista district, Stockholm	EU/EEA	Yes	City/local	Report	22 Jun - 24 Jun	GP	Random	HH/C	538	18.7% (95% CI 14.8- 23.3)	CMIA; CLIA; LIPS; LFA;	Abbott Laboratories; DiaSorin Liaison	IgG	100	99.6	11	Low
34	Roxhed (49)	Sweden	Stockholm	EU/EEA	Yes	City/local	Published <sup>^</sup>	mid-Apr – mid-May	GP	Random	HH/C	878	12.5% (95% CI: 10.3%–14.7%)	ELISA	In house	IgM; IgG	100%	98%	7	Low
35	Richard (50)	Switzerland	Canton of Geneva	non-EU/EEA	Yes	Regional	Pre-print	6 Apr - 30 Jun	GP	Random	HH/C	8344	7.8% (6.8-8.9)	ELISA	EUROIMMUN	IgG	93%	100%	10	Low
36	Bi (51)	Switzerland	Geneva	non-EU/EEA	Yes	City/local	Pre-print	3 Apr - 30 Jun	GP	Random	HH/C	4354	6.6%	ELISA	EUROIMMUN	IgG	93%	99%	9	Low
37	Stringhini (52)	Switzerland	Geneva	non-EU/EEA	Yes	City/local	Published	6 April - 9 May	GP	Random	HH/C	2766	1stweek: 4-8% (2.4- 8.0); 2nd week: 8-5% (5.9-11.4); 3rd week: 10-9% (7.9-14.4);	ELISA	EUROIMMUN	IgG	93%	100%	9	Low

38	Ward (53)	United Kingdom	England	non-EU/EEA	No	National	Pre-print	20 Jun - 13 Jul; 31 Jul - 13 Aug; 15 Sept - 28 Sept	GP	Random	HH/C	99908; 10582 9;1593 67	4th week: 6-6% (4.3-9.4); 5th week: 10-8% (8.2-13.9) 5.96 (5.78-6.14); 4.83 (4.67-5.00); 4.38 (4.25-4.51) §	LFA	Fortress Diagnostics	IgG	84.4%	98.6%	9	Low
39	Wells (54)	United Kingdom	London; South East England	non-EU/EEA	Yes	Regional	Published	27 Apr - 2 Jun	GP	Convenience	HH/C	431	12% (9.1-15.2)	CLIA;C MIA	Abbott Laboratories; Roche Diagnostics	IgM; IgG	90%	100%	6	Medium
<b>Residual sera</b>																				
40	Herzog (55)	Belgium	Wallonia; Flanders; Brussels	EU/EEA	Yes	National	Pre-print	30 Mar - 5 Apr; 20 Apr - 26 Apr; 18 May- 25 May; 8 Jun-13 Jun; 29 Jun - 4 Jul	GP	Convenience	RS	Total: 15529; 3910;3 397;32 42;296 0;3023 ;	2.9% (2.3-3.6%); 6.0% (5.1-7.1%); 6.9% (5.9-8.0%); 5.5% (4.7-6.5%); 4.5% (3.7-5.4%)	ELISA	EUROIMMUN;	IgG	64.5 - 87.8%	99.20 %	5	Medium
41	Tsaneva-Damyanova (56)	Bulgaria	Varna city; North East Bulgaria	EU/EEA	Yes	Regional	Published	26 Mar - 20 Apr	GP	Convenience	RS	586	4.8% overall; 1.0% IgM; 1.2% IgG; 2.6% IgM and IgG	LFA	Zhejiang Orient Gene Biotech	IgM; IgG	85%	96%	4	Medium
42	Bloomfield (57)	Czech Republic	Prague	EU/EEA	Yes	City/local	Published	3 Jul - 19 Aug	GP	Convenience	RS (Children)	200	0% (0-0.5%)	ELISA; CLIA	EUROIMMUN; Roche Diagnostics	IgA; IgG	EURO IMMUN: N: IgA=9 8.6%; IgG=9 4.4% Elecsys: =99.8 %;	EURO IMMUN: N: IgA=9 2%; IgG=9 9.6% Elecsys: =99.8 %;	3	High
43	Krleza (58)	Croatia	Zagreb	EU/EEA	No	National	Published <sup>a</sup>	13 – 29 May ; 24 Oct – 23 Nov	GP	Convenience	RS (Children)	240; 308	2.9%; 8.4%	ELISA; CLIA; MN	Vircell; Roche Cobas Elecsys; In-house	NR	NR	NR	3	High
44	Capai (59)	France	Corsica	EU/EEA	Yes	Regional	Published	16 Apr - 15 Jun	GP	Convenience	RS	1973	5.5% (4.5-6.6%) §	ELISA; MN	EUROIMMUN; In-house	IgG	NR	NR	8	Low
45	Cohen (60)	France		EU/EEA	Yes	City/local	Pre-print	14 Apr - 12 May	GP	Convenience	RS (Children)	605	10.7% (8.4-13.5)	LFA	Biosynex BSS test	IgM; IgG	91.8%	99.2%	5	Medium
46	Le Vu (61)	France		EU/EEA	Yes	National	Published <sup>a</sup>	9 Mar - 15 Mar; 6 Apr - 12 Apr; 11 May - 17 May;	GP	Convenience	RS	Total: 11 021;38 34;359 5;3592 ;	March:0.41% [0.05-0.88] §; April: 4.14% [3.31-4.99] §; May: 4.93% [4.02-5.89] §	LuLISA ;MN	In-house;In-house;	IgG;NT- Abs	LuLISA N=86 %; LuLISA S=96 %	LuLISA =100% ; LuLISA =100%	13	Low
47	Bogiannidou (62)	Greece		EU/EEA	Yes	National	Published	1 Mar - 30 Apr	GP	Convenience	RS	6586	March = 0 (0-0.23%) §; April=0.23% (0-0.48%) §	ELISA; ELISA; CMIA	EUROIMMUN; Vircell; Abbott Laboratories;	IgG	84%	99.7%	8	Low
48	Gudbjartsson (63)	Iceland		EU/EEA	Yes	Regional; National	Published	18 Feb - 9 Mar	GP	Convenience	RS	470; 24115	0%; RS: 0.30% (0.2 - 0.4) §; Reykjavik: 0.4% (0.3 - 0.6) §	ELISA; ELISA; ELISA; CLIA	EUROIMMUN; EDI/Eagle;Roche Diagnostics	IgA; IgM; IgG	NR	99.80 %	9	Low
49	Public Health Agency of Sweden (64, 65)	Sweden	Jämtland; Härjedalen; Jönköping; Kalmar; Skåne; Stockholm; Uppsala; Västerbotten; Västra Götaland;Örebro	EU/EEA	No	National	Report	20 Apr to 12 Jun; 12 Oct to 23 Oct; Nov 23 to 4 Dec	GP	Convenience	RS	4500 per collection period	*see report	NR	Sci Life Lab / KTH	NR	98.9	99.4	6	Low
50	Posfay-Barbe (66)	Switzerland	Geneva	non-EU/EEA	No	City/local	Published	1-30 Apr	GP	Convenience	RS	208	ELISA: 9.1%; LFA: 12.5%	ELISA; LFA	EUROIMMUN	IgG	NR; 88.9%	NR; 94.7%	2	High

51	Dickson (67)	United Kingdom	Scotland	non-EU/EEA	Yes	National	Published	20 Apr - 15 Jun	GP	Convenience	RS	4751	4.3% (4.2-4.5)	CLIA	DiaSorin Liaison	IgG	87.5%	98.6%	3	High
52	Public Health Scotland (68)	United Kingdom	Scotland	EU/EEA	Yes	National	Report	20 Apr - 17 May; 18 May - 14 Jun; 15 Jun - 12 Jul; 13 Jul - 9 Aug;	GP	Convenience	RS	2039; 2172; 2709; 2882	4.1% (2.4%, 5.7%); 3.4% (1.8%, 5.0%); 3.9% (2.3%, 5.4%); 3.7% (2.2%, 5.2%)	CMIA	DiaSorin Liaison	NR	NR	NR	4	Mediun
<b>Blood donors</b>																				
53	Musa (69)	Bosnia and Herzegovina	Federation of Bosnia and Herzegovina	non-EU/EEA	Yes	Regional	Unpublished	1 Nov - 7 Dec	BD	Convenience	BD	1015	19.1% (16.7-21.5)	CMIA	Abbott Laboratories	Total Abs;	NR	NR	N/A	N/A
54	Pedersen (70)	Denmark	Danish Capital Region; Zealand Region; Central Denmark Region	EU/EEA	Yes	National	Published	2 Jun - 19 Jun	BD	Convenience	BD	Total: 2311; 17-69yrs: 1110; >70yrs: 1201	17-69yrs: 2.5 (1.3-3.8) <sup>§</sup> ; >70yrs: 1.4 (0.3-2.5) <sup>§</sup>	ELISA	Beijing Wantai Biological Pharmacy Enterprise;	Total Abs;	96.7% (92.4-98.6)	99.5% (98.7-99.8)	7	Low
55	Erikstrup (71)	Denmark		EU/EEA	Yes	National	Published <sup>^</sup>	6 Apr - 3 May	BD	Random	BD	20 640	2.0% (95% CI, 1.8-2.2%); 1.9% (95% CI, 1.8-2.3) <sup>§</sup>	LFA	Livzon Diagnostics Inc	IgM; IgG	82.6%	99.5%	7	Low
56	Bloddonor (72)	Denmark		EU/EEA	No	National	Report	5 Oct - 31 Dec	BD	Convenience	BD	71883	*see report	LFA	Livzon	NR	NR	NR	4	Mediun
57	Gallian (73)	France	Haut-Rhin departmental area [DA]; Seine-Saint-Denis DA; Bouches-du-Rhône DA; Oise DA;	EU/EEA	No	National	Published	23 Mar - 5 Apr	BD	Convenience	BD	998	2.71%	MN	In-house	NT-Abs	NR	100%	6	Mediun
58	Grzelak (74)	France	Lille	EU/EEA	No	City/local	Published	20-24 Mar	BD	Convenience	BD	200	3%	ELISA; LIPS; MN	In-house; In-house; In-house;	IgA; IgG; IgM	NR	NR	3	High
59	Fischer (75)	Germany	Hesse; Lower Saxony; North Rhine-Westphalia	EU/EEA	Yes	National	Published	Mar - Jun	BD	Convenience	BD	3186	0.91% (0.58-1.24)	ELISA; CLIA; CMIA	EUROIMMUN; Diasorin Liaison; Abbott Laboratories	IgG	65%	99-100%	4	Mediun
60	Runkel (76)	Germany	Southwest	EU/EEA	Yes	Regional	Published	Mar - Jun	BD	Convenience	BD	3754	0.40%	ELISA; CLIA; CMIA	Epitope Diagnostics; Immundiagnostik AG; Abbott Architect; Roche Diagnostics	IgG	NR	Abbott =99.6%; DK5000=99.1%; EDI=96.4%	7	Low
61	Percivalle (77)	Italy	Lombardy	EU/EEA	Yes	City/local	Published	18 Mar - 6 Apr	BD	Convenience	BD	390	23%	MN	In-house	NT-Abs	95%	100%	6	Mediun
62	Fiore (78)	Italy	South East	EU/EEA	No	Regional	Published	1-31 May	BD	Convenience	BD	904	0.99%	CLIA	Snibe Co., Ltd.	IgM; IgG	IgM=78.65%; IgG=91.21%	IgM=97.5%; IgG=97.3%	4	Mediun
63	Valenti (79)	Italy	Milan	EU/EEA	Yes	City/local	Pre-print	24 Feb - 8 Apr	BD	Convenience	BD	789	February/March: 2.7% (95% 0.3-6.0%); March/April: 5.2% (2.4-9.0) <sup>§</sup>	LFA	Prima Lab	IgM; IgG	IgM=68%; IgG=100%	99.20%	10	Low
64	Slot (80)	Netherlands		EU/EEA	Yes	National	Published	1-15 Apr	BD	Convenience	BD	7361	3.40%	ELISA	Beijing Wantai Biological Pharmacy Enterprise;	IgA; IgM; IgG	100%	99.1-100%	5	Mediun
65	Lundkvist (81)	Sweden	Djurgårdsstaden and Tensta (Stockholm)	EU/EEA	Yes	City/local	Published	17-18 Jun	BD	Random	BD	213	Djurgårdsstaden: 4.1% (0.6-7.6%); Tensta: 30.0% (20.3-39.7%)	LFA	Zhejiang Orient Gene Biotech	IgM; IgG	IgM=100%; IgG=100%	IgM=100%; IgG=95.5%	6	Mediun
66	Public Health England (82-87)	United Kingdom	England	non-EU/EEA	Yes	National	Report	23 Mar - 3 Dec	BD	Convenience	BD	1000 sample s/week /region	*see report	ELISA	EUROIMMUN	IgG	79%	99%	4	Mediun
67	Thompson (88)	United Kingdom	Scotland	non-EU/EEA	Yes	National	Published	17 Mar - 18 May	BD	Convenience	BD	3500	3.17%	CLIA; CMIA	Abbott Laboratories; Roche Diagnostics	IgM; IgG	94.1%	100%	8	Low

68	Public Health Scotland (68)	United Kingdom	Scotland	EU/EEA	Yes	National	Report	29 Jun - 9 Aug	BD	Convenience	BD	3220	3.1% (2.5%, 3.8%)	NR	NR	NR	NR	NR	5	Medium
<b>Patients seeking healthcare (non-COVID-19)</b>																				
69	Fogel (89)	France	Paris	EU/EEA	No	City/local	Published	1 Jun - 31 Aug	GP	Convenience	PSC	249	2.8%	CMIA	Abbott Laboratories	IgG	NR	NR	2	High
70	Choi (90)	Germany	Berlin	EU/EEA	No	City/local	Published	19 Mar - 19 May	GP	Convenience	PSC	223	7.20%	ELISA; IFT;PR NT	EUROIMMUN; In house;In house	IgA; IgG	NR	NR	1	High
71	Rauber (91)	Germany	Heidelberg	EU/EEA	No	City/local	Published	5 May - 8 Jun	GP	Convenience	PSC	219	3.2%	ELISA	EUROIMMUN	IgG	94.6%	99.8%	1	High
72	Zambelli (92)	Italy	Bergamo	EU/EEA	No	City/local	Published	1-30 Apr	GP	Convenience	PSC	560	31%	LFA	Moers	IgM; IgG	NR	NR	2	High
73	Medas (93)	Italy	Cagliari	EU/EEA	No	City/local	Published	31 Mar - 30 Jun	GP	Convenience	PSC	86	5.8%	CLIA	Snibe Co., Ltd	IgM; IgG	NR	NR	1	High
74	Capasso (94)	Italy	Campania Region	EU/EEA	No	Regional	Published	11 May - 15 Jun	GP	Convenience	PSC	310	2.90%	LFA	Shanghai Kehua LFAI	IgM; IgG	66%	96.60 %	4	Medium
75	Cento (95)	Italy	Milan	EU/EEA	No	City/local	Published	11 May - 5 Jul	GP	Convenience	PSC	2753	5.1% (4.3%-6.0%)	CLIA;C LIA	Abbott Laboratories	IgG	84.2-100%	99.6-100%	4	Medium
76	Berte (96)	Italy; Germany	Milan and Cagliari; Erlangen	EU/EEA	No	Regional	Published	Apr - Jun	GP	Convenience	PSC	354;M ilan, Italy; 129; Cagliari, Italy; 48; Erlangen, Germany; 177	2.3% (0.8- 3.8)	ELISA	Abbott Laboratories DiaSorin Liaison In house	IgA; IgG	IgA=7 1.4%; IgG=9 7.64%	IgA=9 9.8%; IgG=9 5.2%	4	Medium
77	Vena (97)	Italy	Liguria; Lombardia	EU/EEA	No	Regional	Published	Mar - Apr	GP	Convenience	PSC	3609	11% (10.0-12.1)	CLIA:L FA;LFA	MaglumiTM; Realy tech; Biosynex BSS	IgM; IgG	IgM=7 8.6-100%; IgG=9 0.6-100%	IgM=8 8.7-97.5%; IgG=9 100%	4	Medium
78	Cabezón-Gutiérrez (98)	Spain	Madrid	EU/EEA	No	City/local	Published	29 May - 19 Jun	GP	Convenience	PSC	229	31.40%	LFA	Hangzhou Testsea Biotechnology	IgM; IgG	IgM=8 8%; IgG=9 6%	IgM=1 00%; IgG=1 00%	4	Medium
79	Prados (99)	Spain		EU/EEA	No	National	Published	27 Apr - 26 Jun	GP	Convenience	PSC	6140	0.70%	ELISA	EDI Epitope Diagnostics	IgM; IgG	NR	NR	3	High
80	Clarke (100)	United Kingdom	London	non-EU/EEA	No	City/local	Published	27 Apr - 7 May	GP	Convenience	PSC	356	36.2%	CMIA	Abbott Laboratories	IgG	NR	NR	3	High
81	Prendecki (101)	United Kingdom	London	non-EU/EEA	No	City/local	Published	1-30 Jun	GP	Convenience	PSC	855	8.1% (95% CI, 6.4 to 10.1);10.4% (8.5 - 12.6%)	CMIA; LFA	Abbott Laboratories; Fortress Diagnostics	IgG	90.6%; 96.5%	NR	4	Medium
<b>Pregnant or parturient women</b>																				
82	Egerup (102)	Denmark	Copenhagen	EU/EEA	No	City/local	Published	4 Apr - 3 Jul	GP	Convenience	Pregnant or parturient women; Partners; Newborns	Total: 3707; Pregnant or parturient women: 1313; Partners: 1188; Newborns: 1206	Pregnant or parturient women: 2.6% (1.7-4.0) <sup>§</sup> ; Partners: 3.5% (2.3 - 5.1) <sup>§</sup> Newborns: 1.4% <sup>§</sup>	CLIA	Shenzhen Yhlo Biotech	IgM; IgG	IgM=4 2%; IgG=9 4%	IgM=9 9.7%; IgG=9 9.3%	7	Low
83	Mattern (103)	France	Paris	EU/EEA	Yes	City/local	Published	4-31 May	GP	Convenience	Pregnant or parturient women	249	8%	CMIA	Abbott Laboratories	IgG	NR	NR	3	High
84	Tsatsaris (104)	France	Paris	EU/EEA	Yes	City/local	Published	29 Apr - 26 Jun	GP	Convenience	Pregnant or	529	4.7% (3.0-6.7%)	CMIA	Abbott Laboratories	IgG	92.7 - 97.3 %	>99%	3	High

85	Cosma (105)	Italy	Turin4/6/2020	EU/EEA	No	City/local	Published	16 Apr - 4 Jun	GP	Convenience	parturient women Pregnant or parturient women	138	5.80%	CLIA:LFA, LFA	DiaSorin Liaison; Boditech; AFIAS	IgM; IgG	NR	NR	2	High
86	Crovetto (106)	Spain	Madrid	EU/EEA	Yes	City/local	Pre-print	14 Apr - 5 May	GP	Convenience	Pregnant or parturient women	874	14.3%	CLIA	Vircell	IgA; IgM; IgG	IgM/IgA=89%; IgG=70%	IgM/IgA=99%; IgG=89%	2	High
87	Villalain(107)	Spain	Madrid	EU/EEA	No	City/local	Published	28 Feb - 10 May	GP	Convenience	Pregnant or parturient women	769	11.2%	ELISA	In house	IgG	NR	NR	2	High
88	Lumley (108)	United Kingdom	Oxford	non-EU/EEA	Yes	City/local	Published	14 Apr - 15 Jun	GP	Convenience	Pregnant or parturient women	1000	5.3% (4.0-6.9)	CLIA	In house	IgG	99.1%	99%	4	Medium
<b>Other/Multiple populations</b>																				
89	Kratka (109)	Czech Republic	Stratonic; Pisek	EU/EEA	No	Regional	Published	4-15 May	Other	NR	Employee s	2011	Stratonic 2.9%; Pisek 1.9%	ELISA	EUROIMMUN;	IgA; IgG	IgA=98.6%; IgG=94.4%	IgA=92%; IgG=99.6%	5	Medium
90	Jerkovic (110)	Croatia	Split-Dalmatia; Sibenik-Knin County	EU/EEA	No	Regional	Published	23-28 Apr	Other	Convenience	Employee s - voluntary	1494	1.27% (0.8-2.0%)	LFA	AMP Diagnostics	IgM; IgG	IgM:95.7%; IgG:91.8%	IgM=97.3%; IgG=96.4%	6	Medium
91	Vince (111)	Croatia		EU/EEA	No	National	Pre-print	20 May - 31 Jul	Other	Convenience	Football players	305	20%	ELISA	EUROIMMUN;	IgA; IgG	NR	NR	2	High
92	Anna (112)	France	Ile-de-France; Paris; Saint-Cloud; Orsay	EU/EEA	No	City/local	Published	28 Apr - 31 Jul	Other	Convenience	Employee s - voluntary	1847	11.6%	LuLISA ;MN	In-house;In-house;	IgG	NR	98%	6	Medium
93	Fontanet (113)	France	Oise	EU/EEA	No	City/local	Published^	30 Mar – 4Apr; 28 Mar – 30 Apr	Other	Convenience	HH/C samples; High school; Primary school	664 1340	25%; 10%	ELISA; S-flow; LIPS;	In-house;In-house; In-house	IgG	99.4%	>99%	8	Low
94	Roederer (114)	France	Paris	EU/EEA	No	City/local	Published^	23 Jun - 2 Jul	Other	Convenience	Persons experiencing homelessness	818	52%	LuLISA * ;MN	In-house	IgG	NR	97-100%	9	Low
95	Krahling (115)	Germany	Frankfurt am Main	EU/EEA	No	City/local	Pre-print	6-14 Apr	Other	Convenience	Employee s	998	2.90%	ELISA	In-house;	IgG	87.2-100%	99.2%	4	Medium
96	Mack (116)	Germany		EU/EEA	No	National	Published	May; June	Other	Convenience	Profession al football teams	1184	May: 1.99% (1.33–2.97); June: 2.09% (1.37–3.17);	ELISA; CLIA	EUROIMMUN; Roche Diagnostics	IgG	NR	NR	3	High
97	Ceban (117)	Republic of Moldova		non-EU/EEA	Yes	National	Unpublished	17 Nov 2020 – 15 Jan 2021	Other	Random	Hospital visitors	5656	48.4%	ELISA	Beijing Wantai Biological Pharmacy Enterprise	Total Ab	NR	NR	N/A	N/A
98	Gujski (118)	Poland	Mazowieckie Province	EU/EEA	No	Regional	Published	22 Jun - 8 Jul	Other	Random	Employee s	5082	4.30%	ELISA	Vircell	IgA; IgM; IgG	65% - 97%	82% - 96%	3	High
99	Perez-Garca (119)	Spain	Madrid	EU/EEA	No	City/local	Published	5 Mar - 30 May	Other	Convenience	Employee s	2963	22.40%	LFA	AllTest Biotech	IgM; IgG	88%	100%	4	Medium
100	Ulyte (120)	Switzerland	Canton of Zurich	non-EU/EEA	No	Regional	Published^	16 Jun - 9 Jul; 26 Oct - 19 Nov	Other	Random	School children	5155; 2603; 2552	7.8% (6.2% to 9.5%); 2.4% (1.4-3.5); 4.5% (3.2-6.0);	ELISA	In-house	IgA; IgM; IgG	93.3-94.3%	99-99.6%	6	Medium
101	Roarty (121)	United Kingdom	Belfast; Cardiff; Glasgow; London; Manchester	non-EU/EEA	No	National	Published	26 Jun - 15 Aug	Other	Convenience	Children of employee s	849	7.66% (6.05–9.64)	CLIA; CLIA	Elecsys Roche; DiaSorin Liaison	IgG	84%; 64%	100%; 98%	4	Medium
102	Waterfield (122)	United Kingdom	Belfast; London;Glasgow; Manchester; Cardiff	non-EU/EEA	No	National	Published	16 Apr - 3 Jul	Other	Convenience	Children of employee s	992	6.9% (5.4 - 8.6)	CLIA; CMIA	Abbott Laboratories; Roche Diagnostics; DiaSorin Liaison	IgG	64-94%	98-100%	4	Medium

103	Armann (123)	Germany	Eastern Saxony	EU/EEA	No	Regional	Pre-print	25 May - 30 Jun; 15 Sept-13 Oct	Other	Convenience	Teachers and students	1779	0.6%; 0.6%	ELISA; CLIA; CMIA	EUROIMMUN; Diasorin Liaison; Abbott Laboratories	IgG	97.6%	99.3%	7	Low	
104	Reisinger (124)	Germany	Rostock	EU/EEA	No	City/local	Published	22-29 Apr	Other	Convenience	Children and mothers	401	2.90%	ELISA	EUROIMMUN	IgA; IgG	NR	NR	3	High	
105	Tsitsilonis (125)	Greece	Athens	EU/EEA	No	City/local	Published	15 Jun - 15 Jul	Other	Convenience	Employees and students	2500	0.93% (0.27, 2.09) §	CLIA	Roche Diagnostics	Total Abs	100%	99.81%	5	Medium	
106	Lastucci (126)	Italy	Prato	EU/EEA	No	Regional	Published	1 May - 31 May	Multiple	Random	Work-from-home; Support service	1828	1% (0.3-2.0); 1.4% (0.7-2.2)	LFA	Hangzhou Laihe Biotech	IgM; IgG	NR	NR	2	High	
107	Soriano (127)	Spain	Madrid	EU/EEA	Yes	City/local	Published	27 Apr - 17 May	Multiple	Convenience	University staff, family members, community	674	13.8%	LFA	PCL Inc	IgM; IgG	NR	NR	3	High	
108	Montenegro (128)	Spain	Barcelona	EU/EEA	No	City/local	Published	21-24 Apr; 29 Apr - 6 May	Multiple	Random	HH/C; PSC	311; 634	5.47% (3.44-8.58); 38.49% (34.78%-42.33%)	LFA; LFA; LFA	Livzon; Lysine; Sure Screen	IgM; IgG	Livzon =91.2%; Lysine=98.6%; SureScreen=91%	NR	NR	9	Low
109	Emmenegger (129)	Switzerland	Canton of Zurich	non-EU/EEA	Yes	Regional	Pre-print	Mar - Jul	Multiple	Convenience	BD; PSC;	Total: 33932; Blood donor cohort: 9,102; Patient cohort: 24,830 ;	BDS cohort <sup>§</sup> : April: 1.2%; May: 1.6%; July: 0.7%; Patient cohort <sup>§</sup> : March: 0.3%; April: 1.4%; May - July: 0.9%;	Tripartite Automated Blood Immunoassay (TRABI)	In house	IgG	100%	100%	5	Medium	
110	Dopico (130)	Sweden	Stockholm	EU/EEA	No	City/local	Published <sup>^</sup>	4 Mar - 11 Dec	Multiple	Convenience	BD; Pregnant women	2600; 2500	14.8% (12.2-18.0)	ELISA	In house	IgG	Spike 3SD:100% (95% CI [97.5-100.0]); ; Spike 6SD:100% (95% CI [97.5-100.0]); ; RBD 3SD:100% (95% CI [98.4-100.0]); ; RBD 6SD:99.9% (95% CI [99.6-100.0]); ; RBD 3SD:99.0% (95% CI [98.4-99.4]); ; RBD 6SD:99.9% (95% CI [99.6-100.0]); ; RBD 3SD:99.0% (95% CI [94.2-99.3]);	5	Medium		
111	Davis (131)	United Kingdom	London	non-EU/EEA	No	City/local	Pre-print	Jun	Other	Convenience	University staff	1882	6.6% (5.6-7.8)	LFA	SureScreen	IgM; IgG	89%	100%	4	Medium	

and  
students

NR = Not reported; GP = General population; BD= Blood donors; RS = Residual sera; PSC = Patients seeking care (non-COVID-19); Sn: Sensitivity; Sp: Specificity; \* LuLISA: Luciferase Linked Immunosorbent Assay; ^ Initially reported to WHO EURO and ECDC in 2020 or in pre-print form and since published;