

**Table 1** SARS-CoV-2 transmission in children

Study	Participants n	Median Age	Positive SARS-CoV-2 n (%)	SARS-CoV-2 confirmed adult household contact n (%)	Symptomatic adult household contact n (%)	Sibling n (%)	Community / Unknown n (%)	International Travel (Imported) n (%)
Garazzino et al. <sup>38</sup> (Italy)	168	2.3	168 (100)	113 (67)	-	-	-	0 (0)
Zachariah et al. <sup>37</sup> (New York)	50	9	50 (100)	26 (52)	9 (18)	-	-	-
Götzinger et al. <sup>43</sup> (Europe)	582	5	582 (100)	324 (56)	-	24 (4)	234 (40)	-
Han et al. <sup>4</sup> (South Korea)	91	11	91 (100)	57 (63)*	-	-	15 (16) / 4 (4)	15 (17)
Cura Yayla et al. <sup>40</sup> (Turkey)	220	10	220 (100)	217 (99)°	-	-	/ 3 (1)	-
Lu et al. <sup>71</sup> (Wuhan)	171	6.7	171 (100)	131 (77)	23 (14)		2 (1) / 15 (9)	
Yonker et al. <sup>72</sup> (MA, USA)	49	12.7	49 (100)	33 (67)	-	9 (18)	9 (18) / -	-
Antunez-Montes et al. <sup>60</sup> (Latin America)	409	3	409 (100)	165 (40)	-	5 (1)	62 (15) / 177 (43)	-

\*all household members included, author did not specify whether adult or sibling was the source

°both household and close contacts included in this data point

**Table 2** SARS-CoV-2 secondary transmission in the school setting

Study	School Types	SARS-CoV-2 Index cases (age)	Contacts Monitored	Contacts Tested n (%)	Secondary Infections	SAR <sup>a</sup>
Yoon et al. <sup>27</sup> (South Korea)	5 kindergarten	5 students	-	670	0	0
	15 elementary	19 students	-	2453	1	0.04%
	8 middle schools	8 students	-	1962	0	0
	12 high schools	13 students	-	4747	0	0
Yung et al. <sup>73</sup> (Singapore)	Preschool A	1 student (5)	34 students symptomatic	34	0	0
	Preschool B	1 adult staff	105 (8 symptomatic)	77 (73)	16 staff 0 students	0
	Secondary	1 student (12)	8 students symptomatic	8	0	0
Danis et al. <sup>74</sup> (French Alps)	3 schools	1 student (9) (visited all 3 while symptomatic)	86	55 (64)	0	0
Heavey et al. <sup>28</sup> (Rep. of Ireland)	1 primary 2 secondary °	3 children 3 adults staff	1025	- *	1 (adult to adult)	0
Macartney et al. <sup>29</sup> (Australia)	10 ECEC± 15 schools	12 students 15 adults	1448	633 (44)	8 staff 10 students	1.2%
Ehrhardt et al. <sup>31</sup> (Germany)	Childcare facilities primary secondary vocational	137 students  (only 6 led to secondary infection)	>2300	>2300	Students: 11 (an additional 4 students were infected from 2 staff)	-
Stein-Zamir et al. <sup>32</sup> (Israel)	1 high school (grades 7 – 12)	2 students	1316	Students: 1161 (99) Staff: 151 (99)	Students: 153 Staff: 25	Students: 13.2% Staff: 16.6%

▪ SAR: secondary attack rate

◦ Author did not specify the type of schools at which the adult staff members worked. Also, no clarification was made about whether more than one of the six cases was present in a single school

\*symptomatic individuals were referred for testing, but exact numbers are unknown

± ECEC: early childhood education and care centers. Account for daycare, preschool and after-school care programs

**Table 3** Demography, clinical characteristics and outcomes of SARS-CoV-2 in children

Study	Patients n	Median Age	Infants < 1 n (%)	Male n (%)	Positive SARS- CoV-2 RT-PCR n (%)	Underlyin g Medical Condition s n (%)	No Symptom s n (%)	Fever n (%)	Respirato ry (Cough / SOB) n (%)	Pneumoni a n (%)	GI (Vomiting / Diarrhea) n (%)	Hospitaliz ed n (%)	ICU care/ Mechanic al Ventilatio n n (%)	Mortality n (%)
Zachariah et al. <sup>37</sup> (New York)	50	11	14 (34)	27 (54)	50 (100)	33 (67)	0 (0)	40 (80)	23 (46) / 17 (34)	-	7 (14)	50 (100)	- / 9 (18)	1 (2)
Götzinger et al. <sup>43</sup> (Europe)	582	5	230 (40) (<2)	311 (53)	582 (100)	145 (25)	92 (16)	379 (65)	313 (54) / -	93/198 (47)	128 (22)	363 (62)	48 (8) / 25 (4)	4 (1)
Garazzino et al. <sup>38</sup> (Italy)	168	2.3	66 (39)	94 (56)	168 (100)	33 (20)	4 (3)	138 (32)	82 (49) / 16 (10) /	75 (45)	9 (5) / 22 (13)	110 (65)	2 (1) / 2 (1)	0 (0)
Swann et al. <sup>36</sup> (U.K.)	651	4.6	225 (35)	367 (56)	651 (100)	276 (42)	0 (0)	431/617(7 0)	233/599 (39) / 173/570 (30)	-	179/564 (32)	651 (100)	116/632 (18) / 58/620 (9)	6 /627 (1)
Dong et al. <sup>5</sup> (China)	2143	7	379 (18)	1213 (57)	731 (34)	-	94 (4)	-	-	-	-	-	-	-
Han et al. <sup>4</sup> (South Korea)	91	11	6 (7)	53 (58)	91 (100)	6 (7)	20 (22)	62 (68)	54 (60)	-	16 (18)	91 (100)*	0 (0) / 0 (0)	0 (0)
Shekerde mian et al. <sup>42</sup> (U.S./ Canada)	48	13	8 (17)	25 (52)	48 (100)	40 (83)	1 (2)	-	35 (73)	-	1 (2)	48 (100)	48 (100) / 18 (38)	2 (4)
Cura Yayla et al. <sup>40</sup> (Turkey)	220	10	-	105 (48)	220 (100)°	22 (10)	55 (26)	89 (41)	79 (36) / 9 (4) /	74 (34)	9 (4) / 17 (8)	220 (100)	3 (1)	2 (1)

Lu et al. <sup>71</sup> (Wuhan)	171	6.7	31 (18)	104 (61)	171 (100)	-	27 (16)	71 (42)	83 (49) / 49 (29)	111 (65)	11 (6) / 15 (9)	-	3 (2) / 3 (2)	1 (1)
Parri et al. <sup>75</sup> (Italy)	100	3.3	40 (40)	57 (57)	100 (100)	27 (27)	21 (21)	28/54 (52)	44 (44) / 11 (11)	20 (20)	10 (10)	67 (67)	- / 1 (1)	0 (0)
Yonker et al. <sup>72</sup> (MA, USA)	49	12.7	2 (4)	23 (47)	49 (100)	-	0 (0)	25 (51)	23 (47) / 8 (16)	-	3 (6) / 3 (6)	-	-	-
Chiara-Chilet et al. <sup>39</sup> (Perú)	91	6	28 (31) (<2)	58 (64)	46 (51) (45 (49) via Ab testing)	49 (54)	0 (0)	18 (40)	20 (18) / 13 (14)	26 (37)▪	11 (13) / -	91 (100)	22 (24) / -	9 (10)
Antunez-Montes et al. <sup>60</sup> (Latin America)	409	3	36 (9)	222 (54)	409 (100)	83 (20)	49 (12)	238 (58)	244 (60)	170 (42)	101 (25)	409 (100)	32 (10) / 29 (7)	17 (4)

**RT-PCR:** reverse transcription polymerase chain reaction

**SOB:** shortness of breath

**Pna:** pneumonia

GI symptoms include abdominal pain, vomiting and diarrhea

\*all children in study were placed in isolation, all but 2 of which were isolated in a hospital setting regardless of symptom status. Two children were placed in a non-hospital isolation unit (Han et al., 2020)

°9 (4) of total were confirmed via serum antibody testing

▪ abnormal chest radiography

**Table 4** Demography, clinical characteristics and outcomes of Multisystem Inflammatory Syndrome in Children (MIS-C)

Study	Patient s n	Media n Age	Male n (%)	Race/ Ethnicity * n (%)	Positive SARS- CoV-2 RT-PCR n (%)	Positive SARS- CoV-2 Ab n (%)	Underlying Medical Conditions n (%)	Primary (3) Symptoms n (%)	Cardiac Symptoms n (%)	Features of KD Present n (%)	Diagnosis of Shock n (%)	ICU care/ Mechanical Ventilation n (%)	Mortality n (%)
Riollano - Cruz et al. <sup>47</sup> (New York)	15	12	11 (73)	10 (66) Hispanic/ Latino	9 (60)	15 (100)	4 (27%)	Fever: 15 (100) GI: 13 (87) Resp: 3 (20)	13 (87)	7 (47%)	13 (87)	14 (93) / 3 (20)	1 (7)
Riphagen et al. <sup>55</sup> (U.K.)	8	8	5 (63)	6 (75) Afro - Caribbea n	2 (25)	-	2 (25)	Fever: 8 (100) GI: 8 (100) Conjunctivitis: 5 (63)	7 (88)	8 (100)	8 (100)	8 (100) / 7 (88)	1 (13%)
Whittaker et al. <sup>52</sup> (England)	58	9	38 (66)	22(38) black / 18 (31) Asian	15 (26)	40/46 (87)	7 (12)	Fever: 58 (100) GI: 31 (58) Rash: 30 (52)	8 (14)	13 (22)	29 (50)	23 (40) / 25 (43)	1 (2)
Feldstein et al. <sup>44</sup> (U.S.)	186	8.3	115 (62)	29 (40) Hispanic / Latino	131 (70) (+ Ab)	-	51 (27)	Fever: 186 (100) GI: 171 (92) Rash: 110 (59)	149 (80)	74 (40)	90 (48)	148 (80) / 37 (20)	4 (2)
Verdoni et al. <sup>48</sup> (Italy)	10	7.5	7 (70)	8 (80) white	2 (20)	8 (80)	-	Diarrhea: 6 (60) Pna: 5 (50)	6 (60)	10 (100)	5 (50)	-	0 (0)
Toubiana et al. <sup>50</sup> (France)	21	7.9	9 (43)	12 (57) African ancestry	8 (38)	19 (90)	0 (0)	GI: 21 (100) Conjunctivitis: 17 (81) Rash: 16 (76)	16 (76)	21 (100)	17 (81)	17 (81) / 11 (52)	0 (0)
Grimaud et al. <sup>45</sup> (France)	20	10	10 (50)	-	10 (50)	15 (75)	-	Fever: 20 (100) GI: 20 (100) Rash: (100)	20 (100)	20 (100)	20 (100)	20 (100) / 8 (40)	0 (0)
Sadiq et al. <sup>76</sup> (Pakistan)	8	9.5	7 (88)	-	3 (38)	8 (100)	0 (0)	Fever: 8 (100) Conjunctivitis: 7 (88) GI: 6 (75)	5 (63)	6 (75)	2 (25)	2 (25) / 1 (13)	1 (13)
Godfred- Cato et al. <sup>57</sup> (U.S.)	570	8	316 (55)	187 (41) Hispanic / 153 (33)	302 (53)	418 (73)	194 (34)	GI: 518 (91) Resp: 359 (63) Conjunctivitis: 276 (48)	493 (87)	48 (5)	202 (35)	364 (64) / 69 (13)	10 (2)

				black, non- Hispanic									
Pereira et al. <sup>61</sup> (Brazil)	6	8	5 (83)	-	4 (67)	-	5 (83)	Fever: 6 (100) Resp: 5 (83) GI: 4 (67)	6 (100)	3 (50)	5 (83)	5 (83) / 5 (83)	4 (67)
Jain et al. <sup>77</sup> (India)	23	7.2	11 (48)	-	9 (39)	7 (30)	-	Fever: 23 (100) GI: 15 (70) Rash: 14 (65)	15 (65)	-	15 (65)	- / 9 (40)	1 (4)
Torres et al. <sup>58</sup> (Chile)	27	6	14 (52)	(85) of parents are Chilean	14 (52)	10 (37)	7 (26)	Fever: 27 (100) GI: 17 (63) Rash: 14 (52)	12 (46)	18 (67)	12 (44)	16 (59) / 12 (44)	0 (0)
Swann et al. <sup>36</sup> (U.K.)	52	10.7	31 (60)	330 (51) white	28/50 (56)	22/50 (44)	15 (29)	Fever Rash Conjunctivitis	21/37 (57)	-	25 (48)	38 (73) / 14 (27)	0 (0)
Mamishi et al. <sup>49</sup> (Iran)	45	7	24 (53)	-	10 (22)	35 (78)	6 (13)	Fever: (91) GI: (58) Rash: (53)	25 (56)	31 (69)	5 (11)	-	5 (11)
Yonker et al. <sup>72</sup> (MA, USA)	18	7.7	14 (78)	9 (50) white	18(100)	-	2 (11)	Fever: 18 (100) Rash: 5 (28) Vomiting: 5 (28)	-	-	-	-	-
Antunez- Montes et al. <sup>60</sup> (Latin America)	95	7	52 (55)	-	23 (24)	72/88 (82)	11 (12)	URI: 47 (50) GI: 43 (45) LRI: 23 (24)	11 (12)	-	14 (15)	20 (21) / 9 (10)	2 (2)

\*largest racial or ethnic group(s) reported in each study. Language used is that of the authors. Swann et al. reported that children of black ethnicity were over represented in their study population compared to the general population (10% vs. 4.7%). No other authors offered context for racial/ethnic data. It is also assumed that neither race nor ethnicity are mutually exclusive.

**RT-PCR:** reverse transcription polymerase chain reaction

**Ab:** antibodies

**GI:** gastrointestinal complaints ex. diarrhea, vomiting, abdominal pain

**Resp:** respiratory complaints ex. cough, shortness of breath

**Pna:** pneumonia

**Cardiac symptoms** ex. abnormal EKG, elevated serum troponin and/or BNP, coronary artery abnormalities, arrhythmias, ventricular dysfunction, myocarditis

**KD:** Kawasaki Disease

**Features of Kawasaki Disease:** includes symptoms such as erythema and cracking of lips, strawberry tongue, rash, conjunctivitis, swollen hands and feet, myocarditis, lymphadenopathy (McCrindle et al., 2020)

**Features of shock:** hypotension, tachycardia

**URI:** upper respiratory tract infection ex. rhinitis, pharyngitis, tonsillitis, otitis

**LRI:** lower respiratory tract infection ex. pneumonia, bronchitis



**Table 5** Demography and comorbidities of SARS-CoV-2 positive children

Study	Participants  n	Median Age	Male  n (%)	Comorbidities  n (%)	Obesity +  n (%)	Chronic Respiratory Illness  n (%)	Asthma  n (%)	Immuno- compromised / suppressed**  n (%)
Zachariah et al. <sup>37</sup> (New York)	50	11	27 (54)	33 (67)	11 (22)	2 (4)	6 (12)	8 (16)
Shekerdemian et al. <sup>42</sup> (U.S./Canada)	48	13	25 (52)	40 (83)	7 (15)	2 (4)	-	11 (23)
Chao et al. <sup>63</sup> (New York)	46	13	31 (67)	-	14 (30)	-	11 (24)	3 (7)
Godfred-Cato et al. <sup>57</sup> (U.S.)	570	8	316 (55)	-	146 (26)	48 (8)	-	-
Kim et al. <sup>78</sup> (U.S.)	576	8	292 (51)	94/222 (42)	42/111 (38)	40/222 (18)	30/222 (14)	12/222 (5)
Leon-Abarco <sup>64</sup> (Mexico)	21,161	-	-	-	655 (3)	-	806 (4)	808 (4)
Ciprandi et al. <sup>68</sup> (Italy)	52	6.2	24 (46)	-	-	-	1 (2)	-
Garazzino et al. <sup>38</sup> (Italy)	168	2.3	94 (56)	33 (20)	-	7 (4)	-	3 (2) / 4 (2)
Götzinger et al. <sup>43</sup> (Europe)	582	5	311 (53)	145 (25)	-	29 (5)*	16 (3)	3 (1) / 29 (5)
Han et al. <sup>4</sup> (South Korea)	91	11	53 (58)	6 (7)	-	0 (0)	3 (3)	0 (0)
Swann et al. <sup>36</sup>								

(U.K.)	651	4.6	367 (56)	276 (42)	-	-	45/615 (7)	48/615 (8) / 53/599 (9)
Yonker et al. <sup>72</sup> (MA, USA)	49	12.7	23 (47)	-	13 (27)	-	6 (12)	0 (0)
Antunez-Montes et al. <sup>60</sup> (Latin America)	409	3	222 (54)	83 (20)	-	-	-	18 (4) / 12 (3)

+Obesity is defined as BMI (or sex and weight for length percentiles for patients younger than 2) at or above the 95<sup>th</sup> percentile for age

\*Study explicitly states or demonstrates the inclusion of asthma in data point for chronic respiratory illness

\*\*Solid organ transplant, hematologic malignancies, solid tumors, hematopoietic stem cell transplant recipient, aplastic anemia