Characteristics of included studies

| Study ID | Lead author | Date published | Country | Sample size | Study setting | Median (IQR) | Female % | Current smoker % | Current/former smokers % | Never smokers % | Never/unknown smokers % | Not stated % | Missing % |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | Guan, Ni | 2020-02-28 | China | 1,099 | Hospital | 47 (35-58) | 41.90 | 12.47 | - | 84.35 | - | - | 1.27 |
| 2 | Guan, Liang | 2020-03-26 | China | 1,590 | Hospital | 49 (33-64) | 42.70 | - | 6.98 | 93.02 | - | - | - |
| 3 | Lian | 2020-03-25 | China | 788 | Hospital | NA | 38.50 | 6.85 | - | - | - | 93.15 | - |
| 4 | Jin | 2020-03-24 | China | 651 | Hospital | 46 (32-60) | 49.20 | 6.30 | - | - | - | 93.70 | - |
| 5 | Chen | 2020-03-26 | China | 548 | Hospital | 62 (44-70) | 37.60 | 4.38 | - | - | - | 93.07 | - |
| 6 | Zhou, Yu | 2020-03-11 | China | 191 | Hospital | 56 (46-67) | 38.00 | 5.76 | - | - | - | 94.24 | - |
| 7 | Mo | 2020-03-16 | China | 155 | Hospital | 54 (53-66) | 44.50 | 3.87 | - | - | - | 96.13 | - |
| 8 | Zhang, Dong | 2020-02-19 | China | 140 | Hospital | 57^ (25-87) | 46.30 | 1.43 | - | - | - | 93.57 | - |
| 9 | Wan | 2020-03-21 | China | 135 | Hospital | 47 (36-55) | 46.70 | 6.67 | - | - | - | 93.33 | - |
| 10 | Liu, Tao | 2020-02-28 | China | 78 | Hospital | 38 (33-57) | 50.00 | - | 6.41 | - | - | 93.59 | - |
| 11 | Huang, Wang | 2020-01-24 | China | 41 | Hospital | 49 (41-58) | 27.00 | 7.32 | - | - | - | 92.68 | - |
| 12 | Zhang, Cai | 2020-03-20 | China | 645 | Hospital | NA | 49.10 | 6.36 | - | - | - | 93.64 | - |
| 13 | Guo | 2020-03-27 | China | 187 | Hospital | 59 (45-73) | 51.30 | 9.63 | - | - | - | 90.37 | - |
| 14 | Liu, Ming | 2020-03-12 | China | 41 | Hospital | 39 (30-48) | 58.50 | 9.76 | - | - | - | 90.24 | - |
| 15 | Huang, Yang | 2020-03-05 | China | 36 | Hospital | 69 (60-78) | 30.60 | - | 11.11 | - | - | 88.89 | - |
| 16 | Xu | 2020-03-08 | China | 53 | Hospital | NA | 47.20 | 11.32 | - | - | - | 88.68 | - |
| 17 | Li | 2020-02-12 | China | 17 | Hospital | 45 (33-57) | 47.10 | 17.65 | - | - | - | 82.35 | - |
| 18 | Rentsch | 2020-04-14 | USA | 3,528 | Community and Hospital | 66 (60-70) | 4.60 | 27.18 | - | 36.92 | - | - | 5.30 |
| 19 | Hu | 2020-03-25 | China | 323 | Hospital | 61^ (23-91) | 48.60 | - | 11.76 | - | - | 88.24 | - |
| 20 | Wang, Pan | 2020-03-24 | China | 125 | Hospital | 41 (26-66) | 43.20 | - | 12.80 | - | - | 87.20 | - |
| 22 | Petrilli | 2020-04-11 | USA | 4,103 | Community and Hospital | 52 (36-65) | 47.90 | 5.17 | - | - | 78.60 | - | - |
| 23 | Chow (US CDC) | 2020-03-31 | USA | 7,162 | Community and Hospital | NA | - | 1.34 | - | - | - | - | 96.36 |
| 25 | Dong, Cao | 2020-03-20 | China | 9 | Hospital | 44 (30-46) | 66.70 | 11.11 | - | - | - | 88.89 | - |
| 26 | Kim | 2020-04-01 | Korea | 28 | Hospital | 43 (30-56) | 46.40 | 17.86 | - | - | - | 78.57 | 3.57 |
| 27 | Shi, Yu | 2020-03-18 | China | 487 | Hospital | 46 (27-65) | 46.80 | - | 8.21 | - | - | 89.12 | 2.67 |
| 28 | Yang, Yu | 2020-02-24 | China | 52 | Hospital | 60 (47-73) | 37.00 | 3.85 | - | - | - | 96.15 | - |
| 29 | Argenziano | 2020-04-22 | USA | 1,000 | Hospital | 63 (50-75) | 40.40 | 4.90 | - | 77.20 | - | - | - |
| 30 | Solis | 2020-04-25 | Mexico | 650 | Hospital | 46 (NA) | 42.10 | 9.38 | - | - | - | 90.62 | - |
| 31 | Richardson | 2020-04-22 | USA | 5,700 | Hospital | 63 (52-75) | 39.70 | - | 9.79 | 52.79 | - | - | 37.42 |
| 32 | Fontanet | 2020-04-23 | France | 661 | Community and Hospital | 37 (16-47) | 62.00 | 10.44 | - | - | 89.56 | - | - |
| 33 | Zheng, Gao | 2020-04-19 | China | 66 | Hospital | 47^ (NA) | 25.80 | 12.12 | - | - | - | 87.88 | - |
| 34 | Liao, Feng | 2020-04-24 | China | 1,848 | Hospital | 55 (48-61) | 54.70 | - | 0.43 | - | - | 7.58 | 91.99 |
| 35 | Rodriguez | 2020-04-24 | Spain | 7 | Hospital | 68 (34-75) | 28.60 | - | 42.86 | 57.14 | - | - | - |
| 36 | Magagnoli | 2020-04-16 | USA | 368 | Hospital | 69 (59-75) | 0.00 | - | 14.13 | - | - | 85.87 | - |
| 37 | Shi, Ren | 2020-04-23 | China | 134 | Hospital | 46 (34-58) | 51.50 | - | 10.45 | - | - | 89.55 | - |
| 38 | Hadjadj | 2020-04-23 | France | 50 | Hospital | 55 (50-63) | 22.00 | 2.00 | - | 80.00 | - | - | - |
| 39 | Niedzwiedz | 2020-04-30 | UK | 1,474 | Community and Hospital | NA | - | 9.98 | - | 55.04 | - | - | 0.59 |
| 41 | Gold (US CDC) | 2020-04-20 | USA | 305 | Hospital | NA | 50.50 | 5.25 | - | - | - | - | 94.75 |
| 44 | Yu, Cai | 2020-04-27 | China | 95 | Hospital | NA | 44.21 | 8.42 | - | - | - | 91.58 | - |
| 45 | Zheng, Xiong | 2020-04-30 | China | 73 | Hospital | 43^ (NA) | 45.20 | - | 10.96 | 89.04 | - | - | - |
| 46 | Miyara | 2020-05-09 | France | 479 | Community and Hospital | NA | 44.70 | 6.68 | - | 59.71 | - | - | 1.88 |
| 47 | de la Rica | 2020-05-11 | Spain | 48 | Hospital | 66^ (33-88) | 33.00 | - | 20.83 | - | - | 77.08 | 2.08 |
| 48 | Yin, Yang | 2020-05-10 | China | 106 | Hospital | 73 (61-85) | 39.60 | - | 16.98 | - | - | 83.02 | - |
| 49 | Gaibazzi | 2020-05-10 | Italy | 441 | Hospital | 71 (62-80) | 38.00 | 4.76 | - | 85.26 | - | - | - |
| 50 | Shi, Zuo | 2020-05-10 | USA | 96 | Hospital | 63^ (44-82) | 41.00 | - | 30.21 | - | - | 69.79 | - |
| 51 | Cho | 2020-05-11 | UK | 1,331 | Community and Hospital | NA | 49.20 | 19.01 | - | 54.02 | - | - | - |
| 52 | Allenbach | 2020-05-08 | France | 152 | Hospital | 77 (60-83) | 31.10 | - | 6.58 | - | - | 93.42 | - |
| 53 | Robilotti | 2020-05-08 | USA | 423 | Hospital | NA | 50.00 | 2.13 | - | 58.63 | - | - | 1.65 |
| 54 | The Opensafely Collaborative | 2020-05-07 | UK | 17,425,445 | Community and Hospital | NA | 50.10 | 17.00 | - | 45.91 | - | - | 4.16 |
| 55 | Borobia | 2020-05-06 | Spain | 2,226 | Hospital | 61 (46-78) | 52.00 | 7.05 | - | - | - | 92.95 | - |
| 56 | Giacomelli | 2020-05-06 | Italy | 233 | Hospital | 61 (50-72) | 31.90 | - | 30.04 | 69.96 | - | - | - |
| 57 | Shah | 2020-05-06 | USA | 316 | Hospital | 63 (43-72) | 48.10 | 16.46 | - | 42.09 | - | - | 23.73 |
| 58 | Bello-Chavolla | 2020-05-06 | Mexico | 62,489 | Community and Hospital | NA | 49.40 | - | 9.94 | - | - | 90.06 | - |
| 59 | Kolin | 2020-05-05 | UK | 1,474 | Community and Hospital | 58 (49-67) | 46.60 | 14.45 | - | 44.57 | - | - | 0.81 |
| 60 | Lubetzky | 2020-05-08 | USA | 54 | Hospital | 57 (29-83) | 62.00 | - | 22.22 | - | - | 77.78 | - |
| 61 | Goyal | 2020-04-17 | USA | 393 | Hospital | 62.2 (49-74) | 39.30 | 5.09 | - | - | - | 94.91 | - |
| 62 | Feng | 2020-04-10 | China | 476 | Hospital | 53 (40-64) | 43.10 | 9.24 | - | - | - | 86.13 | 4.62 |
| 63 | Yao | 2020-04-24 | China | 108 | Hospital | 52 (37-58) | 60.20 | 3.70 | - | - | - | - | 96.30 |
| 64 | Sami | 2020-05-15 | Iran | 490 | Hospital | 56.6 (41-71) | 39.00 | 14.08 | - | - | 85.92 | - | - |
| 65 | Almazeedi | 2020-05-15 | Kuwait | 1,096 | Hospital | 41 (25-57) | 19.00 | 4.01 | - | - | 95.99 | - | - |
| 66 | Carillo-Vega | 2020-05-14 | Mexico | 10,544 | Community and Hospital | 46.5^ (30-62) | 42.30 | 8.88 | - | - | - | 91.12 | - |
| 67 | Yanover | 2020-05-13 | Israel | 4,353 | Community and Hospital | 35 (22-54) | 44.50 | 11.81 | - | 85.23 | - | - | - |
| 68 | Hamer | 2020-05-13 | UK | 387,109 | Hospital | 56.2 (48-64) | 55.10 | 9.67 | - | 55.50 | - | - | - |
| 69 | Regina | 2020-05-14 | Switzerland | 200 | Hospital | 70 (55-81) | 40.00 | 4.50 | - | - | - | 95.50 | - |
| 71 | de Lusignan | 2020-05-15 | UK | 3,802 | Community | 58 (34-73) | 57.60 | 10.86 | - | 29.59 | - | - | 13.44 |
| 72 | Targher | 2020-05-13 | China | 339 | Hospital | 48.4^ (NA) | 52.80 | 8.26 | - | - | - | 91.74 | - |
| 73 | Valenti | 2020-05-18 | Italy | 789 | Community | 40.7^ (NA) | 34.98 | 25.86 | - | - | - | 74.14 | - |
| 74 | Feuth | 2020-05-18 | Finland | 28 | Hospital | 56 (47-72) | 46.00 | 10.71 | - | 60.71 | - | - | - |
| 75 | Heng | 2020-05-18 | China | 51 | Hospital | 70 (58-79) | 27.50 | 13.73 | - | - | - | 86.27 | - |
| 76 | Parrotta | 2020-05-18 | USA | 76 | Community and Hospital | 44.9 (13-71) | 61.80 | 2.63 | - | 68.42 | - | 2.63 | - |
| 77 | Shekar | 2020-05-18 | USA | 50 | Hospital | 55.5 (20-85) | 54.00 | 48.00 | - | - | - | 52.00 | - |
| 78 | Mejia-Vilet | 2020-05-16 | Mexico | 329 | Hospital | 49 (41-60) | 36.00 | - | 6.99 | - | - | 93.01 | - |
| 79 | Chen, Jiang | 2020-05-16 | China | 135 | Hospital | NA | 42.20 | - | 9.63 | - | - | 90.37 | - |
| 80 | Jiong | 2020-05-16 | China | 1,008 | Hospital | 55 (44-65) | 43.60 | 5.65 | - | - | - | 48.02 | 46.33 |
| 81 | Rimland | 2020-05-19 | USA | 11 | Hospital | 59 (48-65) | 18.20 | 9.09 | - | - | - | 81.82 | - |
| 82 | Palaiodimos | 2020-05-15 | USA | 200 | Hospital | 64 (50-73.5) | 51.00 | - | 32.50 | 67.50 | - | - | - |
| 83 | Ip | 2020-05-25 | USA | 2,512 | Hospital | 64 (52-76) | 37.62 | 3.07 | - | 64.49 | - | - | 14.61 |
| 84 | Heili-Frades | 2020-05-25 | Spain | 4,712 | Hospital | 62 (47-77) | 50.50 | 4.94 | - | - | 66.49 | - | 11.16 |
| 85 | Vaquero-Roncero | 2020-05-24 | Spain | 146 | Hospital | 66^ (59-72) | 32.20 | - | 6.85 | - | - | 93.15 | - |
| 86 | Kim, Garg | 2020-05-22 | USA | 2,491 | Hospital | 62 (50-75) | 46.80 | 6.02 | - | - | 68.13 | - | 0.08 |
| 87 | Wu | 2020-05-21 | Italy | 174 | Hospital | 61.2^ (50-71) | 30.46 | - | 33.33 | - | - | 66.67 | - |
| 88 | Hopkinson | 2020-05-21 | UK | 2,401,982 | Community | 43.6^ (32-55) | 63.30 | - | 10.96 | - | - | 89.04 | - |
| 89 | Shi, Zhao | 2020-05-20 | China | 101 | Hospital | 71 (59-80) | 40.60 | - | 4.95 | - | - | 95.05 | - |
| 90 | Kimmig | 2020-05-20 | USA | 60 | Hospital | 64 (50-68) | 41.67 | - | 36.67 | - | - | 63.33 | - |
| 91 | Al-Hindawi | 2020-05-20 | UK | 31 | Hospital | 61 (NA) | 12.90 | 3.23 | - | 25.81 | - | - | - |
| 92 | Basse | 2020-05-19 | France | 141 | Hospital | 62 (52-72) | 72.00 | 17.73 | - | - | - | 82.27 | - |
| 93 | Freites | 2020-05-19 | Spain | 123 | Hospital | 59.88^ (44-74) | 69.92 | 3.25 | - | - | - | 96.75 | - |
| 94 | Alshami | 2020-05-19 | Saudi Arabia | 128 | Quarantine Centre | 39.6^ (24-55) | 53.90 | 15.62 | - | - | - | 82.03 | - |
| 95 | Russell | 2020-05-19 | UK | 106 | Hospital | 67^ (52-81) | 45.30 | 6.60 | - | 39.62 | - | 29.25 | - |
| 96 | Berumen | 2020-05-26 | Mexico | 102,875 | Hospital | NA | 49.08 | - | 9.64 | - | 90.36 | - | - |
| 97 | Gianfrancesco | 2020-05-29 | Multiple | 600 | Community and Hospital | 56 (45-67) | 71.00 | - | 21.50 | 64.83 | - | - | 13.67 |
| 98 | Li, Long | 2020-05-28 | China | 145 | Not Stated | 49^ (13-80) | 61.00 | - | 5.52 | - | - | 94.48 | - |
| 99 | Batty | 2020-06-01 | UK | 908 | Hospital | 57.27^ (48-66) | 44.27 | 11.23 | - | - | - | 88.77 | - |
| 100 | Israel | 2020-06-01 | Israel | 24,087 | Community and Hospital | 43.4^ (24-62) | 48.70 | 17.08 | - | 69.88 | - | - | - |
| 101 | del Valle | 2020-05-30 | USA | 1,484 | Hospital | 62 (52-72) | 40.60 | 5.53 | - | - | - | 45.82 | 25.34 |
| 102 | Zuo, Zuo | 2020-05-29 | USA | 44 | Hospital | 57^ (45-69) | 18.18 | - | 27.27 | - | - | 72.73 | - |
| 103 | Chaudhry | 2020-05-29 | USA | 40 | Community and Hospital | 52 (45.5-61) | 60.00 | - | 15.00 | - | - | 82.50 | 2.50 |
| 104 | Louis | 2020-06-28 | USA | 22 | Hospital | 66.5^ (55-77) | 36.40 | - | 45.45 | - | - | 54.55 | - |
| 105 | Soto-Mota | 2020-05-27 | Mexico | 400 | Hospital | NA | 30.00 | - | 12.00 | - | - | 88.00 | - |
| 106 | Patel | 2020-05-26 | USA | 104 | Hospital | 60.66^ (47-74) | 47.00 | 41.35 | - | - | 49.04 | - | 9.62 |
| 107 | Garibaldi | 2020-05-26 | USA | 832 | Hospital | 63 (49-75) | 47.00 | 5.53 | - | - | - | 71.88 | - |
| 108 | Docherty | 2020-05-22 | Multiple | 20,133 | Hospital | 72.9 (58-82) | 40.00 | 4.23 | - | 44.54 | - | - | 29.55 |
| 109 | Boulware | 2020-03-06 | Multiple | 821 | Community | 40 (33-50) | 51.60 | 3.29 | - | - | - | 96.71 | - |