

**Table S1.** Contents of the web-based questionnaires.

Questionnaires' sections	EPICOV19 phase I	EPICOV19 phase II
<i>Socio-demographic characteristics</i>		
Date of birth	✓	
Sex	✓	✓
Country and province of residency	✓	✓
Ethnicity	✓	
Educational attainment	✓	
Occupational level	✓	✓
Employment status	✓	✓
<i>Clinical features and COVID-19 related variables</i>		
Weight		✓
Height		✓
Blood type		✓
COVID-19-like symptoms	✓	✓
Presence of chronic diseases or conditions	✓	✓
Use of drugs or supplement	✓	✓
Vaccines	✓	✓
COVID-19 vaccine		✓
Use of birth pills and/or hormone replacement therapy	✓	✓
Currently and past pregnancy	✓	✓
Anti-androgens hormone therapy		✓
Contacts with COVID-19 cases	✓	✓
Fiduciary isolation (or quarantine)		✓
COVID-19 nasopharyngeal swab testing	✓	✓
Date of COVID-19 nasopharyngeal swab testing		✓
Type of COVID-19 nasopharyngeal swab testing		✓
Reasons for COVID-19 nasopharyngeal swab testing		✓
Time from symptoms		✓
COVID-19 serological testing		✓
Date of COVID-19 serological testing		✓
Type of COVID-19 serological testing		✓
Reasons for COVID-19 serological testing		✓
Contact with emergency number	✓	✓
Hospitalization for COVID-19	✓	✓
<i>Personal characteristics and behaviours</i>		
Self-reported health status	✓	✓
Fear of SARS-CoV-2 <sup>^</sup> infection	✓	✓
Sleep disorders		✓
Anxiety and stress perceived		✓
Change of behaviours during the confinement		✓
Population density in the area of residence	✓	
Traffic intensity	✓	
Number of co-habitants	✓	✓
Number of rooms	✓	✓
Home heating system		✓

Presence of at-risk co-habitants	✓	
Presence of co-habitants aged less than 18 years		✓
Daily mean number of contacts	✓	
Smoking habit	✓	✓
Alcoholic beverages		✓
Physical activity	✓	
Job condition	✓	
Going out weekly	✓	
Use of public transportation	✓	
House property		✓
Cars property		✓
Number of cars		✓
COVID-19 sources of information		✓
Risk perceived		✓

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^SARS-CoV-2: severe acute respiratory syndrome coronavirus 2.

**Table S2.** Validated scales and questionnaires used in EPICOV19 survey

Validated scales and questionnaires	Measures
Educational attainment	<a href="http://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-iscd-2011-en.pdf">http://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-iscd-2011-en.pdf</a>
Occupational status	<a href="https://www.eurofound.europa.eu/surveys/ewcs/2005/classification">https://www.eurofound.europa.eu/surveys/ewcs/2005/classification</a>
Self-perceived health status	<a href="https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Self-perceived_health">https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Self-perceived_health</a>
Risk perception	Kim, J.S.; et al. Middle East respiratory syndrome-related knowledge, preventive behaviours and risk perception among nursing students during outbreak. J Clin Nurs. 2016 Sep;25(17-18):2542-9.
Clinical features	World Health Organization & International Severe Acute Respiratory and emerging Infection Consortium. (2020). Global COVID-19 Clinical Platform Novel Coronavirus (COVID-19)- Rapid Version, “ <a href="https://www.who.int/docs/default-source/coronaviruse/who-ncov-crf.pdf?sfvrsn=84766e69_2,">https://www.who.int/docs/default-source/coronaviruse/who-ncov-crf.pdf?sfvrsn=84766e69_2,</a> ” [Online]. Case Record Form Instructions Severe Acute Respiratory Infection Clinical Characterization Data Tool, “ <a href="https://media.tghn.org/medialibrary/2019/06/SPRINT-SARI_CRF.V2_Dec_2017__Complete.pdf">https://media.tghn.org/medialibrary/2019/06/SPRINT-SARI_CRF.V2_Dec_2017__Complete.pdf,</a> ” [Online]. M. E. R. S. C. (MERS-CoV), “ <a href="https://www.who.int/csr/disease/coronavirus_infections/MERS_case_investigation_questionnaire.pdf?ua=1,">https://www.who.int/csr/disease/coronavirus_infections/MERS_case_investigation_questionnaire.pdf?ua=1,</a> ” [Online].
Self-reported traffic intensity	Cesaroni, G.; Badaloni, C.; Porta, D.; Forastiere, F.; et al. Comparison between various indices of exposure to traffic-related air pollution and their impact on respiratory health in adults. Occup Environ Med. 2008 Oct;65(10):683-90.
Physical activity	Centers for Disease Control and Prevention, “Strategies to Prevent Obesity and Other Chronic Diseases: The CDC Guide to Strategies to Increase Physical Activity in the Community. Atlanta: U.S. Department of Health and Human Services; 2011.
Sleeping disorders	Jenkins, C.D.; Stanton, B.A.; Niemcryk, S.J.; Rose, R.M. A scale for the estimation of sleep problems in clinical research. J Clin Epidemiol 1988;41(4):313-21
Smoking habit	National Health Interview Survey – Adult tobacco use information. Centers for Disease Prevention and Control. 2017 Aug 29 <a href="https://www.cdc.gov/nchs/nhis/tobacco/tobacco_glossary.htm">https://www.cdc.gov/nchs/nhis/tobacco/tobacco_glossary.htm</a>
Perceived stress	Cohen, S.; Kamarck, T.; and Mermelstein, R. A global measure of perceived stress. Journal of Health and Social Behavior. 1983, 24, 386-396 (adapted)
Alcohol consumption	Frank, D.; De Benedetti, A.F.; Volk, R.J.; Williams, E.C.; Kivlahan, D.R.; Bradley, K.A. Effectiveness of the AUDIT-C as a screening test for alcohol misuse in three race/ethnic groups. J Gen Intern Med. 2008, 23(6):781-787 (adapted)
Deprivation index	Townsend, P.; Phillimore, P.; Beattie, A. (1988) Health and Deprivation: Inequality and the North Croom Helm: London



**Table S3.** Characteristics of individuals who participated in phase II survey ( $n=41,473$ ) and of those who did not ( $n=157,349$ )

		Phase II survey		<i>p-value</i>
		Participated ( $n=41,473$ )	Did not participate ( $n=157,349$ )	
Sex	Females	25,146 (60.6)	93,524 (59.4)	<0.001
	Males	16,327 (39.4)	63,825 (40.6)	
Class of age	18-29	3,255 (7.8)	21,564 (13.7)	<0.001
	30-39	7,336 (17.7)	30,427 (19.3)	
	40-49	9,274 (22.4)	33,468 (21.3)	
	50-59	10,616 (25.6)	35,415 (22.5)	
	60-69	8,217 (19.8)	25,416 (16.2)	
	70-79	2,523 (6.1)	9,083 (5.8)	
	80+	252 (0.6)	1,976 (1.3)	
Italian area	Northern	29,072 (70.1)	104,605 (66.5)	<0.001
	Central	8,282 (20.0)	32,600 (20.7)	
	Southern and islands	4,096 (9.9)	19,754 (12.6)	
	Abroad or unknown	23 (0.1)	390 (0.2)	
Educational level	Low	1,381 (3.3)	10,473 (6.7)	<0.001
	Middle	12,934 (31.2)	55,866 (35.5)	
	High	27,158 (65.5)	91,010 (57.8)	
Education	None	19 (0.0)	253 (0.2)	<0.001
	Elementary school	36 (0.1)	987 (0.6)	
	Secondary school license	1,326 (3.2)	9,233 (5.9)	
	Secondary school diploma	12,934 (31.2)	55,866 (35.5)	
	University degree	18,263 (44.0)	63,666 (40.5)	
	Postgraduate degree	8,895 (21.4)	27,344 (17.4)	
Employment status	Employed	29,299 (70.6)	107,557 (68.4)	<0.001
	Student	1,703 (4.1)	11,733 (7.5)	
	Unemployed	1,671 (4.0)	7,513 (4.8)	
	Retired	6,611 (15.9)	21,697 (13.8)	
	Other	2,189 (5.3)	8,849 (5.6)	
Healthcare workers	No	38,179 (92.1)	145,907 (92.7)	<0.001
	Yes	3,294 (7.9)	11,442 (7.3)	
N° of morbidities	None	25,466 (61.4)	101,791 (64.7)	<0.001
	One	11,628 (28.0)	40,736 (25.9)	
	Two	3,356 (8.1)	11,181 (7.1)	
	Three or more	1,023 (2.5)	3,641 (2.3)	
Number of rooms in the house	One	414 (1.0)	1,752 (1.1)	0.049
	Two	3,998 (9.6)	15,583 (9.9)	
	Three	10,596 (25.5)	40,403 (25.7)	
	More than three	26,465 (63.8)	99,611 (63.3)	
Number of cohabitant people	No one	5,713 (13.8)	19,383 (12.3)	<0.001
	One	13,819 (33.3)	49,205 (31.3)	
	Two	9,611 (23.2)	37,699 (24.0)	
	More than two	12,330 (29.7)	51,062 (32.5)	

**Table S4.** Standardized response rates per 100,000 inhabitants by Italian region over the phase II study period.

<b>Region</b>	<b>Frequency</b>	<b>Percentage</b>	<b>Italian population*</b>	<b>Response rate</b>
Abruzzo	330	0.8	1,311,580	25.2
Basilicata	110	0.3	562,869	19.5
Calabria	199	0.5	1,947,131	10.2
Campania	886	2.1	5,801,692	15.3
Emilia-Romagna	4,485	10.8	4,459,477	100.6
Friuli-Venezia Giulia	812	2.0	1,215,220	66.8
Lazio	4,072	9.8	5,879,082	69.3
Liguria	1494	3.6	1,550,640	96.3
Lombardia	13,832	33.4	10,057,370	137.5
Marche	710	1.7	1,525,271	46.5
Molise	63	0.2	305,617	20.6
Piemonte	4,644	11.2	4,356,406	106.6
Puglia	918	2.2	4,029,053	22.8
Sardegna	868	2.1	1,639,591	52.9
Sicilia	722	1.7	4,999,891	14.4
Toscana	3,188	7.7	3,729,641	85.5
Trentino	598	1.4	1,072,276	55.8
Umbria	312	0.8	882,015	35.4
Valle d'Aosta	76	0.2	125,666	60.5
Veneto	3,131	7.5	4,905,854	63.8

\*Resident in Italy on 1 January 2020 (ISTAT)

**Table S5.** Frequency of self-reported symptoms by sex and by positivity to NPS and/or ST between March 2020 and February 2021 (*n*=41,473)

<b>Self-reported symptoms</b>	<b>Total (<i>n</i>=41,473)</b>	<b>Total positive cases (<i>n</i>=4,411)</b>	<b>Females (<i>n</i>=25,146)</b>	<b>Females positive cases (<i>n</i>=2,716)</b>	<b>Males (<i>n</i>=16,327)</b>	<b>Males positive cases (<i>n</i>=1,695)</b>
Fever	6,290 (15.2)	2,560 (58.0)	3,755 (14.9)	1,504 (55.4)	2,535 (15.5)	1,056 (62.3)
Cough	6,159 (14.9)	1,908 (43.3)	3,672 (14.6)	1,142 (42.1)	2,487 (14.9)	766 (45.2)
Headache	11,554 (27.9)	2,324 (52.7)	8,027 (31.9)	1,578 (58.1)	3,527 (21.6)	746 (44.0)
Myalgia	9,064 (21.9)	2,849 (64.6)	6,066 (24.1)	1,837 (67.6)	2,998 (18.4)	1,012 (59.7)
Shortness of breath	3,272 (7.9)	1,364 (30.9)	2,134 (8.5)	893 (32.9)	1,138 (7.0)	471 (27.8)
Chest pain	2,054 (5.0)	731 (16.6)	1,346 (5.4)	495 (18.2)	708 (4.3)	236 (13.9)
Gastrointestinal	7,330 (17.7)	1,553 (35.2)	4,840 (19.2)	1,047 (38.6)	2,490 (15.3)	506 (29.9)
Sore throat/rhinorrhoea	10,157 (24.5)	1,927 (43.7)	6,493 (25.8)	1,256 (46.2)	3,664 (22.4)	671 (39.6)
Dysgeusia	3,299 (8.0)	2,129 (48.3)	2,205 (8.8)	1,418 (52.2)	1,094 (6.7)	711 (42.0)
Anosmia	3,391 (8.2)	2,275 (51.6)	2,280 (9.1)	1,518 (55.9)	1,111 (6.8)	757 (44.7)
Loss of appetite	1,778 (4.3)	932 (21.1)	1,229 (4.9)	639 (23.5)	549 (3.4)	293 (17.3)
Cardiological	2,732 (6.6)	679 (15.4)	1,951 (7.8)	499 (18.4)	781 (4.8)	180 (10.6)
Dermatological	2,304 (25.6)	456 (10.3)	1,534 (6.1)	316 (11.6)	770 (4.7)	140 (8.3)
Neurological	1,747 (4.2)	648 (14.7)	1,285 (5.1)	490 (18.0)	462 (2.8)	158 (9.3)

Number are counts and row percentages