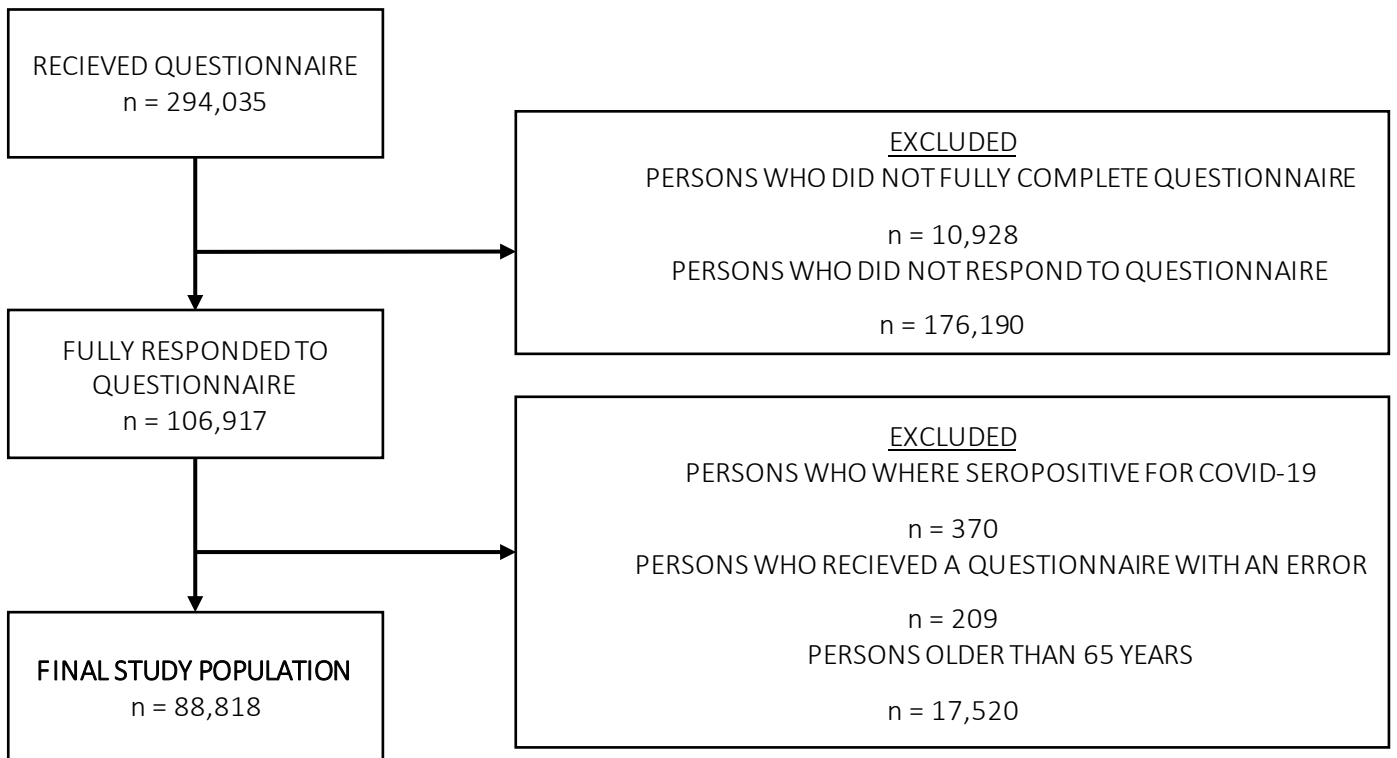


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Figure S1: Flowchart of study population.



Overview of how study participants were included and excluded.

Table S1: Overview of study variables and data sources

Exposure	Description	Data type	Categorization	Data source
SARS-CoV-2 infection	Registered RT-PCR test result.	Categorical variable.	“Positive” (exposure) “Negative” (reference)	MiBa
Outcomes	Description	Data type	Categorization	Data source
Sick leave	Self-reported.	Categorical variable.	“No or ≤4 weeks of sick leave >4 weeks after the test date” “>4 weeks of sick leave >4 weeks after the test date”	EFTER COVID
Covariates	Description	Data type	Categorization	Data source
Age	Registered.	Categorical variable.	“15-19 years” “20-29 years” “30-39 years” “50-59 years” “60-65years”	CPR
Sex	Registered.	Categorical variable.	“Male” “Female”	CPR
Charlson Comorbidity Index	Self-reported. Based on Charlson Comorbidity Index.	Categorical variable.	“0” “1” “2” “≥3”	EFTER COVID
Vaccination status	Registered.	Categorical variable.	“Primary course >2 weeks before test date” “0 doses”	DNPR
Smoking	Self-reported.	Categorical variable.	“Current smoker” “Previous smoker” “Electronic cigarette smoker” “Never smoker”	EFTER COVID
Alcohol consumption	Self-reported.	Categorical variable.	“No or moderate; ≤10 units of pure alcohol per week” “Heavy; >10 units of 15ml of pure alcohol per week”	EFTER COVID
Fibromyalgia	Self-reported.	Categorical variable.	“Yes, before test” “No”	EFTER COVID

COPD/other chronic lung disease	Self-reported.	Categorical variable.	“Yes, before test” “No”	EFTER COVID
Diabetes	Self-reported.	Categorical variable.	“Yes, before test” “No”	EFTER COVID
PTSD	Self-reported.	Categorical variable.	“Yes, before test” “No”	EFTER COVID
Depression	Self-reported.	Categorical variable.	“Yes, before test” “No”	EFTER COVID
Anxiety	Self-reported.	Categorical variable.	“Yes, before test” “No”	EFTER COVID
Asthma	Self-reported.	Categorical variable.	“Yes, before test” “No”	EFTER COVID
Hypertension	Self-reported.	Categorical variable.	“Yes, before test” “No”	EFTER COVID
Chronic headaches	Self-reported.	Categorical variable.	“Yes, before test” “No”	EFTER COVID
Chronic fatigue syndrome	Self-reported.	Categorical variable.	“Yes, before test” “No”	EFTER COVID
Obesity	Height and weight were self-reported. Obesity was based on BMI*.	Categorical variable.	“Yes” “No”	EFTER COVID
Education	Self-reported.	Categorical variable.	“Higher education (>5 years, MSc, PhD)” “Higher education (2-4 years, BSc)” “Higher education (1-2 years, vocational academy)” “General secondary or vocational secondary education” “Vocational training” “Primary or elementary school (9th-10th grade)” “Don’t know”	EFTER COVID
Healthcare worker	Registered.	Categorical variable.	“Yes” “No”	EFTER COVID

Abbreviations and more descriptions here

COPD: chronic obstructive pulmonary disease

PTSD: post-traumatic stress disorder

MiBa: Danish Microbiology Database

CPR: Central Person Register

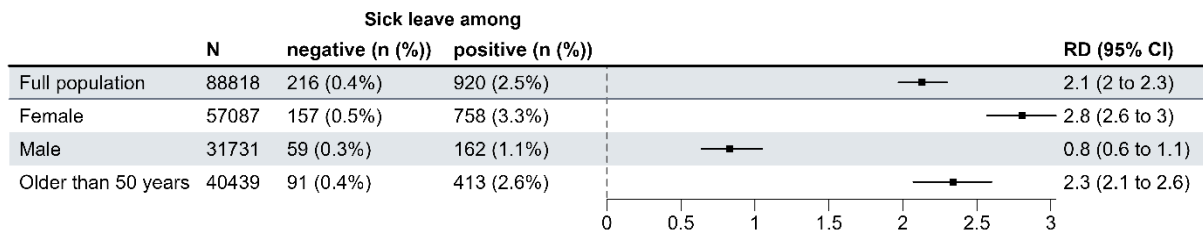
DNPR: Danish National Patient Register

EFTER COVID: After Covid Survey, a population-level survey

*BMI: Body Mass Index. Defined as $BMI \geq 30\text{kg/m}^2$ for individuals aged ≥ 18 years. For individuals aged 15-17 years, international cutoff points for obesity by sex and age were used (Cole et al.).

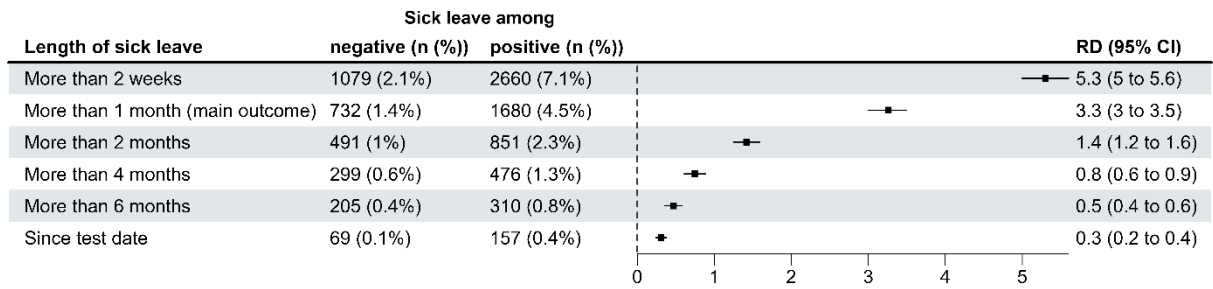
Cole TJ, Bellizzi MC, Flegal KM, Dietz WH. Establishing a standard definition for child overweight and obesity worldwide: international survey. *Bmj*. 2000;320(7244):1240.

Figure S2: Risk differences (RDs) and 95% confidence intervals (CIs) for part-time substantial sick leave one to nine months after test date between SARS-CoV-2 test-positives and negatives.



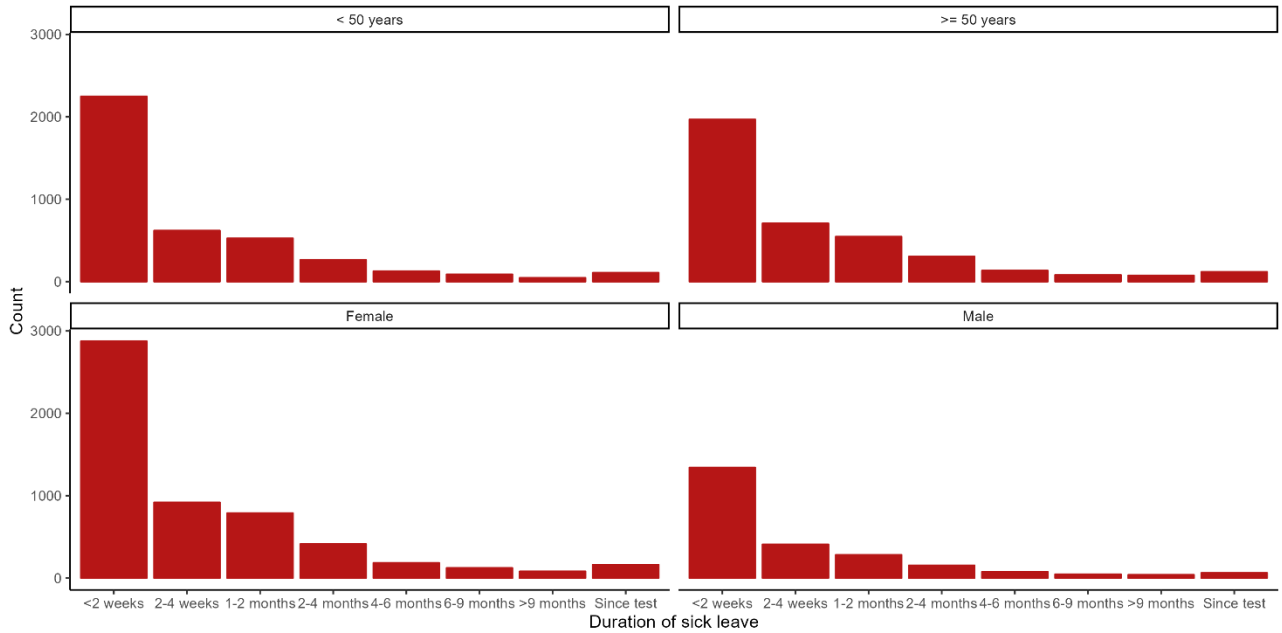
Risk differences (RDs) and 95% confidence intervals (CIs) for part-time substantial sick leave one to nine months after test date between SARS-CoV-2 test-positives and negatives. Part-time substantial sick leave is defined as >4 weeks of part-time sick leave one to nine months after the test date. Risk differences are expressed in percentage points and adjusted for age, sex, Charlson Comorbidity Index, educational level, and select pre-existing conditions (chronic diseases).

Figure S3: Risk differences (RDs) and 95% confidence intervals (CIs) for sick leave by differing duration. RDs are adjusted for age, sex, Charlson Comorbidity Index, educational level, and select pre-existing conditions (chronic diseases).



Risk differences are expressed in percentage points and adjusted for age, sex, Charlson Comorbidity Index, educational level, and select pre-existing conditions (chronic diseases).

Figure S4: A distributional plot of the underlying self-reported sick leave by age (<50 years, ≥50 years) and sex.



The distribution of the underlying duration of self-reported sick leave by age and sex: <50 years (upper-left), ≥50 years (upper-right), Female (lower-left), Male (lower-right).

Number of persons in each category:

N= 4023 persons <50 years

N= 3932 persons ≥ 50 years

N= 5545 females

N= 2410 males

Table S2: Risk differences (RDs) and 95% confidence intervals (CI) for substantial sick leave taken one to nine months after the test date between SARS-CoV-2 test-negatives and positives for the total study population, stratified on educational level.

Highest completed education	N	Sick leave among test-negatives	Sick leave among test-positives	RD (95% CI)
Primary or elementary school (9 th -10 th grade)	7258	48 (1.1%)	122 (4.1%)	3.7 (2.7, 4.7)
General secondary or vocational secondary education	9838	58 (1.3%)	116 (2.45)	2.1 (1.3, 2.8)
Vocational training	14245	142 (1.7%)	318 (5.5%)	3.9 (3.3, 4.6)
Higher education (1-2 years, vocational academy)	10066	81 (1.3%)	191 (4.7%)	3.1 (2.5, 3.8)
Higher education (2-4 years, BSc)	29384	272 (1.6%)	673 (5.5%)	3.8 (3.4, 4.2)
Higher education (>5 years, MSc, PhD)	15737	115 (1.2%)	207 (3.0%)	1.9 (1.4, 2.4)
Don't know	2289	16 (1.3%)	52 (5.1%)	3.8 (2.2, 5.2)
<p>N = 88,818 participants ages 15-65 years (response rate = 36%). N_{positive} = 51,336, N_{negative} = 37,482.</p> <p>Risk differences are expressed in percentage points and adjusted for age, sex, Charlson Comorbidity Index, and select pre-existing conditions (chronic diseases).</p>				

Table S3: Characteristics of test-positive population divided into subcategories based on substantial sick leave and long covid hospitalization.

Background characteristics	Only positive test result	Substantial sick leave only	Substantial sick leave and long covid hospitalization*	Only long covid hospitalization
	(N=35246)	(N=1326)	(N=354)	(N=556)
Sex				
Female	21390 (60.7%)	956 (72.1%)	261 (73.7%)	395 (71.0%)
Male	13856 (39.3%)	370 (27.9%)	93 (26.3%)	161 (29.0%)
Age				
Mean (SD)	43.3 (14.0)	48.4 (11.5)	48.6 (11.2)	46.7 (12.0)
Median [Min, Max]	46.0 [15.0, 65.0]	50.0 [15.0, 65.0]	50.0 [20.0, 65.0]	48.0 [15.0, 65.0]
Charlson Comorbidity Index				
0	32101 (91.1%)	1118 (84.3%)	289 (81.6%)	480 (86.3%)
1	1759 (5.0%)	118 (8.9%)	40 (11.3%)	50 (9.0%)
2	1038 (2.9%)	66 (5.0%)	18 (5.1%)	22 (4.0%)
3 or more	348 (1.0%)	24 (1.8%)	7 (2.0%)	4 (0.7%)
Educational level (highest)				
Higher education (>5 years, MSc, PhD)	6509 (18.5%)	173 (13.0%)	34 (9.6%)	83 (14.9%)
Higher education (2-4 years, BSc)	11235 (31.9%)	502 (37.9%)	171 (48.3%)	239 (43.0%)
Higher education (1-2 years, vocational academy)	3814 (10.8%)	159 (12.0%)	2 (9.0%)	62 (11.2%)
Primary or elementary school (9 th -10 th grade)	2838 (8.1%)	102 (7.7%)	20 (5.6%)	31 (5.6%)
General secondary or vocational secondary education	(12.9%)	98 (7.4%)	18 (5.1%)	37 (6.7%)
Vocational training	5343 (15.2%)	247 (18.6%)	71 (20.1%)	94 (16.9%)
Don't know	949 (2.7%)	44 (3.3%)	8 (2.3%)	10 (1.8%)
Healthcare worker				
No	30471 (86.5%)	1097 (82.7%)	266 (75.1%)	450 (80.9%)
Yes	4775 (13.5%)	229 (17.3%)	88 (24.9%)	88 (24.9%)
obesity				
no	27146 (77.0%)	850 (64.1%)	213 (60.2%)	390 (70.1%)
unknown	2507 (7.1%)	118 (8.9%)	25 (7.1%)	30 (5.4%)
yes	5593 (15.9%)	358 (27.0%)	116 (32.8%)	136 (24.5%)
Fibromyalgia				
No	34643 (98.3%)	1270 (95.8%)	330 (93.2%)	540 (97.1%)
Before test	285 (0.8%)	30 (2.3%)	9 (2.5%)	5 (0.9%)
Chronic fatigue syndrome				
No	33671 (95.5%)	1184 (89.3%)	290 (81.9%)	488 (87.8%)
Before test	434 (1.2%)	29 (2.2%)	7 (2.0%)	12 (2.2%)
Anxiety				
No	31495 (89.4%)	1061 (80.0%)	284 (80.2%)	461 (82.9%)
Before test	2765 (7.8%)	155 (11.7%)	21 (5.9%)	53 (9.5%)
Depression				

No	30449 (86.4%)	926 (69.8%)	259 (73.2%)	434 (78.1%)
Before test	3840 (10.9%)	277 (20.9%)	53 (15.0%)	79 (14.2%)
Post traumatic stress disorder				
No	34217 (97.1%)	1236 (93.2%)	324 (91.5%)	520 (93.5%)
Before test	636 (1.8%)	49 (3.7%)	12 (3.4%)	23 (4.1%)
Asthma				
No	32693 (92.8%)	1165 (87.9%)	304 (85.9%)	481 (86.5%)
Before test	2553 (7.2%)	161 (12.1%)	50 (14.1%)	75 (13.5%)
Diabetes				
No	34141 (96.9%)	1248 (94.1%)	330 (93.2%)	536 (96.4%)
Before test	1105 (3.1%)	78 (5.9%)	24 (6.8%)	20 (3.6%)
High blood pressure				
No	31678 (89.9%)	1119 (84.4%)	299 (84.5%)	493 (88.7%)
Before test	3568 (10.1%)	207 (15.6%)	55 (15.5%)	63 (11.3%)
COPD or other lung disease				
No	34868 (98.9%)	1295 (97.7%)	344 (97.2%)	549 (98.7%)
Before test	378 (1.1%)	31 (2.3%)	10 (2.8%)	7 (1.3%)
Chronic or frequent headaches, including migraines				
No	33934 (96.3%)	1227 (92.5%)	330 (93.2%)	522 (93.9%)
Before test	1312 (3.7%)	99 (7.5%)	24 (6.8%)	34 (6.1%)
*Long covid hospitalization is defined by the ICD-10 code B948A registered in the Danish National Patient Register (DNPR).				

Table S4: Background characteristics for respondents, partial-respondents, and non-respondents.

Background characteristics	Completed questionnaire	Did not complete questionnaire	Partially completed questionnaire
	(N=106917)	(N=176190)	(N=10928)
Sex			
Female	66161 (61.9%)	91057 (51.7%)	7004 (64.1%)
Male	40755 (38.1%)	85131 (48.3%)	3924 (35.9%)
Missing	1 (0.0%)	2 (0.0%)	0 (0%)
Age group (years)			
15-19	4071 (3.8%)	22922 (13.0%)	1261 (11.5%)
20-29	13000 (12.2%)	46545 (26.4%)	2073 (19.0%)
30-39	12647 (11.8%)	33914 (19.2%)	1781 (16.3%)
40-49	18969 (17.7%)	31569 (17.9%)	1861 (17.0%)
50-59	27014 (25.3%)	23935 (13.6%)	1917 (17.5%)
60-69	19551 (18.3%)	10364 (5.9%)	1134 (10.4%)
70+	11664 (10.9%)	6939 (3.9%)	901 (8.2%)
Missing	1 (0.0%)	2 (0.0%)	0 (0%)
Charlson Comorbidity Index			
0	92179 (86.2%)	159920 (90.8%)	9431 (86.3%)
1	7243 (6.8%)	9163 (5.2%)	760 (7.0%)
2	5293 (5.0%)	4750 (2.7%)	460 (4.2%)
3 or more	2201 (2.1%)	2355 (1.3%)	277 (2.5%)
Missing	1 (0.0%)	2 (0.0%)	0 (0%)