

SUPPLEMENTARY MATERIALS

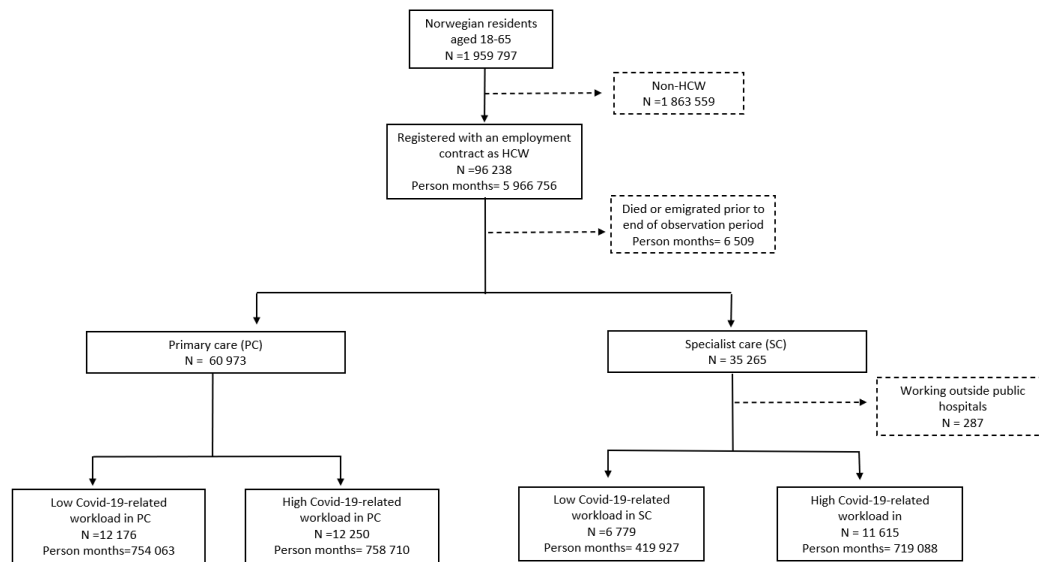


Figure A1 Flowchart of sample used in the analysis.

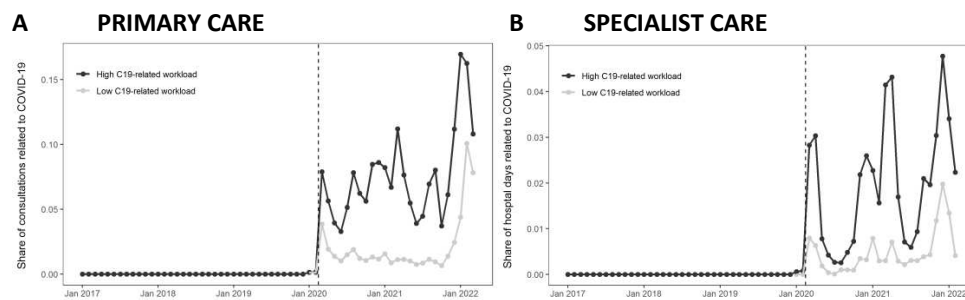


Figure A2 The COVID-19 related workload (consultations/hospital days) over time for 1st and 5th quintile of the COVID-19 related workload, in primary (A) and specialist (B) care.

Table A1 Descriptive statistics for workers in low and high C19-related workload areas in primary and specialist care

	Primary care				Specialist care			
	Low C19-related workload		High C19-related workload		Low C19-related workload		High C19-related workload	
	Mean/ share	sd	Mean/ share	sd	Mean/ share	sd	Mean/ share	sd
Age	42.4	(7.69)	42	(7.56)	41.3	(7.46)	40.9	(7.38)
Women	88 %	(32.8)	83 %	(37.2)	81 %	(39.6)	78 %	(41.5)
Immigrants	23 %	(42.2)	51 %	(50.0)	12 %	(32.8)	23 %	(42.3)
Occupational groups								
Physicians	6 %	(24.4)	5 %	(22.2)	24 %	(42.9)	27 %	(44.6)
Nurses	31 %	(46.2)	29 %	(45.5)	68 %	(46.8)	63 %	(48.3)
Health professionals	41 %	(49.1)	46 %	(49.9)	4 %	(20.3)	5 %	(21.5)
Personal care workers	22 %	(41.5)	19 %	(39.3)	4 %	(19.5)	5 %	(21.2)
N	12 176		12 250		6 779		11 615	

Table A2 Average monthly sick leave rates in primary and specialist care, prior to (“Pre”, 2017 to February 2020), and after the onset of the pandemic, i.e. (“Post”, March 2020–February 2022). Standard errors clustered on the level of individual in parentheses.

	All-cause sick leave		Not COVID-19 related sick leave	
	Pre	Post	Pre	Post
Primary care	10.3 [95% CI: 10.2,10.4]	13.1 [95% CI: 12.98,13.22]	10.29 [95% CI: 10.19,10.39]	11.46 [95% CI: 11.34,11.58]
Specialist care	7.45 [95% CI: 7.33,7.57]	9.66 [95% CI: 9.52,9.8]	7.44 [95% CI: 7.32,7.56]	8.09 [95% CI: 7.95,8.23]

Table A3 Average monthly all-cause sick leave rates (A) and sick leave not related to COVID-19 infections (B) in primary and specialist care. Standard errors clustered on the level of individual in parentheses.

A		All-cause sick leave			
Month	Type	2017-2019	2020	2021	2022
1	Primary care	12.54(0.09)	11.96(0.13)	13.99(0.14)	22.48(0.17)
2	Primary care	11.09(0.08)	11.78(0.13)	12.91(0.14)	22.91(0.17)
3	Primary care	10.4(0.08)	17.44(0.15)	14.36(0.14)	NA
4	Primary care	10.56(0.08)	10.18(0.12)	12.67(0.13)	NA
5	Primary care	10.01(0.08)	10.51(0.12)	13.32(0.14)	NA
6	Primary care	9.28(0.07)	11.43(0.13)	10.81(0.13)	NA
7	Primary care	7.89(0.07)	7.69(0.11)	7.55(0.11)	NA
8	Primary care	8.71(0.07)	11.56(0.13)	12.26(0.13)	NA
9	Primary care	10.09(0.08)	10.81(0.13)	12.16(0.13)	NA
10	Primary care	10.88(0.08)	11.79(0.13)	12.47(0.13)	NA
11	Primary care	10.5(0.08)	14.4(0.14)	16.78(0.15)	NA
12	Primary care	10.63(0.08)	10.8(0.13)	13.08(0.14)	NA
1	Specialist care	9.11(0.1)	8.98(0.15)	9.57(0.16)	19.71(0.21)
2	Specialist care	8.24(0.09)	8.72(0.15)	8.86(0.15)	21.45(0.22)
3	Specialist care	7.66(0.09)	12.72(0.18)	9.99(0.16)	NA
4	Specialist care	7.76(0.09)	6.8(0.13)	9.03(0.15)	NA
5	Specialist care	7.15(0.09)	7.21(0.14)	9.68(0.16)	NA
6	Specialist care	6.73(0.08)	7.48(0.14)	7.52(0.14)	NA
7	Specialist care	5.37(0.07)	4.77(0.11)	5.1(0.12)	NA
8	Specialist care	6.07(0.08)	8.1(0.15)	8.66(0.15)	NA
9	Specialist care	7.27(0.09)	7.55(0.14)	9.15(0.15)	NA
10	Specialist care	7.83(0.09)	8.29(0.15)	9.55(0.16)	NA
11	Specialist care	7.76(0.09)	10.36(0.16)	13.32(0.18)	NA
12	Specialist care	7.5(0.09)	7.09(0.14)	10.06(0.16)	NA

B		Sick leave not related to COVID-19 infection			
Month	Type	2017-2019	2020	2021	2022
1	Primary care	12.53(0.09)	11.95(0.13)	12.81(0.14)	13.59(0.14)
2	Primary care	11.08(0.08)	11.77(0.13)	12.18(0.13)	10.85(0.13)
3	Primary care	10.38(0.08)	15.35(0.15)	13.28(0.14)	NA
4	Primary care	10.54(0.08)	9.5(0.12)	11.88(0.13)	NA
5	Primary care	10(0.08)	10.15(0.12)	12.84(0.14)	NA
6	Primary care	9.26(0.07)	11.19(0.13)	10.58(0.12)	NA
7	Primary care	7.88(0.07)	7.5(0.11)	7.31(0.11)	NA
8	Primary care	8.7(0.07)	11.16(0.13)	11.53(0.13)	NA
9	Primary care	10.08(0.08)	10.42(0.12)	11.44(0.13)	NA
10	Primary care	10.86(0.08)	11.29(0.13)	11.75(0.13)	NA
11	Primary care	10.49(0.08)	13.2(0.14)	14.71(0.14)	NA
12	Primary care	10.61(0.08)	9.82(0.12)	10.7(0.13)	NA
1	Specialist care	9.11(0.1)	8.97(0.15)	8.75(0.15)	10.09(0.16)
2	Specialist care	8.23(0.09)	8.71(0.15)	8.37(0.15)	8.45(0.15)
3	Specialist care	7.65(0.09)	10.91(0.17)	9.27(0.16)	NA
4	Specialist care	7.75(0.09)	6.26(0.13)	8.56(0.15)	NA
5	Specialist care	7.14(0.09)	6.93(0.14)	9.36(0.16)	NA
6	Specialist care	6.72(0.08)	7.28(0.14)	7.35(0.14)	NA
7	Specialist care	5.36(0.07)	4.63(0.11)	4.94(0.12)	NA
8	Specialist care	6.06(0.08)	7.8(0.14)	8.15(0.15)	NA
9	Specialist care	7.26(0.09)	7.16(0.14)	8.49(0.15)	NA
10	Specialist care	7.82(0.09)	7.82(0.14)	8.93(0.15)	NA
11	Specialist care	7.75(0.09)	9.47(0.16)	11.12(0.17)	NA
12	Specialist care	7.5(0.09)	6.44(0.13)	7.76(0.14)	NA

Table A4 Average all-cause sick leave rates in primary and specialist care for low and high COVID-19 related workload. Standard errors clustered on the level of individual in parentheses.

Year	Month	Primary care			Specialist care		
		Low C19-related burden	High C19-related workload	Difference	Low C19-related workload	High C19-related workload	Difference
2017-2019	1	11.25(0.18)	12.82(0.19)	1.57(0.27)	8.81(0.22)	9.68(0.18)	0.87(0.28)
2017-2019	2	10.27(0.17)	11.04(0.18)	0.77(0.25)	8.08(0.21)	8.57(0.16)	0.48(0.27)
2017-2019	3	9.61(0.17)	10.29(0.17)	0.68(0.27)	7.4(0.2)	8.02(0.16)	0.62(0.29)
2017-2019	4	9.69(0.17)	10.23(0.17)	0.54(0.28)	7.48(0.2)	8.01(0.16)	0.52(0.29)
2017-2019	5	9.32(0.16)	9.7(0.17)	0.38(0.28)	7.21(0.2)	7.34(0.15)	0.13(0.3)
2017-2019	6	8.67(0.16)	9.21(0.16)	0.54(0.28)	6.37(0.18)	7.17(0.15)	0.8(0.3)
2017-2019	7	7.27(0.14)	8.52(0.16)	1.25(0.29)	5.15(0.16)	5.62(0.13)	0.48(0.3)
2017-2019	8	7.99(0.15)	9.04(0.16)	1.05(0.29)	5.95(0.18)	6.43(0.14)	0.48(0.3)
2017-2019	9	9.15(0.16)	10.3(0.17)	1.15(0.29)	6.82(0.19)	7.75(0.16)	0.93(0.31)
2017-2019	10	9.89(0.17)	11.3(0.18)	1.41(0.29)	7.54(0.2)	8.29(0.16)	0.75(0.31)
2017-2019	11	9.52(0.17)	10.85(0.18)	1.33(0.28)	7.6(0.21)	8.33(0.16)	0.73(0.31)
2017-2019	12	9.81(0.17)	10.9(0.18)	1.08(0.28)	7.29(0.2)	7.97(0.16)	0.68(0.29)
2020	1	11.44(0.29)	12.33(0.3)	0.89(0.46)	8.56(0.34)	9.53(0.27)	0.97(0.48)
2020	2	11.12(0.28)	11.6(0.29)	0.48(0.45)	8.54(0.34)	9.12(0.27)	0.58(0.48)
2020	3	14.8(0.32)	18.95(0.35)	4.15(0.51)	11.66(0.39)	14.86(0.33)	3.21(0.55)
2020	4	9.07(0.26)	11.21(0.29)	2.13(0.44)	6.39(0.3)	6.92(0.24)	0.53(0.45)
2020	5	9.95(0.27)	10.76(0.28)	0.81(0.44)	7.1(0.31)	7.28(0.24)	0.18(0.45)
2020	6	10.45(0.28)	12.29(0.3)	1.84(0.45)	7(0.31)	7.73(0.25)	0.73(0.46)
2020	7	7.22(0.23)	8.39(0.25)	1.17(0.41)	4.96(0.26)	4.74(0.2)	-0.22(0.41)
2020	8	10.4(0.28)	11.82(0.29)	1.42(0.45)	7.94(0.33)	8.53(0.26)	0.58(0.47)
2020	9	9.72(0.27)	10.9(0.28)	1.19(0.44)	7.66(0.32)	7.49(0.24)	-0.17(0.46)
2020	10	10.92(0.28)	12.06(0.29)	1.14(0.46)	7.74(0.32)	8.86(0.26)	1.12(0.47)
2020	11	13.27(0.31)	14.85(0.32)	1.58(0.49)	9.75(0.36)	10.87(0.29)	1.12(0.51)
2020	12	9.57(0.27)	10.97(0.28)	1.4(0.44)	6.93(0.31)	7.32(0.24)	0.39(0.46)
2021	1	12.75(0.3)	14.54(0.32)	1.79(0.48)	9.34(0.35)	10.29(0.28)	0.95(0.5)
2021	2	12.27(0.3)	13.45(0.31)	1.18(0.47)	8.26(0.33)	9.1(0.27)	0.84(0.48)
2021	3	12.9(0.3)	15.58(0.33)	2.68(0.49)	9.24(0.35)	10.83(0.29)	1.59(0.5)
2021	4	12.36(0.3)	12.89(0.3)	0.53(0.47)	9.12(0.35)	9.05(0.27)	-0.07(0.49)
2021	5	12.92(0.3)	13.55(0.31)	0.63(0.48)	9.41(0.36)	9.64(0.27)	0.23(0.49)
2021	6	10.33(0.28)	11.5(0.29)	1.17(0.45)	6.73(0.3)	8.08(0.25)	1.35(0.46)
2021	7	7.45(0.24)	7.77(0.24)	0.31(0.41)	4.99(0.26)	4.99(0.2)	0(0.42)
2021	8	10.76(0.28)	13.12(0.31)	2.36(0.47)	8.5(0.34)	8.98(0.27)	0.48(0.48)
2021	9	10.79(0.28)	13.27(0.31)	2.48(0.47)	8.63(0.34)	10.15(0.28)	1.51(0.5)
2021	10	11.6(0.29)	13.14(0.31)	1.55(0.47)	9.11(0.35)	10.26(0.28)	1.15(0.5)
2021	11	14.69(0.32)	17.69(0.35)	3(0.51)	13.19(0.41)	14.45(0.33)	1.26(0.56)
2021	12	11.24(0.29)	14.72(0.32)	3.48(0.48)	9.11(0.35)	11.23(0.29)	2.12(0.51)
2022	1	18.1(0.35)	26.65(0.4)	8.55(0.57)	18.57(0.47)	23.73(0.4)	5.16(0.65)
2022	2	20.59(0.37)	22.49(0.38)	1.9(0.57)	20.3(0.49)	21.55(0.38)	1.25(0.65)

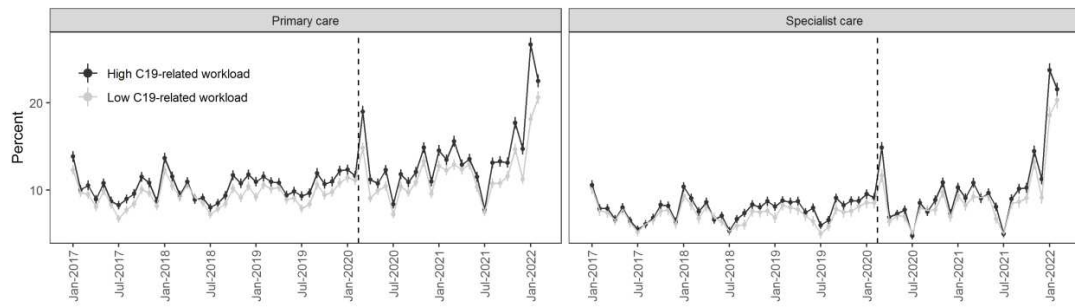


Figure A3 Monthly all-cause sick leave rates from 2017 to Feb 2022 for HCWs in health facilities with high and low COVID-19 related workload in primary and specialist care.

Table A4 Average not COVID-19 related sick leave rates in primary and specialist care for low(Q1) and high(Q5) levels of the COVID-19 related workload. Standard errors clustered on the level of individual in parentheses.

Year	Month	Primary care			Specialist care		
		Low C19-related workload	High C19-related workload	Difference	Low C19-related workload	High C19-related workload	Difference
2017-2019	1	11.24(0.18)	12.81(0.19)	1.56(0.27)	8.8(0.22)	9.68(0.18)	0.88(0.28)
2017-2019	2	10.26(0.17)	11.03(0.18)	0.77(0.25)	8.07(0.21)	8.56(0.16)	0.48(0.27)
2017-2019	3	9.61(0.17)	10.27(0.17)	0.67(0.27)	7.39(0.2)	8.01(0.16)	0.62(0.29)
2017-2019	4	9.68(0.17)	10.21(0.17)	0.53(0.28)	7.46(0.2)	8(0.16)	0.54(0.29)
2017-2019	5	9.31(0.16)	9.69(0.17)	0.38(0.28)	7.21(0.2)	7.34(0.15)	0.13(0.3)
2017-2019	6	8.65(0.16)	9.2(0.16)	0.55(0.28)	6.37(0.18)	7.17(0.15)	0.8(0.3)
2017-2019	7	7.26(0.14)	8.52(0.16)	1.26(0.29)	5.15(0.16)	5.62(0.13)	0.47(0.3)
2017-2019	8	7.98(0.15)	9.03(0.16)	1.05(0.28)	5.95(0.18)	6.42(0.14)	0.47(0.3)
2017-2019	9	9.14(0.16)	10.28(0.17)	1.14(0.29)	6.82(0.19)	7.74(0.16)	0.93(0.31)
2017-2019	10	9.87(0.17)	11.26(0.18)	1.39(0.29)	7.54(0.2)	8.29(0.16)	0.75(0.31)
2017-2019	11	9.51(0.17)	10.84(0.18)	1.33(0.28)	7.59(0.21)	8.32(0.16)	0.73(0.31)
2017-2019	12	9.8(0.17)	10.88(0.18)	1.08(0.28)	7.28(0.2)	7.96(0.16)	0.68(0.29)
2020	1	11.43(0.29)	12.32(0.3)	0.89(0.46)	8.54(0.34)	9.52(0.27)	0.98(0.48)
2020	2	11.11(0.28)	11.58(0.29)	0.47(0.45)	8.53(0.34)	9.09(0.27)	0.57(0.48)
2020	3	13.63(0.31)	15.92(0.33)	2.3(0.49)	10.64(0.37)	12.04(0.3)	1.4(0.52)
2020	4	8.87(0.26)	9.81(0.27)	0.94(0.43)	6.12(0.29)	6.06(0.22)	-0.06(0.44)
2020	5	9.89(0.27)	10.05(0.27)	0.17(0.44)	6.96(0.31)	6.87(0.23)	-0.09(0.45)
2020	6	10.36(0.28)	11.77(0.29)	1.41(0.45)	6.85(0.31)	7.37(0.24)	0.53(0.45)
2020	7	7.14(0.23)	8.1(0.25)	0.96(0.41)	4.87(0.26)	4.51(0.19)	-0.36(0.41)
2020	8	10.17(0.27)	11.29(0.29)	1.12(0.45)	7.83(0.33)	8.09(0.25)	0.26(0.47)
2020	9	9.59(0.27)	10.26(0.27)	0.67(0.44)	7.34(0.32)	6.99(0.24)	-0.35(0.45)
2020	10	10.71(0.28)	11.37(0.29)	0.67(0.45)	7.53(0.32)	8.14(0.25)	0.61(0.46)
2020	11	12.93(0.3)	12.94(0.3)	0.02(0.47)	9.37(0.35)	9.52(0.27)	0.15(0.5)
2020	12	9.17(0.26)	9.6(0.27)	0.43(0.43)	6.59(0.3)	6.53(0.23)	-0.06(0.44)
2021	1	12.34(0.3)	12.5(0.3)	0.16(0.47)	8.66(0.34)	9.01(0.27)	0.35(0.48)
2021	2	12.06(0.3)	12.02(0.29)	-0.04(0.46)	8.08(0.33)	8.36(0.26)	0.28(0.47)
2021	3	12.53(0.3)	13.39(0.31)	0.86(0.47)	9.12(0.35)	9.44(0.27)	0.32(0.49)
2021	4	11.92(0.29)	11.65(0.29)	-0.27(0.46)	8.93(0.35)	8.21(0.26)	-0.72(0.48)
2021	5	12.66(0.3)	12.89(0.3)	0.24(0.47)	9.25(0.35)	9.18(0.27)	-0.06(0.49)
2021	6	10.16(0.27)	11.28(0.29)	1.12(0.45)	6.66(0.3)	7.83(0.25)	1.17(0.45)
2021	7	7.32(0.24)	7.54(0.24)	0.21(0.41)	4.91(0.26)	4.76(0.2)	-0.16(0.41)
2021	8	10.44(0.28)	12.09(0.3)	1.65(0.46)	8.19(0.33)	8.25(0.26)	0.06(0.47)
2021	9	10.42(0.28)	12.12(0.3)	1.7(0.46)	8.2(0.33)	8.96(0.27)	0.76(0.48)
2021	10	11.13(0.29)	12.02(0.29)	0.89(0.46)	8.71(0.34)	9.32(0.27)	0.61(0.49)
2021	11	13.3(0.31)	14.77(0.32)	1.47(0.49)	11.51(0.39)	11.39(0.3)	-0.13(0.53)
2021	12	9.83(0.27)	11.29(0.29)	1.46(0.45)	7.53(0.32)	7.84(0.25)	0.32(0.46)
2022	1	13.1(0.31)	14.1(0.32)	1.01(0.49)	9.81(0.36)	10.67(0.29)	0.86(0.51)
2022	2	10.35(0.28)	11.14(0.29)	0.79(0.45)	8.5(0.34)	8.65(0.26)	0.15(0.49)

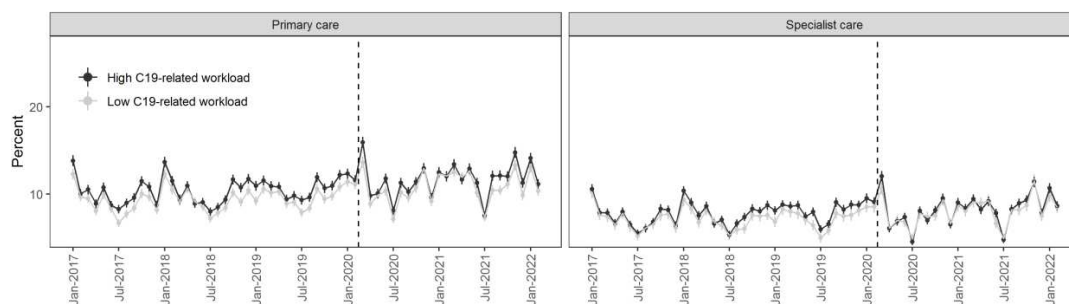


Figure A4 Monthly non-COVID-19 related sick leave rates from 2017 to Feb 2022 for HCWs in health facilities with high and low COVID-19 related workload in primary and specialist care.

Table A5 Average COVID-19 related sick leave rates in primary and specialist care for low(Q1) and high(Q5) levels of the COVID-19 related workload. Standard errors clustered on the level of individual in parentheses.

Year	Month	Primary care			Specialist care		
		Low C19-related workload	High C19-related workload	Difference	Low C19-related workload	High C19-related workload	Difference
2020	3	1.17(0.1)	3.03(0.15)	1.85(0.18)	1.02(0.12)	2.82(0.15)	1.81(0.2)
2020	4	0.21(0.04)	1.4(0.11)	1.19(0.19)	0.27(0.06)	0.85(0.09)	0.59(0.21)
2020	5	0.07(0.02)	0.71(0.08)	0.64(0.19)	0.13(0.04)	0.4(0.06)	0.27(0.2)
2020	6	0.09(0.03)	0.51(0.06)	0.42(0.19)	0.15(0.05)	0.35(0.06)	0.21(0.21)
2020	7	0.08(0.03)	0.29(0.05)	0.21(0.19)	0.09(0.04)	0.22(0.04)	0.14(0.2)
2020	8	0.23(0.04)	0.53(0.07)	0.3(0.2)	0.12(0.04)	0.44(0.06)	0.32(0.21)
2020	9	0.12(0.03)	0.65(0.07)	0.52(0.2)	0.32(0.07)	0.51(0.07)	0.18(0.22)
2020	10	0.21(0.04)	0.69(0.07)	0.47(0.2)	0.21(0.06)	0.72(0.08)	0.51(0.22)
2020	11	0.35(0.05)	1.91(0.12)	1.56(0.23)	0.38(0.08)	1.35(0.11)	0.97(0.23)
2020	12	0.4(0.06)	1.37(0.1)	0.97(0.22)	0.34(0.07)	0.79(0.08)	0.45(0.22)
2021	1	0.41(0.06)	2.04(0.13)	1.63(0.23)	0.68(0.1)	1.28(0.1)	0.6(0.24)
2021	2	0.21(0.04)	1.43(0.11)	1.22(0.22)	0.18(0.05)	0.73(0.08)	0.56(0.22)
2021	3	0.37(0.06)	2.19(0.13)	1.82(0.23)	0.12(0.04)	1.39(0.11)	1.27(0.23)
2021	4	0.44(0.06)	1.24(0.1)	0.81(0.22)	0.19(0.05)	0.84(0.08)	0.65(0.22)
2021	5	0.26(0.05)	0.65(0.07)	0.39(0.2)	0.16(0.05)	0.46(0.06)	0.3(0.21)
2021	6	0.17(0.04)	0.22(0.04)	0.05(0.19)	0.07(0.03)	0.25(0.05)	0.18(0.2)
2021	7	0.13(0.03)	0.23(0.04)	0.1(0.19)	0.07(0.03)	0.23(0.04)	0.16(0.2)
2021	8	0.32(0.05)	1.03(0.09)	0.71(0.21)	0.31(0.07)	0.73(0.08)	0.42(0.22)
2021	9	0.37(0.06)	1.16(0.1)	0.78(0.21)	0.43(0.08)	1.19(0.1)	0.76(0.23)
2021	10	0.47(0.06)	1.12(0.1)	0.65(0.22)	0.4(0.08)	0.94(0.09)	0.54(0.23)
2021	11	1.39(0.11)	2.92(0.15)	1.53(0.26)	1.67(0.16)	3.06(0.16)	1.39(0.3)
2021	12	1.4(0.11)	3.42(0.16)	2.02(0.27)	1.59(0.15)	3.39(0.17)	1.81(0.3)
2022	1	5(0.2)	12.55(0.3)	7.55(0.4)	8.76(0.34)	13.06(0.31)	4.3(0.51)
2022	2	10.25(0.28)	11.35(0.29)	1.11(0.44)	11.79(0.39)	12.9(0.31)	1.1(0.54)

(i) Median split

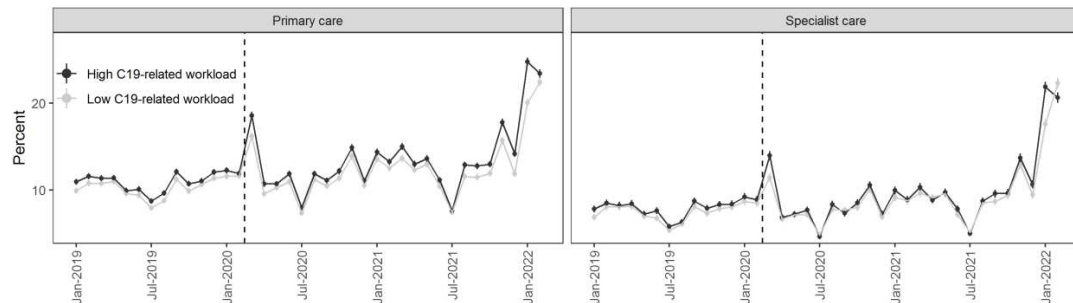
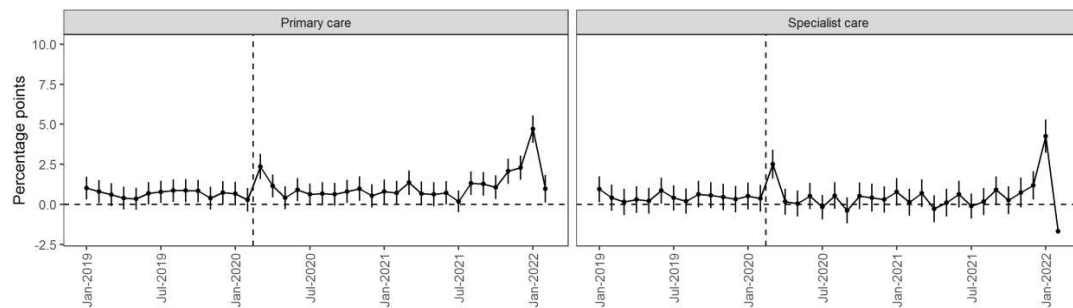
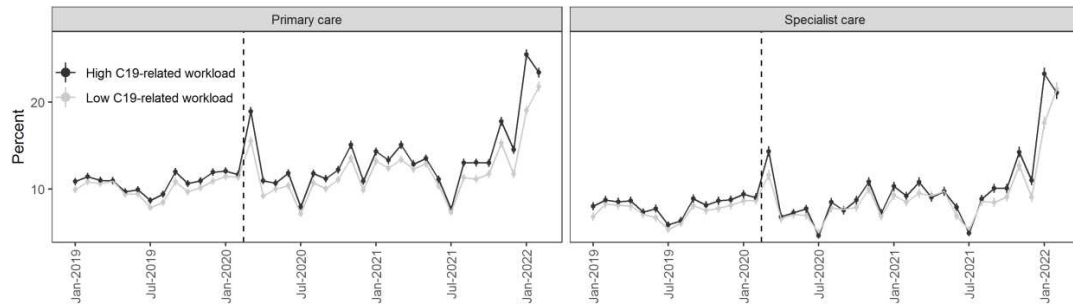
A**B**

Figure A5 Monthly COVID-19 related sick leave rates in primary and specialist care. Panel A shows monthly rates of COVID-19 related sick leave from 2019 to Feb 2022, for HCWs in health facilities with high and low COVID-19 related workload with a median split. Panels B shows the difference between them.

(ii) Tertiles

A



B

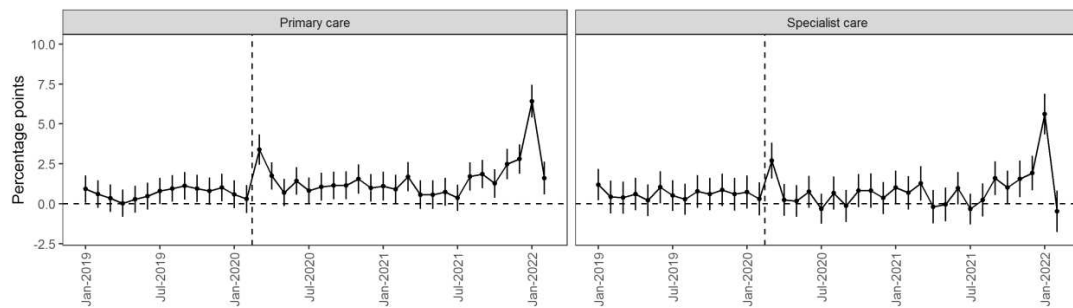


Figure A6 Monthly COVID-19 related sick leave rates in primary and specialist care. Panel A shows monthly rates of COVID-19 related sick leave from 2019 to Feb 2022, for HCWs in health facilities with high and low COVID-19 related workload (1st and 3rd tertile). Panels B shows the difference between them.