Supplemental material

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Supplementary Table S1. Associations of having been vaccinated for influenza in the last 12 months with sociodemographic characteristics and health-related factors (as compared to no vaccination) in Switzerland, 2007, 2012 and 2017, overall and among people ≥65 years old. Unadjusted and adjusted odds ratios are presented (see also Table 3).

Characteristic	All				≥65 years old			
% (95% CI)	Unadjusted OR (95% CI)	P value	Adjusted OR (95% CI)	P value	Unadjusted OR (95%	P value	Adjusted OR (95% CI)	P value
Year of survey		<0.001		<0.001		<0.001		<0.001
2007	1		1		1		1	
2012	0.84 (0.78-0.91)		0.74 (0.66-0.83)		0.68 (0.61-0.77)		0.60 (0.51-0.71)	
2017	0.86 (0.80-0.92)		0.72 (0.64-0.80)		0.62 (0.55-0.69)		0.57 (0.49-0.66)	
Age group, years		<0.001		<0.001		<0.001		<0.001
15-19	1.13 (0.88-1.46)		1.07 (0.67-1.71)		-		-	
20-29	1		1		-		-	
30-39	1.02 (0.85-1.23)		1.05 (0.77-1.44)		-		-	
40-49	1.32 (1.11-1.58)		1.32 (0.99-1.75)		-		-	
50-64	2.43 (2.08-2.85)		2.27 (1.74-2.96)		-		-	
65-75	7.47 (6.38-8.74)		6.26 (4.78-8.20)		1		1	
>75	16.24 (13.81-19.10)		12.94 (9.81.17.08)		2.18 (1.98-2.39)		2.04 (1.82-2.30)	<0.001
Sex		0.005		0.66		0.50		0.37
Male	1		1		1		1	
Female	1.09 (1.03-1.16)		0.97 (0.88-1.08)		0.96 (0.88-1.06)		1.06 (0.93-1.21)	
Pregnancy (current) [1]		0.80		0.67				
Yes	0.94 (0.60-1.48)		0.91 (0.56-1.70)		-		-	
No	1		1		-		-	
BMI group		<0.001		0.87		0.36		0.93
Underweight	1		1		1		1	
Normal	1.00 (0.83-1.19)		0.97 (0.74-1.28)		0.82 (0.60-1.10)		0.88 (0.58-1.34)	
Overweight	1.40 (1.16-1.67)		0.94 (0.72-1.25)		0.85 (0.62-1.15)		0.89 (0.59-1.36)	
Obese	1.61 (1.33-1.95)		0.99 (0.74-1.32)		0.90 (0.65-1.25)		0.91 (0.58-1.41)	
Language region		<0.001		<0.001		<0.001		
German-speaking	1		1	<0.001	1		1	0.01
French-speaking	1.19 (1.12-1.27)		1.31 (1.20-1.44)		1.26 (1.14-1.40)		1.22 (1.07-1.38)	
Italian-speaking	1.13 (1.02-1.26)		0.95 (0.82-1.12)		1.23 (1.05-1.44)		1.05 (0.86-1.29)	
Setting		<0.001		<0.001		<0.001		0.017
Urban	1.36 (1.26-1.46)		1.24 (1.12-1.38)		1.25 (1.12-1.40)		1.19 (1.03-1.37)	

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	OR	p	OR	p	OR	p	OR	p
Rural	1		1		1		1	
Citizenship		<0.001		0.80		0.38		0.199
Swiss	1		1		1		1	
Non-Swiss	0.70 (0.64-0.77)		0.98 (0.85-1.13)		0.93 (0.78-1.10)		0.87 (0.70-1.08)	
Education level		<0.001		<0.001		0.079		0.064
Primary	1		1		1		1	
Apprenticeship	0.85 (0.78-0.93)		1.00 (0.88-1.14)		1.01 (0.90-1.14)		1.05 (0.89-1.23)	
Secondary	0.81 (0.72-0.91)		1.11 (0.93-1.31)		1.18 (0.99-1.41)		1.14 (0.91-1.43)	
Tertiary	0.88 (0.80-0.96)		1.26 (1.09-1.46)		1.13 (0.98-1.29)		1.26 (1.04-1.53)	
Smoking		<0.001		<0.001		<0.001		0.009
Never smoked	1		1		1		1	
Former smoker	1.53 (1.43-1.64)		1.17 (1.05-1.28)		1.16 (1.05-1.29)		1.22 (1.07-1.39)	
Current smoker	0.66 (0.61-0.71)		0.91 (0.81-1.02)		0.89 (0.77-1.02)		1.01 (0.85-1.20)	
Self-reported health status		<0.001		<0.001		<0.001		<0.001
Very good	1		1		1		1	
Good	1.59 (1.48-1.72)		1.16 (1.03-1.31)		1.62 (1.43-1.83)		1.30 (1.10-1.53)	
Moderate	3.67 (3.34-4.03)		1.56 (1.36-1.80)		2.48 (2.15-2.86)		1.65 (1.36-2.01)	
Bad	4.54 (3.86-5.35)		2.13 (1.70-2.65)		3.20 (2.47-4.14)		2.03 (1.46-2.81)	
Very bad	4.59 (3.19-6.59)		2.07 (1.26-3.40)		2.72 (1.54-4.79)		1.79 (0.92-3.45)	
Hospital stay insurance		<0.001		<0.001		<0.001		<0.001
Basic	1		1		1		1	
Semiprivate	1.74 (1.62-1.87)		1.43 (1.30-1.59)		1.31 (1.18-1.46)		1.42 (1.24-1.63)	
Private	2.57 (2.33-2.82)		1.78 (1.56-2.03)		1.75 (1.52-2.00)		1.86 (1.56-2.21)	
Other	1.09 (0.83-1.44)		1.28 (0.86-1.92)		0.71 (0.42-1.18)		0.89 (0.50-1.58)	
Use of any alternative medicine therapy [2]		<0.001		<0.001		<0.001		<0.001
Yes	0.83 (0.77-0.89)		0.72 (0.66-0.80)		0.78 (0.71-0.87)		0.65 (0.57-0.75)	
No	1		1		1		1	
Chronic diseases [3]								
Any chronic diseases [4]	4.38 (4.08-4.70)	<0.001	1.84 (1.69-2.09)	<0.001	2.09 (1.89-2.30)	<0.001	1.68 (1.51-1.88)	<0.001
Diabetes	3.69 (3.31-4.12)	<0.001	1.54 (1.33-1.77)	<0.001	1.81 (1.56-2.09)	<0.001	1.46 (1.23-1.73)	<0.001
Lung disease	2.17 (1.86-2.53)	<0.001	1.81 (1.46-2.26)	<0.001	1.77 (1.37-2.28)	<0.001	1.59 (1.16-2.18)	0.004
Cerebrovascular disease	4.10 (2.99-5.61)	<0.001	1.12 (0.74-1.69)	0.59	1.61 (1.08-2.39)	0.02	0.91 (0.58-1.42)	0.679
Cardiovascular disease	3.50 (3.19-3.85)	<0.001	1.50 (1.34-1.68)	<0.001	1.67 (1.49-1.88)	<0.001	1.44 (1.26-1.64)	<0.001
Cancer	2.88 (2.42-3.43)	<0.001	1.22 (0.97-1.55)	0.09	1.33 (1.06-1.67)	0.013		
Medical profession [5]	1.20 (1.10-1.32)	<0.001	1.92 (1.64-2.24)	<0.001	-		-	

95% CI, 95% confidence interval; BMI, body mass index; na, not available (collinearity); OR, odds ratio

Model adjusted for all variables included in the table.

[1] Current pregnancy in women aged 15 to 49 years

[2] Use of any alternative therapy in the past 12 months (including acupuncture, traditional Chinese medicine, homeopathy, osteopathy)

[3] Current chronic disease versus no chronic disease (reference); lung diseases: asthma bronchiale, chronic bronchitis and emphysema vs. no lung disease (reference); diabetes: use of any diabetic drug vs. no diabetes (reference); cardiovascular disease: use of any heart medication vs. no cardiovascular disease (reference); all other diseases: self-reported disease vs. no disease (reference)

[4] Estimate from a separate model which included the variable "any chronic disease" instead of specific chronic diseases

[5] Any profession in the health care system (in the 2007 survey, the veterinary professions were also included in this category) vs. any other profession (reference)