

## Supplementary tables

### Physical activity and incident asthma in adults: The HUNT Study

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Supplementary Table 1. The association between physical activity at baseline and incident asthma in the Nord-Trøndelag Health Study, Norway, 1995-97 to 2006-08 (n=17,477), using a stricter definition of asthma: *i.e.* self-reported asthma and use of asthma medication at follow-up, without report of attacks of wheezing at baseline versus the reference group with no asthma and no wheeze at baseline or follow-up.

Level of physical activity			Model 1		Model 2		Model 3	
	n	cases	OR	95% CI	OR	95% CI	OR	95% CI
Inactive	862	24	Ref.		Ref.		Ref.	
Very low	3643	93	0.91	0.59-1.47	0.98	0.63-1.58	0.98	0.63-1.58
Low	4380	107	0.87	0.57-1.4	1.01	0.66-1.63	1.02	0.65-1.64
Moderate	6332	149	0.84	0.55-1.33	1.02	0.67-1.63	1.02	0.66-1.63
High	2260	53	0.84	0.52-1.39	1.11	0.68-1.85	1.11	0.68-1.85
Any activity	17477	426	0.87	0.58-1.35	1.02	0.68-1.6	1.02	0.68-1.6

The 11-year cumulative incidence of asthma was calculated according to PA.

CI: confidence interval, n: number of observations, OR: odds ratio.

#Model 1: Crude

¶Model 2: Adjusted age, BMI, sex, smoking status, education, family history of asthma, social benefit and economic difficulties.

†Model 3: Adjusted age, BMI, sex, smoking status, education, family history of asthma, social benefit, economic difficulties and allergic rhinitis.

Supplementary Table 2. The association between change in physical activity prior to baseline and incident asthma in the Nord-Trøndelag Health Study, Norway, 1984-86 to 2006-08 (n=11,736), using a stricter definition of asthma: *i.e.* self-reported asthma and use of asthma medication at follow-up, without report of attacks of wheezing at baseline versus the reference group with no asthma and no wheeze at baseline or follow-up.

Level of physical activity			Model 1 <sup>#</sup>		Model 2 <sup>¶</sup>		Model 3 <sup>+</sup>	
	n	cases	OR	95% CI	OR	95% CI	OR	95% CI
Inactive	130	4	Ref.		Ref.		Ref.	
Active survey 1 only	341	8	0.76	0.23-2.88	0.73	0.22-2.78	0.77	0.23-2.95
Active survey 2 only	738	13	0.56	0.2-2.03	0.61	0.21-2.21	0.64	0.22-2.32
Active both	10527	259	0.79	0.33-2.6	0.94	0.39-3.1	0.97	0.4-3.22
Any activity	11606	280	0.78	0.33-2.55	0.91	0.37-2.98	0.93	0.38-3.09

The 11-year cumulative incidence of asthma was calculated according to PA.

CI: confidence interval, n: number of observations, OR: odds ratio.

<sup>#</sup>Model 1: Crude

<sup>¶</sup>Model 2: Adjusted age, BMI, sex, smoking status, education, family history of asthma, social benefit and economic difficulties.

<sup>+</sup>Model 3: Adjusted age, BMI, sex, smoking status, education, family history of asthma, social benefit, economic difficulties and allergic rhinitis.

Supplementary Table 3. The association between physical activity at baseline and incident asthma in the Nord-Trøndelag Health Study, Norway, 1995-97 to 2006-08 (n=16,079), excluded participants who reported wheezing, breathlessness or cough daily during the last 12 months in HUNT2.

Level of physical activity			Model 1		Model 2		Model 3	
	n	cases	OR	95% CI	OR	95% CI	OR	95% CI
Inactive	777	25	Ref.		Ref.		Ref.	
Very low	3342	95	0.88	0.57-1.41	0.93	0.6-1.49	0.92	0.59-1.48
Low	4002	99	0.76	0.5-1.22	0.85	0.55-1.37	0.86	0.55-1.38
Moderate	5857	137	0.72	0.48-1.14	0.85	0.56-1.35	0.85	0.55-1.35
High	2101	57	0.84	0.53-1.37	1.08	0.67-1.78	1.09	0.68-1.80
Any activity	16079	413	0.78	0.53-1.21	0.90	0.60-1.40	0.90	0.60-1.40

The 11-year cumulative incidence of asthma was calculated according to PA. Incident asthma was defined from the survey questionnaires as those who did not report ever asthma at HUNT2 (1995-97) but reported asthma at HUNT3 (2006-08).

CI: confidence interval, n: number of observations, OR: odds ratio.

<sup>#</sup>Model 1: Crude

<sup>¶</sup>Model 2: Adjusted age, BMI, sex, smoking status, education, family history of asthma, social benefit and economic difficulties.

<sup>+</sup>Model 3: Adjusted age, BMI, sex, smoking status, education, family history of asthma, social benefit, economic difficulties and allergic rhinitis.

Supplementary Table 4. The association between physical activity at baseline and incident asthma in the Nord-Trøndelag Health Study, Norway, 1995-97 to 2006-08 (n=10,397), excluded participants who reported wheezing, breathlessness or daily cough during the last 12 months in HUNT2 or those reporting normally coughing in the morning or normally expectorating phlegm from their chest in the morning in HUNT1.

Level of physical activity			Model 1 <sup>#</sup>		Model 2 <sup>¶</sup>		Model 3 <sup>+</sup>	
	n	cases	OR	95% CI	OR	95% CI	OR	95% CI
Inactive	105	4	Ref.		Ref.		Ref.	
Active survey 1 only	293	5	0.44	0.11-1.8	0.44	0.11-1.82	0.49	0.12-2.05
Active survey 2 only	630	13	0.53	0.18-1.92	0.59	0.2-2.16	0.64	0.22-2.37
Active both	9369	236	0.65	0.27-2.14	0.8	0.33-2.67	0.87	0.35-2.91
Any activity	10292	254	0.64	0.27-2.1	0.77	0.31-2.56	0.83	0.33-2.79

The 11-year cumulative incidence of asthma was calculated according to PA. Incident asthma was defined from the survey questionnaires as those who did not report ever asthma at HUNT2 (1995-97) but reported asthma at HUNT3 (2006-08).

CI: confidence interval, n: number of observations, OR: odds ratio.

<sup>#</sup>Model 1: Crude

<sup>¶</sup>Model 2: Adjusted age, BMI, sex, smoking status, education, family history of asthma, social benefit and economic difficulties.

<sup>+</sup>Model 3: Adjusted age, BMI, sex, smoking status, education, family history of asthma, social benefit, economic difficulties and allergic rhinitis.