ONLINE SUPPLEMENTARY MATERIAL

Change in the symptom profile treated as asthma – two cross-sectional studies twenty years apart

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ONLINE SUPPLEMENTARY TABLE S1 Crude and age- and sex-standardised prevalence’s (%) of respiratory symptoms in ECRHS I and SOHOS study using 1993-year annual population data from Tartu, Estonia.

|                     | ECRHS I 1993/94 | SOHOS 2014/15 |
|---------------------|-----------------|---------------|
|                     | Crude          | Age- & sex-          | Crude          | Age- & sex-          |
| Breathlessness while wheezing | 7.7          | 7.7            | 6.9          | 7.2            |
| Wheeze without cold | 12.7          | 12.7           | 8.9          | 9.0            |
| Waking with chest tightness | 13.5         | 13.7           | 13.5         | 12.7           |
| Woken by attack of breathlessness | 7.8         | 7.9            | 9.8          | 9.2            |
| Woken by attack of cough | 42.0         | 42.1           | 36.9         | 34.7           |
| Attack of asthma     | 1.9           | 1.8            | 3.5          | 3.9            |
| Current asthma medication | 0.7       | 0.6            | 2.3          | 2.4            |
| Nasal allergies      | 17.7          | 17.8           | 24.0         | 23.5           |
| Current smokers      | 45.7          | 45.9           | 20.3         | 23.7           |
| Ex-smokers           | 12.0          | 12.0           | 24.0         | 20.9           |
| Asthma-related symptoms | 5.1        | 5.1            | 5.3          | 5.5            |
| Asthma-related disorder | 2.0        | 1.9            | 4.2          | 4.5            |
Sensitivity analysis

ONLINE SUPPLEMENTARY TABLE S2 Difference in prevalence (%) of respiratory symptoms for early (<4 weeks) and late (>8 weeks) questionnaire respondents.

|                    | ECRHS I < 4 weeks | ECRHS I >8 weeks | P-value | SOHOS < 4 weeks | SOHOS >8 weeks | P-value |
|--------------------|-------------------|------------------|---------|----------------|----------------|---------|
| Breathlessness while wheezing | 7.7               | 6.2              | 0.229   | 7.4            | 6.6            | 0.729   |
| Wheeze without cold       | 13.4              | 12.9             | 0.794   | 8.6            | 11.0           | 0.328   |
| Waking with chest tightness | 12.7              | 13.3             | 0.726   | 11.3           | 14.3           | 0.284   |
| Woken by attack of breathlessness | 7.6               | 9.2              | 0.221   | 10.9           | 12.8           | 0.488   |
| Woken by attack of cough  | 40.5              | 40.5             | 0.993   | 34.0           | 40.0           | 0.136   |
| Attack of asthma          | 1.4               | 1.4              | 0.929   | 4.7            | 3.1            | 0.333   |
| Current asthma medication | 0.8               | 0.1              | <0.05   | 3.5            | 2.2            | 0.351   |
| Nasal allergies           | 17.8              | 16.9             | 0.630   | 22.3           | 25.5           | 0.371   |

ONLINE SUPPLEMENTARY TABLE S3 Prevalence (%) of respiratory symptoms, attack of asthma and asthma medication use in women, men among non-smokers. *p<0.05 from Chi-square test.

|                                      | Sex          | Year | Women | Men |
|--------------------------------------|--------------|------|-------|-----|
| Breathlessness while wheezing        |              |      |       |     |
| 1993/94                              | 6.9          | 3.5  |
| 2014/15                              | 4.7          | 3.9  |
| Wheeze without cold                  |              |      |       |     |
| 1993/94                              | 6.3          | 5.3  |
| 2014/15                              | 2.6*         | 5.8  |
| Waking with chest tightness          |              |      |       |     |
| 1993/94                              | 16.1         | 8.4  |
| 2014/15                              | 10.3*        | 9.6  |
| Woken by attack of breathlessness    |              |      |       |     |
| 1993/94                              | 8.7          | 4.1  |
| 2014/15                              | 6.3          | 9.6* |
| Woken by attack of cough             |              |      |       |     |
| 1993/94                              | 37.5         | 28.3 |
| 2014/15                              | 34.4         | 26.9 |
| Attack of asthma                     |              |      |       |     |
| 1993/94                              | 2.0          | 1.7  |
| 2014/15                              | 1.8          | 3.8  |
| Current asthma medication            |              |      |       |     |
| 1993/94                              | 1.3          | 0.0  |
| 2014/15                              | 2.1          | 3.2  |
| Nasal allergies                      |              |      |       |     |
| 1993/94                              | 17.2         | 17.9 |
| 2014/15                              | 25.9*        | 20.7 |
| Asthma-related symptoms              |              |      |       |     |
| 1993/94                              | 3.3          | 2.2  |
| 2014/15                              | 1.6          | 3.9  |
| Asthma-related disorder              |              |      |       |     |
| 1993/94                              | 2.2          | 1.7  |
| 2014/15                              | 2.7          | 4.5  |

*p< 0.05 between surveys.