SUPPLEMENTARY MATERIAL

Long-term dietary fiber intake and risk of COPD: a prospective cohort study of women
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Start of follow-up

In the current study follow-up started on January 1, 2002 and ended on December 31, 2014. After examining the distribution of annual COPD incidents from 1998 to 2014 (Supplementary Figure 1), the first 4 years of follow-up (1998-2001) were lagged from the analysis, because of probable under-diagnosis at this time. The number of new diagnosis of COPD included in the analysis was 1,557 (2002-2014), instead of 1,771 (1998-2014).

Additionally, the HRs stratified by time of diagnosis were calculated (Supplementary Table 2). Despite of probable under-diagnosis in a first four years, the HRs of COPD in 1998-2014 were very similar to HRs observed in 2002-2014.

Supplementary Figure S1. Number of cases of new diagnosis of COPD cases identified between 1998 and 2014
Supplementary Table S1. Food items included for each specific dietary fiber calculation in 1987 and 1997

| Specific fiber       | 1987 FFQ                                                                 | 1997 FFQ                                                                 |
|----------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Cereal fiber         | - wholemeal bread                                                        | - granary/wholemeal bread                                                |
|                      | - white bread                                                            | - white bread                                                            |
|                      | - crisp bread                                                            | - crisp bread                                                            |
|                      | - oat meal/gruel/hot cereal                                              | - oatmeal porridge                                                       |
|                      | - cold cereal/muesli                                                     | - bran of wheat or oats                                                  |
|                      | - rice                                                                   | - other porridge/muesli                                                  |
|                      | - spaghetti                                                              | - cereals/muesli                                                         |
|                      | - pancakes/waffles                                                       | - rice                                                                   |
|                      | - rolls/crackers/cookies                                                 | - spaghetti/macaroni                                                     |
|                      |                                                                         | - pizza                                                                  |
|                      |                                                                         | - pancakes/crepes                                                        |
|                      |                                                                         | - gateau/pastry                                                          |
|                      |                                                                         | - buns and cakes                                                         |
|                      |                                                                         | - biscuits/wafers/rusk                                                  |
| Fruit fiber          | - apples/pears                                                           | - apple/pear                                                             |
|                      | - orange/citrus fruits                                                   | - orange/citrus fruits                                                   |
|                      | - banana                                                                | - banana                                                                 |
|                      | - orange/grapefruit juice                                                | - berries (fresh or frozen)                                              |
|                      | - jam/marmalade                                                          | - other fruits                                                           |
|                      | - sweet soup                                                             | - orange/grapefruit juice                                                |
| Vegetable fiber      | - root vegetables                                                        | - jam/marmalade/sauce                                                    |
|                      | - cruciferous vegetables                                                 | - stewed fruit/soup                                                      |
|                      | - tomatoes                                                               |                                                                         |
|                      | - lettuce/cucumber                                                      |                                                                         |
|                      | - spinach/kale                                                           |                                                                         |
| Other fiber sources  | - brown beans/pea soup                                                   | - beans/lentils/pea soup                                                 |
|                      | - boiled potatoes                                                        | - soy bean products                                                      |
| - fried potatoes            | - boiled potatoes          |
|---------------------------|---------------------------|
| - French fries            | - fried potatoes          |
| - chips/popcorn/nuts      | - French fries            |
|                           | - chips/popcorn           |
|                           | - nuts/almonds            |
Supplementary Figure S2. Bland-Altman plot\textsuperscript{1,2} comparing data on total dietary fiber intake collected using FFQ 1987 and FFQ 1997

References

\textsuperscript{1} Bland, J. M. & Altman, D. G. Statistical methods for assessing agreement between two methods of clinical measurement. \textit{Lancet} \textbf{1}, 307–310 (1986).

\textsuperscript{2} Bland, J. M. & Altman, D. G. Measuring agreement in method comparison studies. \textit{Stat Methods Med Res} \textbf{8}, 135–160 (1999).
Supplementary Table S2. Hazard Ratio (95% CI) of COPD stratified by calendar year of follow-up by quintiles of baseline energy-adjusted total dietary fiber, the Swedish Mammography Cohort

| Time of COPD diagnose, years | Quintiles of baseline dietary fiber intake, g/day (median) | Baseline dietary fiber intake up to 25 g/day* | Per 1-gram | P-trend |
|-----------------------------|-------------------------------------------------------------|-----------------------------------------------|------------|---------|
|                             | <17.6 (15.6)       | 17.6-20.5 (19.2) | 20.6-23.1 (21.8) | 23.2-26.4 (24.6) | ≥26.5 (29.1) |        |           |
| 1998-2001 (4 years) n=160   | No. of cases/No. women | 44/7311       | 25/7297         | 32/7294         | 27/7288       | 32/7293       |        |         |
|                             | Multivariable-adjusted HR (95% CI) | 1.00        | 0.68 (0.42-1.17) | 0.96 (0.61-1.53) | 0.81 (0.54-1.44) | 1.02 (0.64-1.63) | 0.97 (0.93-1.01) | 0.17 |
| 2002-2008 (7 years) n=739   | No. of cases/No. women | 219/7311      | 146/7288        | 149/7294        | 107/7288       | 118/7293       |        |         |
|                             | Multivariable-adjusted HR (95% CI) | 1.00        | 0.83 (0.67-1.02) | 0.91 (0.73-1.12) | 0.69 (0.54-0.87) | 0.75 (0.60-0.94) | 0.96 (0.94-0.99) | <0.001 |
| 2009-2014 (6 years) n=818   | No. of cases/No. women | 227/7311      | 168/7288        | 141/7294        | 141/7288       | 141/7293       |        |         |
|                             | Multivariable-adjusted HR (95% CI) | 1.00        | 0.86 (0.70-1.05) | 0.77 (0.62-0.96) | 0.79 (0.64-0.98) | 0.81 (0.65-1.00) | 0.97 (0.95-0.99) | 0.003 |

*Adjusted for age (continuous), education (less than high school, high school, or university), BMI (<18.5; 18.5-24.9; 25.0-29.9, or ≥30.0 kg/m²), walking or cycling (<20, 20-60, >60 min/day), smoking status and pack-years of smoking (never; past <20, 20-39, or ≥40 pack-years; or current <20, 20-39, or ≥40 pack-years), intake of energy (kcal/day, quintiles) and alcohol consumption (g/day, quintiles).