

## SUPPLEMENTARY MATERIAL

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

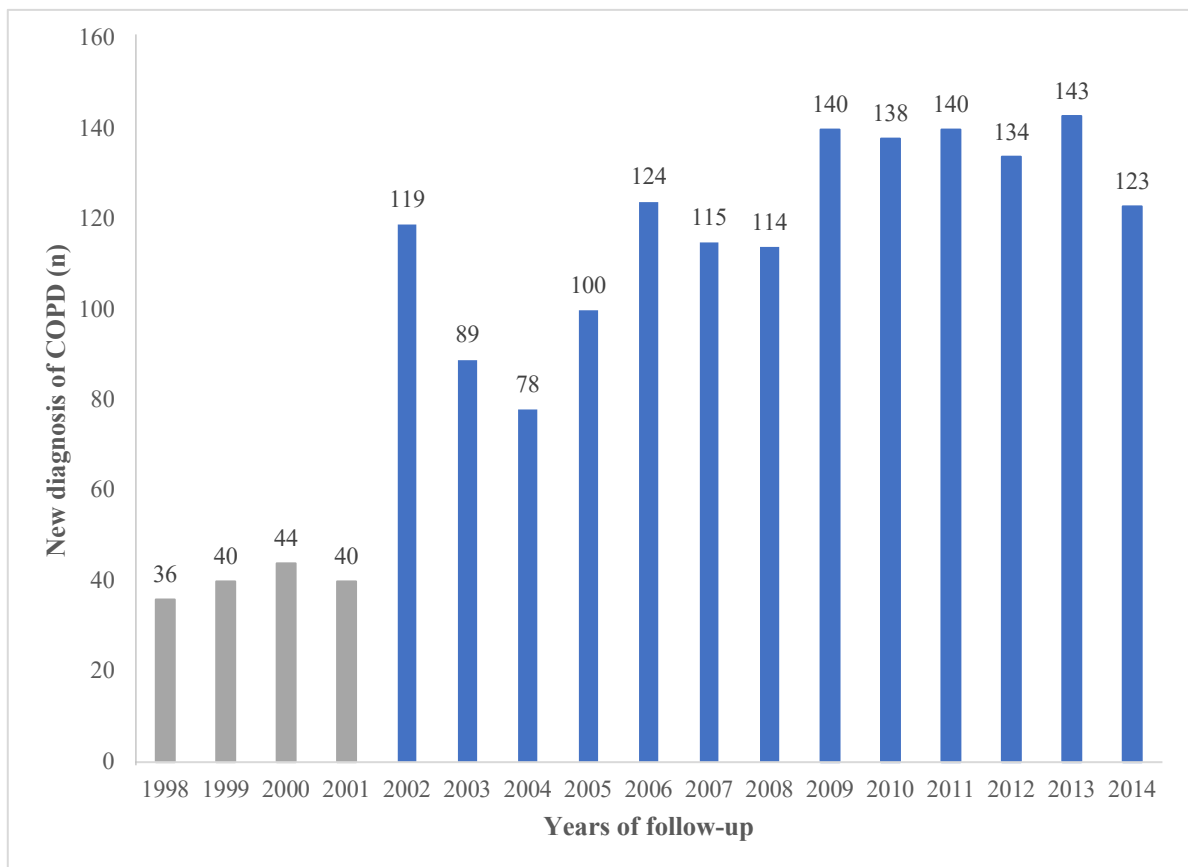
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#### Start of follow-up

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.

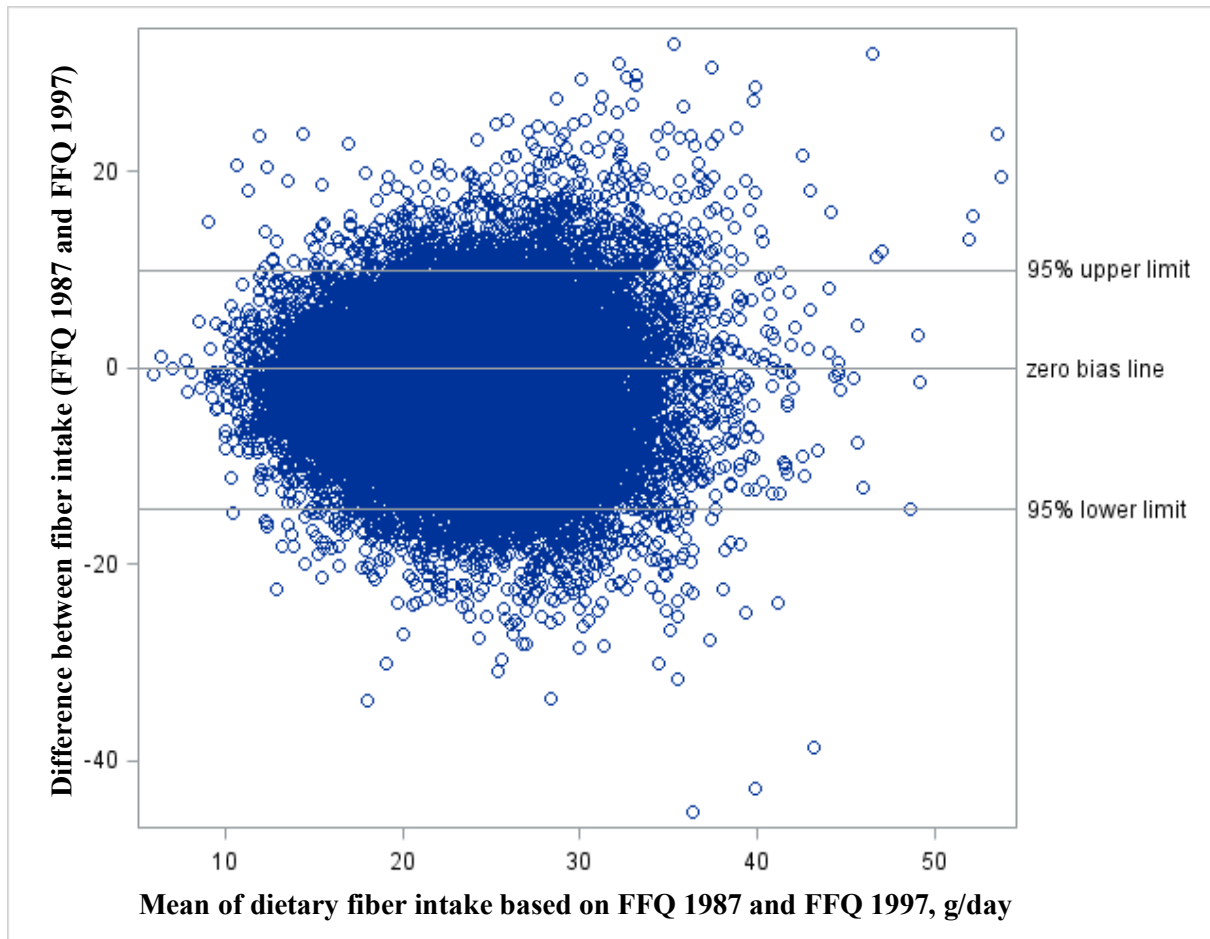


**Supplementary Figure S1.** Number of cases of new diagnosis of COPD cases identified between 1998 and 2014

**Supplementary Table S1. Food items included for each specific dietary fiber calculation in 1987 and 1997**

Specific fiber	1987 FFQ	1997 FFQ
<b>Cereal fiber</b>	<ul style="list-style-type: none"> <li>- wholemeal bread</li> <li>- white bread</li> <li>- crisp bread</li> <li>- oat meal/gruel/hot cereal</li> <li>- cold cereal/muesli</li> <li>- rice</li> <li>- spaghetti</li> <li>- pancakes/waffles</li> <li>- rolls/crackers/cookies</li> </ul>	<ul style="list-style-type: none"> <li>- granary/wholemeal bread</li> <li>- white bread</li> <li>- crisp bread</li> <li>- oatmeal porridge</li> <li>- bran of wheat or oats</li> <li>- other porridge/gruel</li> <li>- cereals/muesli</li> <li>- rice</li> <li>- spaghetti/macaroni</li> <li>- pizza</li> <li>- pancakes/crepes</li> <li>- gateau/pastries</li> <li>- buns and cakes</li> <li>- biscuits/wafers/rusks</li> </ul>
<b>Fruit fiber</b>	<ul style="list-style-type: none"> <li>- apples/pears</li> <li>- orange/citrus fruits</li> <li>- banana</li> <li>- orange/grapefruit juice</li> <li>- jam/marmalade</li> <li>- sweet soup</li> </ul>	<ul style="list-style-type: none"> <li>- apple/pear</li> <li>- orange/citrus fruits</li> <li>- banana</li> <li>- berries (fresh or frozen)</li> <li>- other fruits</li> <li>- orange/grapefruit juice</li> <li>- jam/marmalade/sauce</li> <li>- stewed fruit/soup</li> </ul>
<b>Vegetable fiber</b>	<ul style="list-style-type: none"> <li>- root vegetables</li> <li>- cruciferous vegetables</li> <li>- tomatoes</li> <li>- lettuce/cucumber</li> <li>- spinach/kale</li> </ul>	<ul style="list-style-type: none"> <li>- carrots</li> <li>- beetroots</li> <li>- cabbage</li> <li>- cauliflower</li> <li>- broccoli/Brussels sprouts</li> <li>- tomatoes</li> <li>- lettuce</li> <li>- spinach</li> <li>- peppers</li> <li>- onion/leak</li> <li>- garlic</li> <li>- green peas</li> <li>- mixed frozen vegetables</li> </ul>
<b>Other fiber sources</b>	<ul style="list-style-type: none"> <li>- brown beans/pea soup</li> <li>- boiled potatoes</li> </ul>	<ul style="list-style-type: none"> <li>- beans/lentils/pea soup</li> <li>- soy bean products</li> </ul>

	<ul style="list-style-type: none"><li>- fried potatoes</li><li>- French fries</li><li>- chips/popcorn/nuts</li></ul>	<ul style="list-style-type: none"><li>- boiled potatoes</li><li>- fried potatoes</li><li>- French fries</li><li>- chips/popcorn</li><li>- nuts/almonds</li></ul>
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**Supplementary Figure S2.** Bland-Altman plot<sup>1,2</sup> comparing data on total dietary fiber intake collected using FFQ 1987 and FFQ 1997

#### References

- <sup>1</sup> Bland, J. M. & Altman, D. G. Statistical methods for assessing agreement between two methods of clinical measurement. *Lancet* **1**, 307–310 (1986).
- <sup>2</sup> Bland, J. M. & Altman, D. G. Measuring agreement in method comparison studies. *Stat Methods Med Res* **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 <sup>a</sup>	
	<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)	Per 1-gram	P-trend
<b>1998-2001 (4 years) n=160</b>							
No. of cases/No. women	44/7311	25/7297	32/7294	27/7288	32/7293		
Multivariable-adjusted HR <sup>a</sup> (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
<b>2002-2008 (7 years) n=739</b>							
No. of cases/No. women	219/7311	146/7288	149/7294	107/7288	118/7293		
Multivariable-adjusted HR <sup>a</sup> (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
<b>2009-2014 (6 years) n=818</b>							
No. of cases/No. women	227/7311	168/7288	141/7294	141/7288	141/7293		
Multivariable-adjusted HR <sup>a</sup> (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

<sup>a</sup>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/m<sup>2</sup>), 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).