

Supplementary tables

Table S1 Baseline characteristics of included and non-included participants in this study

Baseline characteristic	Included participants (n=98,630)		Non-included participants (n=54,098)	
	Number	Percentage (%)	Number	Percentage (%)
Sex				
Men	40,555	41.1	22,833	42.2
Women	58,075	58.9	31,265	57.8
Age (years), mean \pm sd	44.1 \pm 12.2		45.7 \pm 14.6	
Education				
Low education	15,080	15.3	10,051	18.8
Medium education	52,803	53.5	27,589	51.6
High education	29,794	30.2	15,105	28.3
Unclassifiable	953	1.0	716	1.3
Smoking status				
Never smoker	45,430	46.1	22,084	46.6
Former smoker	32,351	32.8	15,923	33.6
Current smoker	20,849	21.1	9,390	19.8
Pack-year of smoking				
\leq 10	28,293	55.9	12,335	54.6
10-20	13,456	26.6	5,779	25.6
$>$ 20	8,869	17.5	4,467	19.8
Passive smoking				
Household + Workplace	2,179	2.2	1,028	2.3
Household only	20,114	20.4	8,816	19.4
Workplace only	3,475	3.5	1,518	3.3
No exposure	72,862	73.9	34,093	75.0
Asthma exposure				
Yes	5,822	5.9	914	6.5
No	92,808	94.1	13,139	93.5
Asbestos exposure				
Yes	4,968	5.0	2,649	5.1
No	93,662	95.0	49,444	94.9

Note: Numbers do not add up due to missing values.

Table S2 Characteristics of the patient with lung cancer (n = 271)

Characteristics	Number	Percentage (%)
Sex		
Men	127	46.9%
Women	144	53.1%
Age at diagnosis (years), mean \pm sd		61.1 \pm 10.2
Histological type		
Adenocarcinoma	143	52.8%
Squamous cell carcinoma	58	21.4%
Non-small cell lung cancer NOS	22	8.1%
Small cell lung carcinoma	28	10.3%
Carcinoid	13	4.8%
Other carcinomas*	7	2.6%

*Including 2 large cell neuroendocrine carcinomas, 2 adenosquamous carcinoma, 1 sarcomatoid carcinomas, 1 carcinoma in situ, 1 acinic cell carcinoma.

Table S3 Characteristics of the included participants and lung cancer cases by smoking status

Baseline characteristics	Entire cohort		Current smokers		Former smokers		Never smokers	
	No. of participants	LC incidence, no. (%)	No. of participants	LC incidence, no. (%)	No. of participants	LC incidence, no. (%)	No. of participants	LC incidence, no. (%)
Airflow limitation								
Yes	14,200	112 (7.9)	4,326	60 (13.9)	5,582	46 (8.2)	4,292	6 (1.4)
Mild	9,328	59 (6.3)	2,439	30 (12.3)	3,868	23 (5.9)	3,021	6 (2.0)
Moderate	4,653	47 (10.1)	1,799	27 (15.0)	1,620	20 (12.3)	1,234	0 (0.0)
Severe and more	219	6 (27.4)	88	3 (34.1)	94	3 (31.9)	37	0 (0.0)
No	84,430	159 (1.9)	16,523	58 (3.5)	26,769	64 (2.4)	41,138	37 (0.9)
Sex								
Men	40,555	127 (3.1)	9,316	53 (5.7)	13,416	60 (4.5)	17,763	14 (0.8)
Women	58,075	144 (2.5)	11,533	65 (5.6)	18,825	50 (2.6)	27,667	29 (1.0)
Age								
< 50 years	69,658	95 (1.4)	16,449	55 (3.3)	17,771	22 (1.2)	35,438	18 (0.5)
≥ 50 years	28,261	171 (6.1)	4,368	62 (14.2)	14,166	85 (6.0)	9,727	24 (2.5)
≥ 75 years	711	5 (7.0)	32	1 (31.3)	414	3 (7.2)	265	1 (3.8)
Education								
Low education	15,080	83 (5.5)	4,209	41 (9.7)	5,795	35 (6.0)	5,076	7 (1.4)
Medium education	52,803	128 (2.4)	12,098	59 (4.9)	17,225	51 (3.0)	23,480	18 (0.8)
High education	29,794	57 (1.9)	4,344	17 (3.9)	9,006	22 (2.4)	16,444	18 (1.1)
Unclassifiable	953	3 (3.1)	198	1 (5.1)	325	2 (6.2)	430	0 (0.0)
Passive smoking								
Household + Workplace	2,179	10 (4.6)	1,215	8 (6.6)	425	2 (4.7)	537	0 (0.0)
Household only	20,114	88 (4.4)	8,709	61 (7.0)	5,038	19 (3.8)	6,348	8 (1.3)
Workplace only	3,475	8 (2.3)	1,043	4 (3.8)	966	3 (3.1)	1,463	1 (0.7)
No exposure	72,862	165 (2.3)	9,882	45 (4.6)	25,812	86 (3.3)	37,082	34 (0.9)
Asthma status								
Yes	5,822	12 (2.1)	1,016	5 (4.9)	1,961	5 (2.5)	2,845	2 (0.7)
No	92,808	259 (2.8)	19,833	113 (5.7)	30,390	105 (3.5)	42,585	41 (1.0)
Asbestos exposure								
Yes	4,968	11 (2.2)	1,237	4 (3.2)	1,605	6 (3.7)	2,126	1 (0.5)
No	93,662	260 (2.8)	19,612	114 (5.8)	30,746	104 (3.4)	43,304	42 (1.0)

LC, lung cancer.

Table S4 Sensitivity analyses for airflow limitation and lung cancer risk

Lung function	No. of participants	Person-years	No. of LC cases	LC incidence	HR (95% CI)		
GLI-defined airflow limitation							
Airflow limitation (binary)					Model 1	Model 2	Model 3
No	86,964	841,574	192	0.2%	ref	ref	ref
Yes	11,636	111,340	78	0.7%	2.7 (2.1-3.6)	1.7 (1.3-2.3)	1.7 (1.3-2.3)
Airflow limitation (ordinary)					Model 1	Model 2	Model 3
No	86,964	841,574	192	0.2%	ref	ref	ref
Mild	7087	68,191	34	0.5%	2.1 (1.5-3.0)	1.5 (1.0-2.2)	1.5 (1.1-2.2)
Moderate	4335	41,267	38	0.9%	3.3 (2.3-4.7)	1.8 (1.3-2.6)	1.9 (1.3-2.7)
Severe and more	214	1882	6	2.8%	7.2 (3.2-16.3)	3.3 (1.4-7.5)	3.4 (1.5-7.7)
In participants aged ≥ 50 years							
Airflow limitation (binary)					Model 1	Model 2	Model 3
No	21,733	204,115	91	0.4%	ref	ref	ref
Yes	7239	66,870	85	1.2%	2.5 (1.9-3.4)	1.7 (1.3-2.4)	1.8 (1.3-2.4)
Airflow limitation (ordinary)					Model 1	Model 2	Model 3
No	21,733	204,115	91	0.4%	ref	ref	ref
Mild	4950	46,009	44	0.9%	1.9 (1.3-2.7)	1.5 (1.0-2.1)	1.5 (1.0-2.1)
Moderate	2150	19,704	37	1.7%	3.9 (2.6-5.7)	2.2 (1.5-3.3)	2.2 (1.5-3.4)
Severe and more	139	1157	4	2.9%	6.5 (2.4-17.7)	2.9 (1.1-8.0)	3.0 (1.1-8.3)

GLI, Global Lung Function Initiative. HR, hazard ratio. CI, confidence interval. LC, lung cancer.

Model 1: Cox regression model with age as time scale.

Model 2: Model 1 + adjusting for smoking status and pack-years.

Model 3: Model 2 + adjusting for sex, education, passive smoking, asthma, asbestos exposure.