Supplymentary Table 1 Demographics of the general Chinese adult population aged 20 years or older in 2015, and risk factors for COPD, by GOLD stage

	Men						Women					
	Total (n=2468)	No COPD (n=2228)	GOLD I (n=158)	GOLDII (n=70)	GOLD III (n=12)	p value	Total (n=3168)	No COPD (n=3045)	GOLD I (n=82)	GOLDII (n=35)	GOLD III (n=6)	p value
Proportion of participants (%)	100	90.3	6.4	2.8	0.4		100	96.1	2.6	1.1	0.2	
Age (years)	43.8 (14.0)	42.5 (13.5)	55.1 (11.4)	58.7 (10.8)	62.0 (9.1)	<0.001	46.9 (12.6)	46.6 (12.5)	54.0 (10.1)	57.9 (11.0)	54.3 (15.9)	<0.001
20-39	1086 (44.0%)	1067 (98.3%)	14 (1.3%)	5 (0.5%)	0 (0%)	<0.001	992 (31.3%)	980 (98.8%)	8 (0.8%)	3 (0.3%)	1 (0.1%)	<0.001
40-49	466 (18.9%)	420 (90.1%)	37 (7.9%)	8 (1.7%)	1 (0.2%)		721 (22.8%)	698 (96.8%)	17 (2.4%)	5 (0.7%)	1 (0.1%)	
50-59	502 (20.3%)	436 (86.9%)	43 (8.6%)	20 (4%)	3 (0.6%)		920 (29.0%)	878 (95.4%)	33 (3.6%)	7 (0.8%)	2 (0.2%)	
60-69	343 (13.9%)	264 (77%)	48 (14%)	26 (7.6%)	5 (1.5%)		463 (14.6%)	425 (91.8%)	21 (4.5%)	16 (3.5%)	1 (0.2%)	
≥70	22 (0.9%)	14 (63.6%)	5 (22.7%)	2 (9.1%)	1 (4.5%)		20 (0.6%)	19 (95%)	0 (0%)	1 (5%)	0 (0%)	
Resident												
Urban residents	2284 (92.5%)	2065 (90.4%)	144 (6.3%)	63 (2.8%)	12 (0.5%)		2896 (91.4%)	2780 (96%)	77 (2.7%)	33 (1.1%)	6 (0.2%)	
Rural residents	184 (7.5%)	163 (88.6%)	14 (7.6%)	7 (3.8%)	0 (0%)		272 (8.6%)	265 (97.4%)	5 (1.8%)	2 (0.7%)	0 (0%)	
Education level												
Primary school	218 (8.8%)	165 (75.7%)	29 (13.3%)	19 (8.7%)	52.3%	<0.001	483 (15.2%)	444 (91.9%)	24 (5%)	14 (2.9%)	1 (0.2%)	<0.001
Middle and high school	1499 (60.7%)	1339 (89.3%)	108 (7.2%)	45 (3%)	7 (0.5%)		1952 (61.6%)	1874 (96%)	56 (2.9%)	18 (0.9%)	4 (0.2%)	
College and higher	751 (30.4%)	724 (96.4%)	21 (2.8%)	6 (0.8%)	0 (0%)		733 (23.1%)	727 (99.2%)	2 (0.3%)	3 (0.4%)	1 (0.1%)	
Smoking status												
Yes	1732	1538 (88.8%)	128 (7.4%)	56 (3.2%)	10 (0.6%)	p=0.002	99	84 (84.8%)	9 (9.1%)	5 (5.1%)	1 (1.0%)	p<0.0001
No	736	690 (93.8%)	30 (4.1%)	14 (1.9%)	2 (0.3%)		3069	2961 (96.5%)	73 (2.4%)	30 (1.0%)	5 (0.2%)	
Smoking history												

Never	771 (31.2%)	720 (93.4%)	33 (4.3%)	16 (2.1%)	2 (0.2%)	<0.01	3072 (97.0%)	2963 (96.5%)	74 (2.4%)	30 (1%)	5 (0.2%)	<0.001
Former smoker	1468 (59.5%)	1314 (89.5%)	102 (6.9%)	44 (3%)	8 (0.5%)		72 (2.3%)	63 (87.5%)	7 (9.7%)	2 (2.8%)	0 (0%)	
Current smoker	229 (9.3%)	194 (84.7%)	23 (10%)	10 (4.4%)	2 (0.9%)		24 (0.8%)	19 (79.2%)	1 (4.2%)	3 (12.5%)	1 (4.2%)	
Passive smoking at home												
Yes	1838 (74.5%)	1662 (90.4%)	118 (6.4%)	51 (2.8%)	7 (0.4%)	p=0.778	3072 (97.0%)	2963 (96.5%)	74 (2.4%)	30 (1%)	5 (0.2%)	p=0.866
No	602 (24.4%)	542 (90%)	38 (6.3%)	18 (3%)	4 (0.7%)		96 (3.0%)	82 (85.4%)	8 (8.3%)	5 (5.2%)	1 (1%)	
Smoking exposure (pack years)												
0	803 (32.5%)	662 (82.4%)	86 (10.7%)	47 (5.9%)	8 (1%)	<0.001	32 (1.0%)	24 (75%)	1 (2.8%)	2 (6.2%)	1 (3.1%)	<0.001
1~9	471 (19.1%)	456 (96.8%)	10 (2.1%)	4 (0.8%)	1 (0.2%)		36 (1.1%)	32 (88.9%)	2 (11.1%)	3 (8.3%)	0 (0%)	
10~19	310 (12.6%)	282 (91%)	25 (8.1%)	3 (1%)	0 (0%)		18 (0.6%)	16 (88.9%)	74 (2.4%)	0 (0%)	1 (0%)	
≥20	884 (35.8%)	828 (93.7%)	37 (4.2%)	16 (1.8%)	3 (0.3%)		3082 (97.3%)	2973 (96.5%)	82 (2.6%)	30 (1%)	5 (0.2%)	
Smokers living in the home												
0	1460 (59.2%)	1320 (90.4%)	91 (6.2%)	40 (2.7%)	9 (0.6%)	p=0.704	1275 (40.2%)	1234 (96.8%)	28 (2.2%)	12 (0.9%)	1 (0.1%)	p=0.255
1	846 (34.3%)	759 (89.7%)	60 (7.1%)	26 (3.1%)	1 (0.1%)		1641 (51.8%)	1572 (95.8%)	44 (2.7%)	21 (1.3%)	4 (0.2%)	
≥2	157 (6.4%)	144 (91.7%)	7 (4.5%)	4 (2.5%)	2 (1.3%)		242 (7.6%)	230 (95%)	9 (3.7%)	2 (0.8%)	1 (0.4%)	
Chronic cough during childhood (age≤14 years)												
Frequent	55 (2.2%)	43 (78.2%)	5 (9.1%)	6 (10.9%)	1 (1.8%)	0.011	118 (3.7%)	101 (85.6%)	9 (7.6%)	7 (5.9%)	1 (0.8%)	<0.001
Sometimes	181 (7.3%)	163 (90.1%)	10 (5.5%)	6 (3.3%)	2 (1.1%)		214 (6.8%)	204 (95.3%)	6 (2.8%)	3 (1.4%)	1 (0.5%)	
Rare	2225 (90.2%)	2016 (90.6%)	143 (6.4%)	57 (2.6%)	9 (0.4%)		2827 (89.2%)	2731 (96.6%)	67 (2.4%)	25 (0.9%)	4 (0.1%)	
History of pneumonia or bronchitis during childhood												
Yes	147 (6.0%)	129 (87.7%)	8 (5.4%)	7 (4.8%)	3 (2%)	p=0.014	202 (6.4%)	182 (90.1%)	8 (4%)	10 (5%)	2 (1%)	<0.001

No	1981 (80.3%)	1805 (91.1%)	122 (6.2%)	49 (2.5%)	5(0.3%)		2575 (81.3%)	2489 (96.7%)	64 (2.5%)	20 (0.8%)	2 (0.1%)	
Unknown	337 (13.7%)	291 (86.4%)	28 (8.3%)	14 (4.2%)	4 (1.2%)		385 (12.2%)	368 (95.6%)	10 (2.6%)	5 (1.3%)	2 (0.5%)	
Parental history of respiratory diseases	2468 (100%)	2228 (0.3%)	158 (6.4%)	70 (2.8%)	12 (0.4%)	*p*=0.422	3168 (100%)	3045 (96.1%)	82 (2.6%)	35 (1.1%)	6 (0.2%)	*p*=0.242
History of spirometry test												
Yes	2441 (98.9%)	2206 (90.4%)	153 (6.3%)	70 (2.9%)	11 (0.5%)	*p*=1.000	3131 (98.8%)	3010 (96.1%)	80 (2.6%)	35 (1.1%)	6 (0.2%)	*p*=0.197
No	11 (0.4%)	10 (90.9%)	1 (9.1%)	0 (0%)	0 (0%)		21 (0.7%)	19 (90.5%)	2 (9.5%)	0 (0%)	0 (0%)	
BMI (kg/m^2)	25.16 (3.78)	25.20 (3.75)	24.82 (4.25)	25.19 (3.80)	22.70 (3.07)		24.61 (3.78)	24.61 (3.78)	24.33 (3.02)	25.55 (4.50)	26.46 (5.02)	
<18.5	58	54 (93.1%)	2 (3.4%)	0	2 (3.4%)	*p*=0.001	103	99 (96.1%)	3 (2.9%)	1 (1.0%)	0	*p*=0.300
18.5~24.9	1176	1044 (88.8%)	93 (7.9%)	31 (2.6%)	8 (0.7%)		1683	1623 (96.4%)	41 (2.4%)	16 (1.0)	3 (0.2%)	
25.0~29.9	987	903 (91.5%)	48 (4.9%)	34 (3.4%)	2 (0.2)		1126	1074 (95.4%)	35 (3.1%)	16 (1.4)	1 (0.1%)	
≥30	247	227 (91.9%)	15 (6.1%)	5 (2.0)	0		256	249 (97.3%)	3 (1.2%)	2 (0.8)	2 (0.8%)	
Biomass use												
Yes	134 (5.6%)	118 (5.5%)	11 (7.2%)	5(7.4%)	0 (0)	p=0.768	184 (6.0%)	172 (5.9%)	11 (13.8%)	1 (3.1%)	0	*p*=0.024
No	2254 (94.4%)	2040 (94.5%)	141 (92.8%)	63 (92.6%)	10 (100)		2864 (94.0%)	2758 (94.1%)	69 (86.2%)	31 (96.2%)	6 (100.00)	
Annual mean PM2.5 exposure (μg/M2)	68.07 (4.39)	68.04 (4.37)	68.23 (4.62)	68.98 (4.37)	66.18 (4.67)	P=0.039	67.99 (4.35)	67.99 (4.35)	66.74 (4.42)	68.64 (4.60)	65.17 (4.13)	*p*=0.773
<50	0	0	0	0	0		0	0	0	0	0	
50~74	2270 (92.0)	2060 (90.7)	138 (6.1)	60 (2.6)	11 (0.5)	p=0.012	2808 (88.6)	2700 (96.2)	71 (2.5)	31 (3.1)	6 (0.2)	*p*=0.771
≥75	198 (8.0)	168 (84.8)	20 (10.1)	10 (5.1)	0		360 (11.4)	345 (95.8)	11 (3.1)	4 (1.1)	0	
FEV1 (L) (%)	3.39 (0.71)	3.49 (0.64)	2.86 (0.53)	1.96 (0.43)	1.06 (0.17)	<0.001	2.48 (0.48)	2.48 (0.48)	2.08 (0.44)	1.34 (0.34)	0.94 (0.38)	<0.001

FVC (L) (%)		4.35 (0.78)	4.38 (0.76)	4.46 (0.78)	3.50 (0.72)	2.62 (0.46)	<0.001	3.08 (0.54)	3.08 (0.54)	3.13 (0.56)	2.33 (0.48)	2.13 (0.54)	<0.001
Post-bronchodilator FEV1/FVC ration, %		80.29 (8.31)	82.22 (5.55)	65.87 (3.95)	57.42 (8.95)	46.37 (7.97)	<0.001	83.20 (6.84)	83.20 (6.84)	65.76 (4.10)	58.37 (8.37)	46.85 (13.42)	<0.001
History of tuberculosis													
	Yes	42 (17.1%)	36 (85.7%)	3 (7.1%)	1 (2.4%)	2 (4.8%)	$p=0.001$	77 (2.4%)	75 (97.4%)	2 (2.6%)	0	0	$p=0.792$
	No	2421 (82.9%)	2187 (90.3%)	155 (6.4%)	69 (2.9%)	10 (0.4%)		3087 (97.6%)	2966 (96.1%)	80 (2.6%)	35 (1.1%)	6 (0.2%)	

Data are weighted and expressed as number (%) or mean (SE). GOLD stage I (mild COPD): FEV1 ≥80% predicted; GOLD stage II (moderate COPD): FEV1 ≥50% to <80% predicted; GOLD stage III (severe COPD): FEV1 ≥30% to <50% predicted; GOLD stage IV (very severe): FEV1 <30% predicted.

*Age groups 20–29 years and 30–39 years were combined because of small numbers of GOLD stage III–IV.

†One or more smokers living in the same house or apartment.

COPD: chronic obstructive pulmonary disease; FEV1: forced expiratory volume in 1 s; FVC: forced vital capacity; GOLD: Global Initiative for Chronic Obstructive Lung Disease; PM2•5: particulate matter with a diameter less than 2•5 μm.

Supplymentary Table 2: Age-specifc and age-standarised prevalence of spirometry-defined COPD in Shanxi Province adult population aged 20 years or older in 2015.

	Prevalence (%) in entire population (95%CI)						Prevalence (%) in never-smokers (95%CI)					
	Men		Women		Total		Men		Women		Total	
	Prevalence (%)	95%CI	Prevalence (%)	95%CI	Prevalence (%)	95%CI	Prevalence (%)	95%CI	Prevalence (%)	95%CI	Prevalence (%)	95%CI
Age (years)	9.7%	8.6~10.9	3.9%	3.2~4.6	6.4%	5.8~7.1	6.3%	4.6~8.1	4.1%	3.4~4.7	4.4%	3.8~5.0
20-39	1.7%	1.0~2.5	1.2%	0.5~1.9	1.5%	1.0~2.0	2.0%	0.6~3.4	1.4%	0.8~2.1	1.6%	1.0~2.2
40-49	9.9%	7.2~12.6	3.2%	1.9~4.5	5.8%	4.5~7.1	7.1%	2.6~11.6	3.7%	2.4~5.0	4.2%	2.9~5.4
50-59	13.1%	10.2~16.1	4.6%	3.2~5.9	7.6%	6.2~9.0	9.8%	4.5~15.2	5.2%	3.8~6.5	5.7%	4.3~7.0
60-69	23.0%	18.6~27.5	8.2%	5.7~10.7	14.5%	12.1~17.0	15.3%	8.5~22.1	8.8%	6.4~11.2	9.9%	7.6~12.2
≥70	36.4%	14.5~58.2	5.0%	5.5~15.5	21.4%	8.5~34.4	40.0%	28.0~100.0	13.0%	1.8~27.9	17.9%	2.7~33.0
p for trend	*p*<0.0001		*p*<0.0001		*p*<0.0001		*p*<0.0001		*p*<0.0001		*p*<0.0001	
Resident	9.7%	8.6~10.9	3.9%	3.2~4.7	6.4%	5.8~7.1	6.6%	4.9~8.4	3.5%	2.9~4.2	4.2%	3.5~4.8
Urban residents	9.6%	8.4~10.8	4.0%	3.3~4.7	6.5%	5.8~7.1	6.6%	4.8~8.5	3.6%	2.9~4.3	4.2%	3.6~4.9
Rural residents	11.4%	6.8~16.1	2.6%	0.7~4.5	6.1%	3.9~8.4	6.3%	0.2~12.5	2.6%	0.7~4.6	3.4%	1.4~5.3
p for difference	*p*=0.422		*p*=0.242		*p*=0.785		*p*=0.929		*p*=0.401		*p*=0.443	
Education level	9.7%	8.6~10.9	3.9%	3.2~4.6	6.4%	5.8~7.1	6.6%	4.9~8.4	3.5%	2.9~4.2	4.2%	3.5~4.8
Primary school	24.3%	18.6~30.1	8.1%	5.6~10.5	13.1%	10.6~15.6	13.5%	3.9~23.1	6.8%	4.4~9.1	7.5%	5.1~9.8
Middle and high school	10.7%	9.1~12.2	4.0%	3.1~4.9	6.9%	6.1~7.7	8.5%	5.8~11.1	3.9%	3.1~4.8	4.7%	3.9~5.6
College and higher	3.6%	2.3~4.9	0.8%	0.2~1.5	2.2%	1.5~3.0	3.0%	1.0~4.9	0.7%	0.1~1.3	1.4%	0.6~2.1
p for trend	*p*<0.0001		*p*<0.0001		*p*<0.0001		*p*=0.002		*p*<0.0001		*p*<0.0001	
Smoking history	9.7%	8.6~10.9	3.9%	3.2~4.6	6.4%	5.8~7.1	..	..	..	..	..	..
Never	6.6%	4.9~8.4	3.5%	2.9~4.2	4.2%	3.5~4.8	..	..	..	..	..	..
Former smoker	10.5%	8.9~12.1	12.5%	4.7~20.3	10.6%	9.0~12.1	..	..	..	..	..	..

Current smoker	15.3%	10.6~20.0	20.8%	3.3~38.4	15.8%	11.3~20.3	..	..	..	..	..	..
p for trend	p<0.0001		p<0.0001		p<0.0001		..	..	..	..	..	..
Smoking exposure (pack years)	9.4%	8.2~10.5	3.9%	3.8~5.1	6.3%	5.7~6.9	..	..	..	..	..	..
0	17.6%	14.9~20.2	25.0%	9.1~40.9	17.8%	15.2~20.4	..	..	..		..	..
1~9	3.2%	1.6~4.8	11.1%	0.3~21.9	3.7%	2.1~5.4	..	..	..	..	..	..
10~19	6.3%	3.5~9.1	11.1%	5.0~27.2	6.6%	3.8~9.3	..	..	..	..	..	..
≥20	6.3%	4.7~7.9	3.5%	2.9~4.2	4.2%	3.5~4.8	..	..	..	..	..	..
p for trend	p<0.0001		p<0.0001		p<0.0001		..	..	..	..	..	..
Smokers living in the home	..	..	..	..	..	..	9.7%	8.6~10.9	3.9%	3.2~4.5	6.4%	5.8~7.1
0	..	..	..	..	..	..	9.6%	8.1~11.1	3.2%	2.2~4.2	6.6%	5.7~7.6
1	..	..	..	..	..	..	10.3%	8.2~12.3	4.2%	3.2~5.2	6.3%	5.3~7.2
≥2	..	..	..	..	..	..	8.3%	3.9~12.6	5.0%	2.2~7.7	6.3%	3.9~8.7
p for trend	..	..	..	..	..	..	p=0.704		p=0.255		p=0.870	
Chronic cough during childhood (age≤14 years)	9.7%	8.5~10.9	3.9%	3.2~4.6	6.4%	5.8~7.1	6.6%	4.9~8.4	5.3%	4.3~6.2	5.6%	4.8~6.5
Frequent	21.8%	10.6~33.1	14.4%	8.0~20.8	16.8%	11.1~22.4	15.8%	2.3~33.8	14.5%	8.0~21.0	14.7%	8.7~20.7
Sometimes	9.9%	5.5~14.3	4.7%	1.8~7.5	7.1%	4.5~9.6	3.5%	1.4~8.4	4.8%	1.9~7.7	4.5%	2.0~7.0
Rare	9.4%	8.2~10.6	3.4%	2.7~4.1	6.0%	5.4~6.7	6.6%	4.8~8.5	4.7%	3.7~5.7	5.3%	4.4~6.2
p for trend	p=0.009		p<0.0001		p<0.0001		p=0.176		p<0.0001		p<0.0001	
History of pneumonia or bronchitis during childhood	9.1%	7.9~10.3	3.8%	3.1~4.5	6.1%	5.4~6.8	6.6%	4.9~8.4	3.6%	2.9~4.2	4.2%	3.5~4.8
Yes	12.2%	6.9~17.6	9.9%	5.7~14.1	10.9%	7.6~14.2	13.6%	3.1~24.2	9.5%	5.4~13.6	10.2%	6.4~14.1
No	8.9%	7.6~10.1	3.3%	2.6~4.0	5.8%	5.1~6.4	6.0%	4.1~7.9	3.0%	2.3~3.7	3.6%	2.9~4.3
Unknown							7.3%	2.3~12.2	4.1%	2.0~6.1	4.8%	2.9~6.7
p for difference	p=0.172		p<0.0001		p<0.0001		p=0.139		p<0.0001		p<0.0001	
Parental history of	9.7%	8.6~10.9	3.9%	3.2~4.6	6.4%	5.8~7.1	6.6%	4.9~8.4	3.5%	2.9~4.2	4.2%	3.5~4.8

respiratory diseases

History of spirometry test	9.6%	8.5~10.8	3.9%	3.2~4.6	6.4%	5.8~7.0	6.4%	4.6~8.1	3.6%	2.9~4.2	4.1%	3.5~4.8
Yes	9.6%	8.5~10.8	3.9%	3.2~4.5	6.4%	5.7~7.0	6.4%	4.7~8.2	3.5%	2.9~4.2	4.1%	3.5~4.7
No	9.1%	11.2~29.3	9.5%	4.2~23.2	9.4%	1.3~20.1	0.0%		9.5%	4.2~23.2	7.7%	3.3~18.7
p for difference (Fisher')	*p*=1.000		*p*=0.197		*p*=0.457		*p*=1.000		*p*=0.171		*p*=0.292	
BMI (kg/m²)	9.7%	8.6~10.9	3.9%	3.2~4.6	6.4%	5.8~7.1	6.6%	4.9~8.4	4.2%	3.5~4.8	0.042	3.5~4.8
<18.5 (underweight)	6.9%	0.2~13.6	3.9%	0.1~7.7	5.0%	1.6~8.4	5.6%	6.2~17.3	3.3%	0.1~6.6	0.033	0.1~6.6
18.5-24.9 (normal weight)	11.2%	9.4~13.0	3.6%	2.7~4.5	6.7%	5.8~7.6	7.2%	4.6~9.8	3.9%	3.1~4.8	0.039	3.1~4.8
25.0-29.9 (overweight)	8.5%	6.8~10.3	4.6%	3.4~5.8	6.4%	5.4~7.5	6.1%	3.4~8.8	4.7%	3.6~5.8	0.047	3.6~5.8
≥30.0(obese)	8.1%	4.7~11.5	2.7%	0.7~4.7	5.4%	3.4~7.3	6.0%	0.1~11.8	3.6%	1.5~5.7	0.036	1.5~5.7
p for trend	*p*=0.114		*p*=0.393		*p*=0.594		*p*=0.937		*p*=0.384		*p*=0.594	
Biomass use	0.861	84.7~87.5	0.039	3.2~4.6	0.4	38.7~41.3	6.6%	4.8~8.4	3.6%	2.9~4.2	4.1%	3.5~4.8
Yes	0.119	6.4~17.5	0.065	2.9~10.1	0.088	5.7~11.9	9.5%	0.3~18.8	3.6%	2.9~4.2	3.7%	3.0~4.3
No	0.905	89.3~91.7	0.037	3.0~4.4	0.419	40.6~43.3	6.4%	4.6~8.2	2.6%	1.0~6.2	6.0%	4.4~7.7
p for difference	*p*<0.0001		*p*=0.055		*p*<0.0001		*p*=0.350		*p*=1.000		*p*=0.003	
Annual mean PM2.5 exposure (μg/M²)	9.7%	8.6~10.9	3.9%	3.2~4.6	6.4%	5.8~7.1	6.6%	4.9~8.4	3.5%	2.9~4.2	4.2%	3.5~4.8
<50	0	0	0	0	0		0.0%		0.0%		0.0%	
50-74	9.3%	8.1~10.4	3.8%	3.1~4.6	6.3%	5.6~6.9	6.4%	4.6~8.2	3.5%	2.8~4.2	4.1%	3.5~4.8
≥75	15.2%	10.1~20.2	4.2%	2.1~6.2	8.1%	5.8~10.3	8.8%	1.9~15.7	3.7%	1.7~5.7	4.5%	2.5~6.5
p for trend	*p*=0.007		*p*=0.767		*p*=0.100		*p*=0.441		*p*=0.876		*p*=0.695	
History of tuberculosis	9.7%	8.6~10.9	3.9%	3.2~4.6	6.5%	5.8~7.1	6.6%	4.9~8.4	3.6%	2.9~4.2	4.2%	3.5~4.8
Yes	14.3%	3.2~25.3	2.6%	1.0~6.2	6.7%	2.2~11.3	10.2%	10.2~50.2	2.6%	1.0~6.2	4.6%	0.1~9.1
No	9.7%	8.5~10.8	3.9%	3.2~4.6	6.4%	5.8~7.1	6.5%	4.7~8.2	3.6%	2.9~4.2	4.2%	3.5~4.8
p for difference	*p*=0.317		*p*=0.553		*p*=0.903		*p*=0.138		*p*=1.000		*p*=0.784	

Supplymentary Table 3: Multiple-adjusted ORs for COPD associated with risk factors in the general adult population aged 20 years or older in Shanxi Province.

	Entire population						Never-smokers					
	Age and sex adjusted			Multivariable adjusted			Age and sex adjusted			Multivariable adjusted		
	OR		*p*	OR		*p*	OR		*p*	OR		*p*
Male sex	3.09	2.44~3.92	<0.0001	2.35	1.66~3.32	<0.0001	2.29	1.59~3.28	<0.0001	2.84	1.88~4.28	<0.0001
Age												
20-39	1.00			1.00			1.00			1.00		
40-49	0.05	0.02~0.12	<0.0001	0.07	0.03~0.17	<0.0001	0.09	0.02~0.33	<0.0001	0.12	0.03~0.51	*p*=0.004
50-59	0.25	0.11~0.55	*p*=0.001	0.28	0.12~0.63	P=0.002	0.27	0.08~0.97	*p*=0.045	0.30	0.08~1.20	*p*=0.088
60-69	0.35	0.16~0.77	*p*=0.009	0.35	0.16~0.79	P=0.012	0.40	0.11~1.39	*p*=0.149	0.46	0.19~1.74	*p*=0.25
≥70	0.68	0.31~1.49	*p*=0.336	0.64	0.26~1.45	P=0.285	0.65	0.18~2.29	*p*=0.503	0.70	0.18~2.70	*p*=0.605
p for trend	<0.0001			<0.0001			<0.0001			<0.0001		
Rural residents	0.73	0.47~1.13	*p*=0.153	1.55	0.91~2.62	P=0.107	0.67	0.36~1.27	*p*=0.221	1.22	0.58~2.55	*p*=0.604
Education level												
Primary school	1.00			1.00			1.00			1.00		
Middle and high school	3.41	2.15~5.41	<0.0001	3.61	2.21~5.88	<0.0001	3.27	1.64~6.54	*p*=0.001	4.32	2.04~9.15	<0.0001
College and higher	2.20	1.48~3.27	<0.0001	2.17	1.44~3.26	<0.0001	2.66	1.48~4.78	*p*=0.001	3.02	1.62~5.62	*p*=0.001
p for trend	<0.0001			<0.0001			*p*=0.002			*p*=0.001		
Smoking exposure (pack/year)												
0	1.00			1.00								

	OR	95% CI	p	OR	95% CI	p	OR	95% CI	p	OR	95% CI	p
1~9	0.48	0.35~0.68	<0.0001	0.58	0.405~0.836	p=0.003						
10~19	0.43	0.25~0.72	p=0.001	0.46	0.266~0.789	p=0.005						
≥20	0.71	0.45~1.11	p=0.132	0.78	0.489~1.241	p=0.293						
p for trend	<0.0001			p=0.004								
Smokers living in the home												
0	1.00			1.00			1.00			1.00		
1	0.86	0.55~1.34	P=0.501	1.09	0.67~1.77	p=0.722	0.60	0.33~1.10	P=0.1	0.62	0.32~1.19	P=0.15
≥2	1.08	0.68~1.69	P=0.755	1.12	0.69~1.82	p=0.637	0.74	0.40~1.34	P=0.316	0.73	0.39~1.38	P=0.336
p for trend	p=0.186			p=0.891			p=0.215			p=0.334		
Chronic cough during childhood (age≤14 years)												
Frequent	1.00			1.00			1.00			1.00		
Sometimes	4.68	2.96~7.39	<0.0001	5.40	3.32~8.77	<0.0001	5.81	3.40~9.93	<0.0001	5.05	2.76~9.26	<0.0001
Rare	1.29	0.83~2.00	0.264	1.29	0.81~2.05	p=0.294	1.37	0.72~2.61	0.332	1.20	0.60~2.41	p=0.613
p for trend	<0.0001			<0.0001			<0.0001			<0.0001		
History of pneumonia or bronchitis during childhood	2.00	1.26~3.18	p=0.003	1.48	0.87~2.54	p=0.152	3.28	1.77~6.06	<0.0001	2.60	1.24~5.44	p=0.011