

Table S3. Probability of Death of a COPD patient according to age, smoking status, and severity.

Age	Ex-smokers						Current smokers					
	GOLD1		GOLD2		GOLD3 or GOLD4		GOLD 1		GOLD 2		GOLD 3 or GOLD4	
	E-	E+	E-	E+	E-	E+	E-	E+	E-	E+	E-	E+
40-44	0.00148	0.00237	0.00237	0.00312	0.00282	0.00668	0.00210	0.00337	0.00337	0.00442	0.00400	0.00947
45-49	0.00231	0.00369	0.00369	0.00485	0.00439	0.01039	0.00327	0.00524	0.00524	0.00687	0.00622	0.01473
50-54	0.00365	0.00583	0.00583	0.00766	0.00693	0.01641	0.00517	0.00827	0.00827	0.01086	0.00982	0.02327
55-59	0.00556	0.00889	0.00889	0.01167	0.01056	0.02500	0.00788	0.01261	0.01261	0.01655	0.01497	0.03546
60-64	0.00862	0.01378	0.01378	0.01809	0.01637	0.03877	0.01222	0.01955	0.01955	0.02566	0.02322	0.05499
65-69	0.01366	0.02186	0.02186	0.02869	0.02596	0.06149	0.01938	0.03101	0.03101	0.04070	0.03682	0.08721
70-74	0.02219	0.03551	0.03551	0.04661	0.04217	0.09987	0.03148	0.05036	0.05036	0.06610	0.05981	0.14165
75-79	0.03795	0.06072	0.06072	0.07969	0.07210	0.17076	0.05382	0.08612	0.08612	0.11303	0.10226	0.24221
80-84	0.06447	0.10315	0.10315	0.13539	0.12249	0.29011	0.09144	0.14631	0.14631	0.19203	0.17374	0.41149
85	0.09968	0.15949	0.15949	0.20933	0.18940	0.44857	0.14139	0.22622	0.22622	0.29691	0.26863	0.63624
86	0.13489	0.21583	0.21583	0.28328	0.25630	0.60703	0.19133	0.30613	0.30613	0.40179	0.36353	0.86099
87	0.17011	0.27217	0.27217	0.35723	0.32320	0.76548	0.24127	0.38604	0.38604	0.50668	0.45842	1
88	0.20532	0.32851	0.32851	0.43117	0.39011	0.92394	0.29122	0.46595	0.46595	0.61156	0.55332	1
89	0.24053	0.38485	0.38485	0.50512	0.45701	1	0.34116	0.54586	0.54586	0.71644	0.64821	1
90	0.27575	0.44119	0.44119	0.57907	0.52392	1	0.39111	0.62577	0.62577	0.82133	0.74311	1
91	0.31096	0.49753	0.49753	0.65301	0.59082	1	0.44105	0.70569	0.70569	0.92621	0.83800	1
92	0.34617	0.55387	0.55387	0.72696	0.65773	1	0.49100	0.78560	0.78560	1	0.93290	1
93	0.38138	0.61021	0.61021	0.80091	0.72463	1	0.54094	0.86551	0.86551	1	1	1
94	0.41660	0.66655	0.66655	0.87485	0.79153	1	0.59089	0.94542	0.94542	1	1	1
95	0.45181	0.72289	0.72289	0.94880	0.85844	1	0.64083	1	1	1	1	1
96	0.48702	0.77924	0.77924	1	0.92534	1	0.69078	1	1	1	1	1
97	0.52223	0.83558	0.83558	1	0.99225	1	0.74072	1	1	1	1	1
98	0.55745	0.89192	0.89192	1	1	1	0.79067	1	1	1	1	1
99	0.59266	0.94826	0.94826	1	1	1	0.84061	1	1	1	1	1
100	0.62787	1	1	1	1	1	0.89055	1	1	1	1	1
101	0.66309	1	1	1	1	1	0.94050	1	1	1	1	1
102	0.69830	1	1	1	1	1	0.99044	1	1	1	1	1
103	0.73351	1	1	1	1	1	1	1	1	1	1	1
104	0.76872	1	1	1	1	1	1	1	1	1	1	1
105	0.80394	1	1	1	1	1	1	1	1	1	1	1
106	0.83915	1	1	1	1	1	1	1	1	1	1	1
107	0.87436	1	1	1	1	1	1	1	1	1	1	1
108	0.90957	1	1	1	1	1	1	1	1	1	1	1
109	0.94479	1	1	1	1	1	1	1	1	1	1	1
110	1	1	1	1	1	1	1	1	1	1	1	1

Definition of abbreviations: E- and E+ correspond to exacerbation-free patients and to patients with at least one exacerbation, respectively.

First, based on all-cause mortality data (codes A00-Y89) for the UK general population in 2007, derived from the Eurostat database [1], a table of death probability by age (40 to 110 years) was built. To take into account the excess mortality associated with COPD, we used data from Mannino et al [2], who provide such data for GOLD1, GOLD2 and GOLD3/4 patients, taking exacerbations into account: the relative risks of death were 1.0 (GOLD1), 1.6 (GOLD2) and 1.9 (GOLD3 and GOLD4) for exacerbation-free patients, and 1.6 (GOLD1), 2.1 (GOLD2) and 4.5 (GOLD3 and GOLD4) for patients with exacerbation(s). Finally, the specific mortality table used in our simulations took smoking status into account: based on the report by Ekberg-Aronsson et al [3], the probability of death for COPD ex-smokers and current smokers was considered to be respectively 1.5 and 2.0 times higher than that of never smokers.

References

- 1 Eurostat (2007) European statistic database. Available: http://epp.eurostat.ec.europa.eu/portal/page/portal/health/public_health/database. Accessed July 2010.
- 2 Mannino DM, Doherty DE, Sonia Buist A (2006) Global Initiative on Obstructive Lung Disease (GOLD) classification of lung disease and mortality: findings from the Atherosclerosis Risk in Communities (ARIC) study. *Respir Med* 100: 115-122.
- 3 Ekberg-Aronsson M, Pehrsson K, Nilsson JA, Nilsson PM, Lofdahl CG (2005) Mortality in GOLD stages of COPD and its dependence on symptoms of chronic bronchitis. *Respir Res* 6: 98.