Supplemental Digital Content 3. Hazard Ratios for 3 Class (0 vs. 1 vs. 2-4)a Change in Dyspnea Variable Between 1975-1981 for Mortality in Pairwise Setting.

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| --- | --- | --- | --- |
|  | **Basic age** **adjusted** | **Pack years** **smoked 81 adj.** | **Fully** **adjusted b**  |
|  | **HR (95%CI)** | **HR (95%CI)** | **HR (95%CI)** |
| **All**  | **n = 21 076** | **n=20 463** | **n=19 876** |
|  Increase c | 1.25 (1.06-1.49) | 1.19 (0.991-1.43) | 1.21 (0.999-1.47) |
|  Decrease d  | 1.39 (1.17-1.66) | 1.30 (1.08-1.57) | 1.28 (1.05-1.56) |
|  Persistent mild dyspnea | 1.30 (1.08-1.56) | 1.27 (1.04-1.55) | 1.23 (0.995-1.52) |
|  Persistent severe dyspnea | 2.09 (1.60-2.73) | 2.01 (1.51-2.68) | 2.09 (1.53-2.87) |
| **No lung disease or cough 81 e** | **n=17 937** | **n=17 443** | **n=17 003** |
|  Increase  | 1.17 (0.94-1.47) | 1.09 (0.86-1.38) | 1.09 (0.85-1.40) |
|  Decrease  | 1.30 (1.05-1.62) | 1.18 (0.94-1.49) | 1.15 (0.90-1.47) |
|  Persistent mild dyspnea | 1.21 (0.96-1.53) | 1.20 (0.93-1.54) | 1.17 (0.90-1.53) |
|  Persistent severe dyspnea | 2.26 (1.44-3.52) | 2.12 (1.32-3.41) | 2.10 (1.27-3.47) |
| **Healthy f** | **n=14 375** | **n=14 033** | **n=13 771** |
|  Increase  | 1.24 (0.89-1.75) | 1.20 (0.84-1.71) | 1.11 (0.76-1.62) |
|  Decrease  | 1.50 (1.08-2.09) | 1.42 (1.00-2.00) | 1.34 (0.94-1.91) |
|  Persistent mild dyspnea | 1.48 (1.04-2.12) | 1.47 (1.00-2.16) | 1.43 (0.95-2.16) |
|  Persistent severe dyspnea | 7.52 (1.68-33.8) | 6.43 (1.39-29.9) | 9.63 (1.22-76.1) |
| **DZ** | **n=13 339** | **n=12 945** | **n=12 578** |
|  Increase  | 1.36 (1.09-1.69) | 1.31 (1.04-1.64) | 1.26 (0.99-1.61) |
|  Decrease  | 1.48 (1.18-1.84) | 1.37 (1.08-1.73) | 1.34 (1.05-1.72) |
|  Persistent mild dyspnea | 1.34 (1.06-1.68) | 1.28 (1.00-1.63) | 1.18 (0.90-1.53) |
|  Persistent severe dyspnea | 2.13 (1.55-2.94) | 1.98 (1.40-2.79) | 2.14 (1.47-3.12) |
| **DZ & Healthy in 1981**  | **n=9 168** | **n=8 951** | **n=8 783** |
|  Increase  | 1.31 (0.85-2.02) | 1.21 (0.78-1.88) | 1.09 (0.68-1.74) |
|  Decrease  | 1.61 (1.07-2.42) | 1.50 (0.98-2.28) | 1.40 (0.91-2.17) |
|  Persistent mild dyspnea | 1.24 (0.80-1.95) | 1.17 (0.72-1.89) | 1.12 (0.67-1.88) |
|  Persistent severe dyspnea | 7.01 (1.76-32.4) | 6.23 (1.29-30.0) | 8.73 (1.07-71.3) |
| **MZ** | **n=6 239** | **n=6 070** | **n=5 902** |
|  Increase  | 1.00 (0.72-1.39) | 1.01 (0.71-1.42) | 1.09 (0.75-1.58) |
|  Decrease  | 1.35 (0.95-1.90) | 1.30 (0.90-1.87) | 1.28 (0.88-1.88) |
|  Persistent mild dyspnea | 1.15 (0.81-1.64) | 1.29 (0.88-1.90) | 1.40 (0.92-2.11) |
|  Persistent severe dyspnea | 1.76 (0.96-3.24) | 1.88 (0.98-3.60) | 1.50 (0.72-3.10) |
| **MZ & Healthy in 1981**  | **n= 4 281** | **n=4 180** | **n=4 108** |
|  Increase  | 1.03 (0.56-1.90) | 1.16 (0.60-2.25) | 1.12 (0.54-2.34) |
|  Decrease  | 1.48 (0.77-2.82) | 1.27 (0.62-2.58) | 1.26 (0.60-2.64) |
|  Persistent mild dyspnea | 2.08 (1.06-4.09) | 2.32 (1.11-4.82) | 2.50 (1.13-5.52) |
|  Persistent severe dyspnea | No result | No result | No result |

a Reference group had no dyspnea symptoms in 1975 or 1981
b Fully adjusted: adjusted for pack years smoked in 1981, physical activity met index 1981, BMI 1981, social class 1975 and alcohol grams per day 1981
c Increase means no dyspnea symptoms or level 1 symptoms in 1975, but increased symptoms to level 1 or higher levels in 1981
d Decrease means dyspnea any level symptoms in 1975, but decreased symptoms to level 1 or to no symptoms in 1981
e No reported bronchitis, emphysema or asthma or persistent cough in 1981
f Did not report any illnesses in 1981, apparently healthy