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| |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Supplemental Table 1. Risk Estimates for Lung Cancer in Chrysotile Cohorts Stratified by Exposure Group** | | | | | | | |  | |  |  | |  | |  |  |  |  | | Authors | Year | | Industry | | Disease Classification | Cumulative Exposure (f/cc-years) | Risk Estimate (95%CI)c | Total Number of Cases | | Lacquet et al. | 1980 | | Cement Manufacturing: (Belgium) | | Respiratory cancer | 0 - 49 | SMR: 1.16 (0.43 - 2.53) | 6 | | 50 - 99 | SMR: 1.23 (0.25 - 3.61) | 3 | | 100 - 199 | SMR: 1.09 (0.35 - 2.54) | 5 | | 200 - 399 | SMR: 0.54 (0.15 - 1.37) | 4 | | 400 - 799 | SMR: 0.51 (0.01 - 2.86) | 1 | | 800 - 1,599 | SMR: 3.51 (0.42 - 12.67) | 2 | | 1,600 - 3,200a | - | 0 | | Berry & Newhouse | 1983 | | Friction Materials Manufacturing: (United Kingdom) | | Lung cancer | 0 - 9 | OR: 1.00 | 50 | | 10 - 19 | OR: 0.79 (0.48 - 1.29) | 37 | | 50 - 99 | OR: 0.86 (0.42 - 1.74) | 13 | | 100 - 356a | OR: 0.88 (0.30 - 2.55) | 5 | | McDonald et al. | 1983 | | Textiles: (Pennsylvania) | | Malignant neoplasms respiratory | <30 | SMR: 0.67 (0.41 - 1.02) | 21 | | 30 - 60 | SMR: 0.84 (0.27 - 1.95) | 5 | | 60 - 120 | SMR: 1.56 (0.75 - 2.87) | 10 | | 120 - 240a | SMR: 1.60 (0.59 - 3.48) | 6 | | ≥ 240 | SMR: 4.16 (2.08 - 7.45) | 11 | | McDonald et al. | 1984 | | Friction Materials Manufacturing: (Connecticut) | | Malignant neoplasms respiratory | < 14 | SMR: 1.67 (1.26 - 2.18)b | 55 | | 14 - 28 | SMR: 1.02 (0.37 - 2.21) | 6 | | 28 - 56 | SMR: 1.05 (0.34 - 2.46) | 5 | | 56 - 112 | SMR: 1.63 (0.60 - 3.54) | 6 | | ≥ 112a | SMR: 0.55 (0.01 - 3.08) | 1 | | Authors | Year | | Industry | | Disease Classification | Cumulative Exposure (f/cc-years) | Risk Estimate (95%CI)c | Total Number of Cases | | Peto et al. | 1985 | | Textiles:  (Rochdale) | | Lung cancer | < 28.6 | SMR: 1.15 (0.80 - 1.61) | 34 | | 28.6 - 57.1 | SMR: 1.04 (0.45 - 2.06) | 8 | | 57.1 - 85.7 | SMR: 1.67 (0.83 - 2.98) | 11 | | 85.7 - 114.3a | SMR: 1.06 (0.39 - 2.31) | 6 | | 114.3 - 142.9 | SMR: 2.33 (1.12 - 4.29) | 10 | | ≥ 142.9 | SMR: 2.22 (1.42 - 3.30) | 24 | | Hughes et al. | 1987 | | Cement Manufacturing:  Plant 1 (New Orleans) | | Respiratory malignancies | < 8.4 | SMR: 1.04 (0.21 - 3.02) | 3 | | 8.4 - 33.6 | SMR: 1.12 (0.51 - 2.14) | 9 | | 33.6 - 68.6 | SMR: 0.55 (0.07 - 1.95) | 2 | | 68.6 - 140 | SMR: 0.78 (0.16 - 2.31) | 3 | | ≥ 140a | SMR: 1.23 (0.40 - 2.85) | 5 | | Hughes et al. | 1987 | | Cement Manufacturing:  Plant 2 (New Orleans) | | Respiratory malignancies | < 4.6 | SMR: 0.91 (0.39 - 1.79) | 8 | | 4.6 - 7 | SMR: 1.14 (0.49 - 2.25) | 8 | | 7 - 33.6 | SMR: 1.54 (0.89 - 2.45) | 17 | | 33.6 - 70 | SMR: 1.71 (0.56 - 4.02) | 5 | | ≥ 70a | SMR: 1.56 (0.42 - 3.94) | 4 | | Neuberger & Kundi | 1990 | | Cement Manufacturing: (Austria) | | Lung cancer | ≤ 25 | SMR: 1.26 (0.83 - 1.95) | 25 | | > 25a | SMR: 0.96 (0.64 - 1.43) | 24 | | McDonald et al. | 1993 | | Mining and Milling: Asbestos Mine and Mill (Quebec) | | Malignant neoplasms of the lung | < 94.2 | SMR: 1.49 (1.14 - 1.91)b | 61 | | 94.2 - 314 | SMR: 1.29 (0.86 - 1.86) | 28 | | 314 - 942 | SMR: 1.36 (0.85 - 2.06) | 22 | | ≥ 942a | SMR: 1.55 (0.97 - 2.35) | 22 | |  | |  | | | Authors | Year | | Industry | | Disease Classification | Cumulative Exposure (f/cc-years) | Risk Estimate (95%CI)c | Total Number of Cases | | McDonald et al. | 1993 | | Mining and Milling:  Thetford Mines  (Quebec) | | Malignant neoplasms of the lung | < 94.2 | SMR: 1.01 (0.71 - 1.39) | 37 | | 94.2 - 314 | SMR: 1.73 (1.21 - 2.40)b | 36 | | 314 - 942a | SMR: 1.05 (0.70 - 1.52) | 28 | | ≥ 942 | SMR: 1.89 (1.42 - 2.47) | 54 | | Liddell & Armstrong | 2002 | | Mining and Milling: (Quebec) | | Lung cancer (non-smokers) | < 4.71 | SMR: 0.38 (0.12 - 0.89) | 5 | | 4.71 - < 15.7 | SMR: 0.45 (0.15 - 1.04) | 5 | | 15.7 - < 47.1 | SMR: 0.14 (0.02 - 0.49) | 2 | | 47.1 - < 94.2 | SMR: 0.23 (0.03 - 0.83) | 2 | | 94.2 - < 188.4 | SMR: 0.46 (0.12 - 1.17) | 4 | | 188.4 - < 314 | SMR: 0.12 (0.003 - 0.65) | 1 | | 314 - < 549.5 | SMR: 1.10 (0.50 - 2.09) | 9 | | 549.5 - < 942 | SMR: 0.47 (0.13 - 1.21) | 4 | | 942 - < 1,884 | SMR: 0.56 (0.15 - 1.44) | 4 | | ≥ 1,884a | SMR: 1.12 (0.48 - 2.21) | 8 | | Liddell & Armstrong | 2002 | | Mining and Milling: (Quebec) | | Lung cancer (ex-smokers) | < 4.71 | SMR: 0.61 (0.20 - 1.42) | 5 | | 4.71 - < 15.7 | SMR: 0.74 (0.30 - 1.53) | 7 | | 15.7 - < 47.1 | SMR: 0.37 (0.10 - 0.94) | 4 | | 47.1 - < 94.2 | SMR: 0.42 (0.12 - 1.08) | 4 | | 94.2 - < 188.4 | SMR: 0.28 (0.06 - 0.82) | 3 | | 188.4 - < 314 | SMR: 0.83 (0.33 - 1.71) | 7 | | 314 - < 549.5 | SMR: 0.43 (0.12 - 1.09) | 4 | | 549.5 - < 942 | SMR: 0.98 (0.45 - 1.86) | 9 | | 942 - < 1,884 | SMR: 0.75 (0.30 - 1.54) | 7 | | ≥ 1,884a | SMR: 1.24 (0.60 - 2.28) | 10 | | Authors | Year | | Industry | | Disease Classification | Cumulative Exposure (f/cc-years) | Risk Estimate (95%CI)c | Total Number of Cases | | Hein et al. | 2007 | | Textiles:  (South Carolina) | | Lung cancer (10 year lag) | < 1.5 | RR: 1.00 | 34 | | 1.5 - < 5 | RR: 1.00 (0.62 - 1.62) | 33 | | 5 - < 15 | RR: 1.37 (0.85 - 2.21) | 34 | | 15 - < 60a | RR: 1.61 (1.00 - 2.59) | 35 | | 60 - < 120 | RR: 3.20 (1.99 - 5.14) | 37 | | ≥ 120 | RR: 4.91 (2.88 - 8.35) | 25 | | Pira et al. | 2009 | | Mining and Milling: (Italy) | | Lung cancer | < 100 | SMR: 0.83 (0.38 - 1.58) | 9 | | 100 - < 400 | SMR: 1.57 (0.91 - 2.51) | 17 | | ≥ 400a | SMR: 1.37 (0.82 - 2.14) | 19 | | Loomis et al. | 2009 | | Textiles:  (North Carolina) | | Lung cancer  (30 year lag) | < 2.3 | RR: 1.00 | 65 | | 2.5 - < 11.5a | RR: 1.32 (0.82 - 2.14) | 27 | | 11.5 - < 34.8 | RR: 2.09 (1.32 - 3.29) | 32 | | 34.8 - <152.7 | RR: 1.40 (0.87 - 2.24) | 29 | | > 152.7 | RR: 2.13 (1.30 - 3.49) | 28 | | Deng et al. | 2012 | | Textiles:  (China) | | Cancer of the trachea, bronchus and lung | 8.8 - < 36 | RR: 1.30 (0.34 - 4.92) | NA | | 36 - < 40.4 | RR: 2.61 (0.57 - 12.05) | NA | | 40.4 - < 43.4 | RR: 2.46 (0.52 - 11.57) | NA | | 43.4 - < 49.5a | RR: 2.94 (0.70 - 12.31) | NA | | 49.5 - < 59 | RR: 5.37 (1.42 - 20.34) | NA | | 59 - < 160 | RR: 6.05 (1.66 - 22.06) | NA | | 160 - < 462 | RR: 7.85 (2.33 - 26.45) | NA | | ≥ 462 | RR: 9.68 (2.76 - 33.93) | NA | | Authors | Year | | Industry | | Disease Classification | Cumulative Exposure (f/cc-years) | Risk Estimate (95%CI)c | Total Number of Cases | | Wang et al. | 2013 | | Mining:  (China) | | Cancer of the trachea, bronchus and other thoracic neoplasms (smokers and non-smokers combined) | 1.1 - < 20a | SMR: 1.04 (0.38 - 2.27) | 6 | | 20 - < 100 | SMR: 4.25 (2.20 - 7.43) | 12 | | 100 - < 450 | SMR: 10.82 (6.31 - 17.33) | 17 | | ≥ 450 | SMR: 17.07 (10.57 - 26.10) | 21 | | a = NOAEL; b = Lack of apparent exposure-response; marginally significant increase observed in this exposure group, however, no statistically significant increase observed in higher exposure groups; c = When not reported in the studies considered, the 95% confidence intervals (CIs) for SMRs and ORs were calculated using Fisher's exact method with OpenEpi software. The risk estimates and 95% CIs for Deng et al. (2012) were estimated using reported beta estimates and standard errors from Poisson regression models. | | | | | | | | | |