Supplemental Material: Chapter 10 (Cancer) Integrated Science Assessment for Particulate Matter

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Contents

Table S10-1. Corresponding data for Figure 10-3

Supplemental Table for Chapter 10 (Cancer)

Table S10-1. Corresponding data for Figure 10-3

Study	Cohort (Location)	Follow-up Years	Qualifier	Hazard Ratio (95% CI)
Mortality – Studies Evaluated in 2004 PM AQCD and 2009 PM ISA				
Krewski et al. (2009)	ACS (Re-analysis) (U.S.)	1982-2000	---	1.05 (1.02, 1.09)
Laden et al. (2006)	HSC (6 U.S. cities)	1974-1998	---	1.13 (0.98, 1.30)
McDonnell et al. (2000)	AHSMOG (California)	1973-1977	Men	1.18 (0.89, 1.57)
Brunekreef et al. (2009)[a]	NLCS (Netherlands)	1987-1996	Full Cohort	1.03 (0.91, 1.17)
Brunekreef et al. (2009)[a]	NLCS (Netherlands)	1987-1996	Case Cohort	0.93 (0.72, 1.21)
Mortality – Recent Studies				
†Thurston et al. (2013)	ACS-CPS II (U.S.)	1982-2004	---	1.03 (0.99, 1.07)
†Turner et al. (2016)	ACS-CPS II (U.S.)	1982-2004	---	1.04 (1.01, 1.08)
†Hart et al. (2011)	TrIPS (U.S.)	1985-2000	Men	1.03 (0.94, 1.12)
†Lepeule et al. (2012)	HSC (6 U.S. cities)	1974-2009	---	1.17 (1.03, 1.32)
†Lipsett et al. (2011)	CTS (California)	2000-2005	Women	0.97 (0.84, 1.13)
†Jerrett et al. (2013)	ACS-CPS II (California)	1982-2000	---	1.06 (0.96, 1.17)
†Crouse et al. (2015)	CanCHEC (Canada)	1991-2006	---	1.06 (1.04, 1.09)
†Pinault et al. (2016)	CCHS (Canada)	2000-2011	---	1.08 (0.99, 1.18)
†Villeneuve et al. (2015)	CNBSS (Canada)	1980-2005	Women	0.98 (0.89, 1.09)

Study	Cohort (Location)	Follow-up Years	Qualifier	Hazard Ratio (95% CI)
†Weichenthal et al. (2016)	CanCHEC (Ontario)	1991-2009	---	1.09 (0.97, 1.22)
†Carey et al. (2013)	National English (United Kingdom)	2003-2007	---	1.11 (0.97, 1.25)
†Cesaroni et al. (2013)	RoLS (Rome, Italy)	2001-2010	---	1.02 (1.00, 1.05)
Lung Cancer Incidence – Studies Evaluated in 2004 PM AQCD and 2009 PM ISA				
Brunekreef et al. (2009)[b]	NLCS (Netherlands)	1987-1996	Full Cohort	0.90 (0.79, 1.02)
Brunekreef et al. (2009)[b]	NLCS (Netherlands)	1987-1996	Case Cohort	0.82 (0.64, 1.05)
Lung Cancer Incidence – Recent Studies				
†Gharibvand et al. (2016)	AHSMOG-2 (U.S.)	1987-1996	---	1.20 (1.02, 1.42)
†Puett et al. (2014)	NHS (U.S.)	1994-2010	Women	1.03 (0.95, 1.12)
†Hystad et al. (2013)	NECSS (Canada)	1994-1997	---	1.14 (0.97, 1.33)
†Tomczak et al. (2016)	CNBSS (Canada)	1980-2004	Women	1.16 (1.05, 1.28)
†Raaschou-Nielsen et al. (2013)	ESCAPE (Europe)	1990s	---	1.18 (0.96, 1.46)
†Hart et al. (2015)	NCLS (Netherlands)	1986-2003	---	1.08 (0.96, 1.21)
Meta-analyses				
†Hamra et al. (2014)[c]	---	---	14 studies	1.04 (1.02, 1.07)
†Yang et al. (2015)[c]	---	---	10 studies	1.03 (1.00, 1.06)
†Chen et al. (2015)[c]	---	---	6 studies	1.05 (1.00, 1.10)
†Cui et al. (2014)[d]	---	---	12 studies	1.04 (1.03, 1.05)

Study	Cohort (Location)	Follow-up Years	Qualifier	Hazard Ratio (95% CI)

† Studies published since the 2009 PM Integrated Science Assessment.

[a]lung cancer mortality results originally reported in Beelen et al. (2008b).
[b]lung cancer incidence results originally reported in Beelen et al. (2008a).
[c]risk estimate is a combination of lung cancer mortality and incidence estimates.
[d]risk estimate is only for lung cancer mortality.
AQCD = Air Quality Criteria Document; ACS-CPS = American Cancer Society – Cancer Prevention Study; AHSMOG = Adventist Health Study on Smog; CanCHEC = Canadian Census Health and Environment Cohort; CCHS = Canadian Community Health Survey; CI = confidence interval; CNBSS = Canadian National Breast Screening Study; CTS = California Teacher's Study; ESCAPE = European Study of Cohorts for Air Pollution Effects; HSC = Harvard six cities cohort; NECSS = National Enhanced Cancer Surveillance System project; NHS = Nurses' Health Study; NCLS = Netherlands Cohort Study on Diet and Cancer; RoLS = Rome Longitudinal Study; TrIPS = Trucking Industry Particle Study.
Hazard ratios are standardized to a 5 $\mu g/m^3$ increase in annual $PM_{2.5}$ concentrations.

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