

Appendix

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Appendix table 1. Patterns of missing data

Variables	% of missing data			
	Australasia		Asia	
Cholesterol	16.3		80.9	
Diabetes	2.9		79.9	
BMI	1.1		69.1	
Alcohol drinking	1.5		3.3	
Smoking	0.1		0.4	

Cumulative number of missing values	Australasia		Asia	
	n	%	n	%
None	70116	80.8	21637	10.0
1	15329	17.7	22239	10.3
2	556	0.6	36060	16.7
3	817	0.9	134993	62.4
4	16	0.0	781	0.4
5	1	0.0	491	0.2

BMI = body mass index

Appendix table 2. Summary characteristics of subjects from studies with complete data

	N	Baseline year (range)	Median follow-up (years)	% female	Mean age (years) (SD)	Total deaths	Total CVD
Australasia	70116	78 - 94	8.1	52	51 (12)	3344	1308
ALSA	417	92 - 93	4.7	35	78 (6)	167	72
ANHF	9098	89 - 90	8.3	51	43 (13)	374	115
Fletcher Challenge	10104	92 - 94	5.8	28	44 (15)	372	465
Melbourne	41122	90 - 94	8.5	59	55 (9)	2081	551
Newcastle	3394	83 - 94	8.9	50	52 (10)	516	204
Perth	5981	78 - 94	14.4	51	45 (13)	299	103
Asia	21637	85 - 97	6.0	41	49 (14)	1123	501
Akabane	1801	85 - 86	11.0	55	54 (8)	133	77
Beijing Aging	1687	92	4.8	51	70 (9)	428	204
CVDFACTS	5524	88 - 96	6.0	55	47 (15)	228	60
EGAT	3487	85	11.4	23	43 (5)	165	51
Fangshan	797	91 - 92	3.6	66	47 (10)	48	51
Guangzhou Occupational	1821	85 - 97	7.1	22	41 (6)	2398	568
Hong Kong	187	85 - 91	2.5	57	79 (7)	652	202
Miyama	405	88 - 90	6.6	56	61 (10)	88	22
Singapore NHS92	3302	92	6.2	52	39(12)	71	78
Yunnan	2626	92	4.5	3	56 (9)	631	222
Overall	91753	78 - 97	7.9	49	51 (13)	4467	1809

SD = standard deviation, CVD = cardiovascular disease (comprise of fatal and nonfatal events), APCSC = Asia Pacific Cohort Study Collaboration, ALSA = Australian Longitudinal Study of Aging; ANHF = Australian National Heart Foundation; WA AAA Screenees = Western Australian Abdominal Aortic Aneurysm Screenees; CISCH = Capital Iron and Steel Company Hospital; NHS92 = National Health Study 1992; CVDFACTS = Cardiovascular Disease Risk Factors Two-Township Study; EGAT = Electricity Generating Authority of Thailand Study

Appendix table 3. Baseline age and sex-adjusted mean value (or percentage, where stated) by level of education attained. (complete case analysis)

	Educational attainment			p-value
	Tertiary	Secondary	Primary or none	
Australasia				
<i>n</i>	17939	19774	32403	
Age (year)	51	53	57	<0.0001
% Female	40	43	53	<0.0001
Body mass index (kg/m ²)	25.2	26.0	27.0	<0.0001
Systolic blood pressure (mmHg)	130	132	134	<0.0001
Total blood cholesterol (mmol/l)	5.5	5.6	5.6	<0.0001
% Cigarette smokers	11	20	23	<0.0001
% Alcohol drinkers ¹	86	81	72	<0.0001
% Diabetes	1.5	2.3	3.8	<0.0001
Asia				
<i>n</i>	2752	5557	13328	
Age (year)	48	48	56	<0.0001
% Female	32	35	49	<0.0001
Body mass index (kg/m ²)	22.4	22.6	22.9	<0.0001
Systolic blood pressure (mmHg)	123	124	124	<0.0001
Total blood cholesterol (mmol/l)	5.0	4.9	4.9	<0.0001
% Cigarette smokers	14	21	32	<0.0001
% Alcohol drinkers ¹	29	33	32	0.025
% Diabetes	3.1	3.1	3.2	0.7

¹Excluding Canberra, Anzhen 02 and Xian studies where information on alcohol drinking was not collected

Appendix table 4. Hazard ratios (95% confidence interval) for education in relation to major causes of death in the APCSC (complete case analysis)

Adjustment	Educational attainment			P-value for linearity	P-value for interaction by region
	Tertiary	Secondary	Primary or none		
All-cause mortality					
<i>Australasia</i>	<i>(e = 632)</i>	<i>(e = 784)</i>	<i>(e = 1928)</i>		
Age, sex	1	1.08 (0.96-1.21)	1.20 (1.09-1.33)	0.0001	
Multiple	1	1.02 (0.91-1.14)	1.10 (0.99-1.22)	0.046	
<i>Asia</i>	<i>(e = 65)</i>	<i>(e = 164)</i>	<i>(e = 894)</i>		
Age, sex	1	1.30 (0.97-1.73)	1.92 (1.47-2.52)	<0.0001	
Multiple	1	1.24 (0.93-1.65)	1.81 (1.38-2.36)	<0.0001	0.0005
CVD mortality					
<i>Australasia</i>	<i>(e = 188)</i>	<i>(e = 246)</i>	<i>(e = 587)</i>		
Age, sex	1	1.17 (0.95-1.44)	1.48 (1.22-1.79)	<0.0001	
Multiple	1	1.06 (0.86-1.30)	1.24 (1.02-1.51)	0.01	
<i>Asia</i>	<i>(e = 16)</i>	<i>(e = 61)</i>	<i>(e = 329)</i>		
Age, sex	1	2.03 (1.17-3.54)	2.51 (1.49-4.23)	0.0006	
Multiple	1	1.92 (1.10-3.34)	2.47 (1.47-4.17)	0.0005	0.053
Cancer mortality					
<i>Australasia</i>	<i>(e = 285)</i>	<i>(e = 371)</i>	<i>(e = 943)</i>		
Age, sex	1	1.03 (0.88-1.20)	1.07 (0.93-1.24)	0.29	
Multiple	1	0.99 (0.84-1.16)	1.01 (0.87-1.17)	0.85	
<i>Asia</i>	<i>(e = 18)</i>	<i>(e = 43)</i>	<i>(e = 229)</i>		
Age, sex	1	1.25 (0.72-2.17)	1.85 (1.11-3.09)	0.008	
Multiple	1	1.20 (0.69-2.09)	1.66 (1.00-2.78)	0.03	0.11
Non CVD - non cancer mortality					
<i>Australasia</i>	<i>(e = 159)</i>	<i>(e = 167)</i>	<i>(e = 398)</i>		
Age, sex	1	1.10 (0.87-1.40)	1.21 (0.97-1.51)	0.08	
Multiple	1	1.10 (0.86-1.40)	1.19 (0.96-1.49)	0.11	
<i>Asia</i>	<i>(e = 31)</i>	<i>(e = 60)</i>	<i>(e = 336)</i>		
Age, sex	1	0.96 (0.62-1.48)	1.69 (1.13-2.52)	0.001	
Multiple	1	0.93 (0.60-1.44)	1.62 (1.09-2.41)	0.002	0.04

In Model 1, educational attainment is adjusted for age at survey, sex and study

In Model 2, educational attainment is adjusted for the covariates in model 1 plus BMI, SBP, smoking, alcohol drinking, diabetes, total cholesterol.

CVD = cardiovascular disease, *e* = events (deaths)

Appendix table 5. Hazard ratios (95% confidence interval) for education in relation to cardiovascular diseases in the APCSC (complete case analysis)

Adjustment	Educational attainment			P-value for linearity	P-value for interaction by region
	Tertiary	Secondary	Primary or none		
Fatal and nonfatal CVD					
<i>Australasia</i>	<i>(e = 271)</i>	<i>(e = 407)</i>	<i>(e = 630)</i>		
Age, sex	1	1.18 (1.00-1.39)	1.46 (1.24-1.72)	<0.0001	
Multiple	1	1.05 (0.89-1.24)	1.23 (1.04-1.46)	0.01	
<i>Asia</i>	<i>(e = 22)</i>	<i>(e = 70)</i>	<i>(e = 409)</i>		
Age, sex	1	1.78 (1.10-2.89)	2.14 (1.37-3.34)	0.0009	
Multiple	1	1.70 (1.05-2.76)	2.09 (1.34-3.26)	0.001	0.09
Fatal and nonfatal CHD					
<i>Australasia</i>	<i>(e = 162)</i>	<i>(e = 243)</i>	<i>(e = 386)</i>		
Age, sex	1	1.18 (0.96-1.46)	1.50 (1.22-1.85)	<0.0001	
Multiple	1	1.01 (0.82-1.25)	1.21 (0.98-1.50)	0.05	
<i>Asia</i>	<i>(e = 6)</i>	<i>(e = 28)</i>	<i>(e = 87)</i>		
Age, sex	1	2.42 (1.00-5.88)	2.57 (1.07-6.20)	0.05	
Multiple	1	2.28 (0.94-5.55)	2.31 (0.96-5.60)	0.10	0.22
Fatal and nonfatal stroke					
<i>Australasia</i>	<i>(e = 66)</i>	<i>(e = 128)</i>	<i>(e = 138)</i>		
Age, sex	1	1.30 (0.95-1.78)	1.63 (1.16-2.28)	0.005	
Multiple	1	1.20 (0.88-1.65)	1.44 (1.03-2.04)	0.034	
<i>Asia</i>	<i>(e = 10)</i>	<i>(e = 26)</i>	<i>(e = 196)</i>		
Age, sex	1	1.49 (0.71-3.11)	1.96 (1.02-3.78)	0.03	
Multiple	1	1.42 (0.68-2.98)	1.92 (0.99-3.70)	0.03	0.74

In Model 1, educational attainment is adjusted for age at survey, sex and study

In Model 2, educational attainment is adjusted for the covariates in model 1 plus BMI, SBP, smoking, alcohol drinking, diabetes, total cholesterol.

CVD = cardiovascular disease, CHD = coronary heart disease, *e* = events

Appendix table 6. Age and sex-adjusted hazard ratios (95% confidence intervals) for primary or below compared to tertiary education in relation to site-specific cancer mortality in the APCSC

	Number of deaths	Australasia	Asia
Lung cancer	1105	1.77 (1.32; 2.38)	1.98 (1.33; 2.94)
Liver cancer	461	0.79 (0.36; 1.76)	1.58 (1.04; 2.40)
Colon cancer	431	0.88 (0.65; 1.19)	0.88 (0.41; 1.86)
Upper aero-digestive cancer	280	0.86 (0.48; 1.56)	4.04 (1.94; 8.40)
Stomach cancer	238	1.87 (0.95; 3.67)	1.75 (0.82; 3.76)
Breast cancer	218	0.69 (0.46; 1.03)	1.17 (0.27; 5.11)
Prostate cancer	181	0.72 (0.47; 1.09)	0.15 (0.04; 0.54)
Pancreas cancer	153	1.69 (0.91; 3.15)	2.29 (0.52; 10.07)
Ovarian cancer	90	1.14 (0.58; 2.24)	0.61 (0.18; 2.02)