評価対象論文リスト(要因:社会経済状況(SES)、アウトカム:死亡)

評価判定日:2023/12/22

①既存の系統的レビュー・メタ解析・統合解析

1	Vathesatogkit P, Batty GD, Woodward M. Socioeconomic disadvantage and disease-specific mortality in Asia: systematic review with meta-analysis of population-based cohort studies. J Epidemiol Community Health. 2014;68(4):375-383. doi:10.1136/jech-2013-203053
2	Stringhini S, Carmeli C, Jokela M, et al. Socioeconomic status and the 25 × 25 risk factors as determinants of premature mortality: a multicohort study and meta-analysis of 1·7 million men and women. The Lancet. 2017;389(10075):1229-1237. doi:10.1016/S0140-6736(16)32380-7
3	Woodward M, Peters SAE, Batty GD, et al. Socioeconomic status in relation to cardiovascular disease and cause-specific mortality: a comparison of Asian and Australasian populations in a pooled analysis. BMJ Open. 2015;5(3):e006408. doi:10.1136/bmjopen-2014-006408

②日本人集団の個別疫学研究

4	Dhungel B, Murakami T, Wada K, Ikeda S, Gilmour S. Difference in mortality rates by occupation in japanese male workers aged 25 to 64 years from 1980 to 2015. IJERPH. 2022;19(18):11328. doi:10.3390/ijerph191811328
5	Tanaka H, Tanaka T, Wada K. Mortality by occupation and industry among Japanese men in the 2015 fiscal year. Environ Health Prev Med. 2020;25(1):37. doi:10.1186/s12199-020-00876-3
6	Nakade M, Takagi D, Suzuki K, et al. Influence of socioeconomic status on the association between body mass index and cause-specific mortality among older Japanese adults: The AGES Cohort Study. Preventive Medicine. 2015;77:112-118. doi:10.1016/j.ypmed.2015.05.015
7	Hirai H, Kondo K, Kawachi I. Social determinants of active aging: differences in mortality and the loss of healthy life between different income levels among older japanese in the ages cohort study. Current Gerontology and Geriatrics Research. 2012;2012:1-9. doi:10.1155/2012/701583
8	Yong V, Saito Y. Are there education differentials in disability and mortality transitions and active life expectancy among japanese older adults? Findings from a 10-year prospective cohort study. The Journals of Gerontology Series B: Psychological Sciences and Social Sciences. 2012;67B(3):343-353. doi:10.1093/geronb/gbs029
9	Ito S, Takachi R, Inoue M, et al. Education in relation to incidence of and mortality from cancer and cardiovascular disease in Japan. The European Journal of Public Health. 2008;18(5):466-472. doi:10.1093/eurpub/ckn052
10	Hirokawa K, Tsutusmi A, Kayaba K. Impacts of educational level and employment status on mortality for Japanese women and men: the Jichi Medical School cohort study. Eur J Epidemiol. 2006;21(9):641-651. doi:10.1007/s10654-006-9049-2
11	Iwasaki M, Otani T, Ohta A, Yosiaki S, Kuroiwa M, Suzuki S. Rural-urban differences in sociodemographic, social network and lifestyle factors related to mortality of middle-aged japanese men from the komo-ise cohort study. Journal of Epidemiology. 2002;12(2):93-104.
12	Ishizaki T, Kai I, Imanaka Y. Self-rated health and social role as predictors for 6-year total mortality among a non-disabled older Japanese population. Archives of Gerontology and Geriatrics. 2006;42(1):91-99. doi:10.1016/j.archger.2005.05.002
13	Fujino Y, Tamakoshi A, Iso H, et al. A nationwide cohort study of educational background and major causes of death among the elderly population in Japan. Preventive Medicine. 2005;40(4):444-451. doi:10.1016/j.ypmed.2004.07.002

14	Fujino Y, Japan Collaborative Cohort Study for Evaluation of Cancer. Occupational factors and mortality in the japan collaborative cohort study for evaluation of cancer(Jacc). Asian Pac J Cancer Prev. 2007;8 Suppl:97-104.

■メタ解析、系統的レビュー

Reference			Include study	Design	Category	Relative risk (95% CI or p)			Magnitude of association
Author	Title	Year	Event (*Definition)			**Education**	**Income**	**Occupation**	
Vathesatogkit P, Battyet GD et al.	Socioeconomic disadvantage and disease-specific mortality in Asia: systematic review with meta-analysis of population-based cohort	2014	All-cause mortality	Cohort studies	Highest Lowest	Reference **1.40 (1.29–1.52)**	Reference **1.41 (1.24–1.61)**	Reference **1.14 (1.01–1.30)**	↑
			Cardiovascular mortality	Cohort studies	Highest Lowest	Reference **1.66 (1.23–2.25)**	Reference 1.45 (0.88–2.36)	Reference 1.07 (0.86–1.33)	↑ ↑ (education)
			Cancer mortality	Cohort studies	Highest Lowest	Reference **1.16 (1.07–1.27)**	Reference **1.35 (1.08–1.68)**	Reference 0.99 (0.83–1.17)	↑ (education, income)

Reference			Include study	Category	Relative risk (95% CI or p)	Confounding variables considered	Magnitude of association	Relative risk (95% CI or p)	Confounding variables considered	Magnitude of association
Author	Title	Year	Event (*Definition)							
Stringhini S, Carmeli C et al.	Socioeconomic status and the 25 × 25 risk factors as determinants of premature mortality: a multicohort study and meta-analysis of 1·7 million men and women	2017	All-cause mortality	**Occupational position (males)** High Intermediate Low **Occupational position (females)** High Intermediate Low	 Reference **1.21 (1.18–1.24)** **1.42 (1.38–1.45)** Reference **1.17 (1.12–1.22)** **1.34 (1.28–1.39)**	Sex, age, and race or ethnicity	↑ ↑	Reference (all participants) **1.26 (1.21–1.32)**	Sex, age, race or ethnicity, alcohol intake, physical activity, current tobacco use, hypertension, intake of salt or sodium, diabetes, and obesity	↑ ↑
			Cardiovascular mortality	**Occupational position** High Low	 Reference **1.52 (1.37–1.67)**		↑	Reference **1.29 (1.16–1.43)**		↑
			Cancer mortality	**Occupational position** High Low	 Reference **1.43 (1.34–1.52)**		↑	Reference **1.26 (1.19–1.34)**		↑
			Mortality from other causes	**Occupational position** High Low	 Reference **1.45 (1.35–1.56)**		↑	Reference **1.25 (1.17–1.33)**		↑

■コホート研究（コホートのプール解析含む）

Reference			Study subjects											
Author	Title	Year	Study period	Number of subjects	Source of subjects	Event followed	Number of incident cases or	Participant's race	Category	Number among cases	Relative risk (95%CI or p)	P for trend	Confounding variables considered	**Magnitude of association**
Woodward M, Peters SAE et al.	Socioeconomic status in relation to cardiovascular disease and cause-specific mortality: a comparison of Asian and Australasian populations in a pooled analysis	2015							**Education**					
						All-cause mortality			Tertiary		Reference			
									Secondary		**1.21 (1.07–1.36)**	**<0.001**		↑ ↑
									Primary or none		**1.56 (1.38–1.76)**			
						Cardiovascular mortality			Tertiary		Reference			
									Secondary		1.23 (0.98 to 1.56)	**<0.001**		↑ ↑
									Primary or none		**1.78 (1.42–2.23)**			
						Cancer mortality			Tertiary		Reference			
									Secondary		1.16 (0.96 to 1.39)	**<0.001**		↑
									Primary or none		**1.39 (1.15–1.69)**			
						Mortality due to other			Tertiary		Reference			
									Secondary		1.21 (0.98 to 1.50)	**<0.001**		↑ ↑
									Primary or none		**1.56 (1.26–1.94)**			

■コホート研究（コホートのプール解析含む）

Reference			Study subjects										
Author	Title	Year	Study period	Number of subjects	Source of subjects	Event followed	Number of incident cases or	Participant's race	Category	Number among cases	Relative risk (95%CI or p)	P for trend	Confounding variables considered	**Magnitude of association**
Tanaka H, Tanaka T et al.	Mortality by occupation and industry among Japanese men in the 2015 fiscal year	2020	The 2015 fiscal year	24,863,422	Report of Vital Statistics: Occupational and Industrial Aspects	All-cause mortality	28,695	Japanese	**Occupation**					
									Clerical workers	2,495	**0.64 (0.61–0.68)**			
									Carrying, cleaning, packaging, and related workers	1,064	**0.73 (0.68–0.78)**			
									Manufacturing process workers	3,424	**0.90 (0.85–0.94)**			
									Sales workers	2,890	Reference			
									Security official	794	**1.10 (1.02–1.19)**			↑↑↑
									Transport and machine operating workers	2,015	**1.18 (1.12–1.25)**			
									Professional workers	4,840	**1.35 (1.29–1.42)**			
									Construction and mining workers	3,546	**1.79 (1.70–1.88)**			
									Administrative and managerial workers	2,031	**1.86 (1.76–1.97)**			
									Agriculture forestry and fishery workers	2,017	**2.50 (2.36–2.65)**			
									Service workers	3,579	**2.89 (2.75–3.03)**			
									Industry					
									Education	621	**0.79 (0.72–0.86)**			
									Wholesale and retail	2,479	Reference			
									Combined services	205	1.02 (0.88–1.17)			
									Research and professional services	903	1.10 (1.00–1.22)	Age		
									Real estate and rental	477	**1.10 (1.02–1.18)**			
									Manufacturing	4,688	**1.16 (1.11–1.22)**			
									Medical and welfare	1,201	**1.25 (1.16–1.33)**			
									Government	1,230	**1.31 (1.22–1.40)**			
									Finance	641	**1.37 (1.29–1.46)**			
									Other services	1,902	**1.38 (1.27–1.51)**			↑↑↑
									Information	1,024	**1.45 (1.35–1.56)**			
									Transport	2,635	**1.54 (1.45–1.62)**			
									Entertainment services	739	**1.77 (1.63–1.92)**			
									Construction	4,438	**1.81 (1.73–1.90)**			
									Accommodations and dining services	1,296	**2.20 (2.05–2.35)**			
									Agriculture and forestry	1,905	**3.13 (2.95–3.32)**			
									Electricity and gas	727	**4.26 (3.92–4.63)**			
									Fisheries	388	**5.52 (4.96–6.14)**			
									Mining	232	**16.6 (14.5–19.0)**			

Miyo Nakade, Daisuke Takagi et al.	Influence of socioeconomic status on the association between body mass index and cause-specific mortality among older Japanese adults: The AGES Cohort Study	2015	2003–2008	14,931	Aichi Gerontological Evaluation Study: Community-dwelling older individuals aged 65 years or older, who were physically and cognitively independent in their activities of daily living, and lived in one of eight municipalities	All-cause mortality	857	Japanese	**Income (males)** High-income (more than 3 million yen) Middle-income Low-income BMI <18.5 × Middle-income BMI <18.5 × Low-income BMI18.5–22.9 × Middle-income BMI18.5–22.9 × Low-income BMI 25.0 × Middle-income BMI 25.0 × Low-income **Income (females)** High-income (more than 3 million yen) Middle-income Low-income BMI <18.5 × Middle-income BMI <18.5 × Low-income BMI18.5–22.9 × Middle-income BMI18.5–22.9 × Low-income BMI 25.0 × Middle-income BMI 25.0 × Low-income **Education (males)** High-education (more than 10 years) Low-education BMI <18.5 × Low-education BMI18.5–22.9 × Low-education BMI 25.0 × Low-education **Education (females)** High-education (more than 10 years) Low-education BMI <18.5 × Low-education BMI18.5–22.9 × Low-education BMI 25.0 × Low-education	 Reference 1.34 (0.82–2.18) 1.64 (0.91–2.95) 1.17 (0.54–2.54) 1.28 (0.50–3.31) 1.50 (0.86–2.62) 1.72 (0.85–3.48) 1.35 (0.69–2.67) 2.16 (0.94–4.97) Reference 0.71 (0.33–1.52) 0.72 (0.33–1.56) 0.67 (0.21–2.12) 0.53 (0.16–1.73) 0.87 (0.34–2.24) 0.71 (0.26–1.95) 0.63 (0.20–1.99) 0.76 (0.24–2.36) Reference 0.97 (0.66–1.44) 1.07 (0.58–1.99) 0.88 (0.56–1.39) 0.91 (0.52–1.59) Reference 0.86 (0.50–1.46) 0.87 (0.38–2.01) 1.23 (0.62–2.44) **0.46 (0.22–0.99)**	Age, marital status, self-rated health, and present illness	–
Hiroshi Hirai, Katsunori Kondo et al.	Social Determinants of Active Aging: Differences in Mortality and the Loss of Healthy Life between Different Income Levels among Older Japanese in the AGES Cohort Study	2012	2003-2007	22,829	The Aichi Gerontological Evaluation Study (AGES): Elderly people aged 65 years and older who are independent in physical and cognitive functioning.	All-cause mortality	1,328	Japanese	**Income (males)** Income level Level 5 (Highest) Level 4 Level 3 Level 2 Level 1 (Lowest) **Income (females)** Income level Level 5 (Highest) Level 4 Level 3 Level 2 Level 1 (Lowest)	 Reference 1.17 (0.99–1.40) **1.55 (1.31–1.84)** **1.53 (1.28–1.82)** **3.50 (1.91–6.42)** Reference 1.44 (0.79–2.62) 1.42 (0.90–2.25) 1.54 (0.97–2.45) **2.48 (1.09–5.67)**	Age	↑↑↑ ↑↑↑
Vanessa Yong, Yasuhiko Saito et al.	Are there education differentials in disability and mortality transitions and active life expectancy among Japanese older adults? Findings from a 10-year prospective cohort study	2012	1999-2009	4,968	Nihon University Japanese Longitudinal Study of Aging A nationally representative sample of older Japanese aged 65 years and above living in	All-cause mortality	572	Japanese	**Education** Less than high school High school and above	 391 181	Educational levels had no siginificant effects on transition probabilities from active state (without physical disability) to death.	None	–

■コホート研究（コホートのプール解析含む）

Reference			Study subjects															
Author	Title	Year	Study period	Number of subjects	Source of subjects	Event followed	Number of incident cases or	Participant's race	Category	Number among cases	Relative risk (95%CI or p)	P for trend	Confounding variables considered	**Magnitude of association**	Relative risk (95%CI or p)	P for trend	Confounding variables considered	**Magnitude of association**
Shinichiro Ito, Ribeka Takachi et al.	Education in relation to incidence of and mortality from cancer and cardiovascular disease in Japan	2008	1990–2003	39,228	The Japan Public Health Center-based Prospective Study (JPHC study) Cohort I	All-cause mortality	2,430	Japanese	**Education**									
									Primary	1,490	**1.31 (1.13–1.51)**	**<0.001**	Sex, age, and area	↑	**1.19 (1.01–1.42)**	**0.002**	Sex, age, area, smoking status, weekly ethanol intake, frequency of sports, body mass index, energy intake, screening tests, fruit intake, green vegetables intake, yellow vegetables intake, other vegetables intake, and occupation	↑
									Secondary	731	1.05 (0.90–1.22)				1.02 (0.86–1.21)			
									Tertiary	209	Reference				Reference			
Hirokawa K, Tsutusmi A et al.	Impacts of educational level and employment status on mortality for Japanese women and men: the Jichi Medical School cohort study	2006	1992–2002	11,081	The Jichi Medical School Cohort Study	All-cause mortality	588	Japanese	**Education (females)**									
									≥18 years	30	Reference	**0.05**		–	Reference	0.08	Age, educational level, employment status, marital status, alcohol consumption, smoking status, financial capability index, vegetable tendency, western meal tendency, physical activity, BMI, hypertension, total cholesterols, and menopausal status	–
									15–17 years	101	1.28 (0.85–1.92)				1.49 (0.92–2.39)			
									<15 years	108	1.52 (0.99–2.33)				1.65 (0.99–2.74)			
									Education (males)									
									≥18 years	69	Reference	**0.05**	Age	↑	Reference	0.28		–
									15–17 years	191	**1.33 (1.01–1.75)**				1.21 (0.90–1.64)			
									<15 years	89	1.39 (1.00–1.93)				1.22 (0.85–1.76)			
									Occupation (females)									
									White-collar	40	Reference				Reference			
									Blue-collar	19	0.70 (0.41–1.21)			–	0.69 (0.38–1.25)			–
									Farmers and forestry workers	43	0.55 (0.35–0.85)				0.55 (0.33–0.93)			
									Unemployed	137	0.80 (0.55–1.16)				0.75 (0.49–1.14)			
									Occupation (females)									
									White-collar	42	Reference				Reference			
									Blue-collar	84	1.22 (0.84–1.76)			↑↑	0.98 (0.65–1.48)			↑↑
									Farmers and forestry workers	129	1.25 (0.88–1.78)				1.05 (0.71–1.56)			
									Unemployed	94	**1.64 (1.11–2.41)**				**1.51 (1.00–2.28)**			
Iwasaki M, Otani T et al.	Rural-urban differences in sociodemographic, social network and lifestyle factors related to mortality of middle-aged Japanese men from the Komo-Ise cohort study	2002	1993-2000	2,295 (rural area) and 3,334 (urban area)	he Komo-Ise Stuc	All-cause mortality	131 (rural group) and 207 (urban group)	Japanese	**Occupation (rural area)**									
									Salaried worker		Reference				Reference			
									Self-employed		**1.93 (1.24–2.98)**			↑↑	1.28 (0.72–2.27)			–
									Agriculture and forestry		1.07 (0.68–1.68)				0.72 (0.37–1.39)		Age, area, occupation, educational background, smoking habit, alcohol	
									No occupation		1.47 (0.62–3.48)				1.47 (0.54–3.98)			
									Occupation (urban area)									
									Salaried worker		Reference				Reference			
									Self-employed		**0.72 (0.53–0.98)**		Age	↓	0.80 (0.55–1.15)			-

								Agriculture and forestry		0.83 (0.20–3.34)	Age		1.93 (0.46–8.05)	alcohol consumption, body mass index, and chronic disease	
								No occupation		0.98 (0.58–1.67)			0.94 (0.58–1.80)		
								Education (rural area)							
								Junior college or higher		Reference		↑↑	Reference		↑↑
								High school or lower		**4.08 (1.30–12.85)**			**4.39 (1.06–18.21)**		
								Education (urban area)							
								Junior college or higher		Reference		–	Reference		–
								High school or lower		1.28 (0.89–1.84)			1.07 (0.69–1.64)		
Ishizaki T, Kai I et al.	Self-rated health and social role as predictors for 6-year total mortality among a non-disabled older Japanese population	2006	1992–1998	8,090	The Saku Longitudinal Study on Aging	All-cause mortality	1,363	Japanese	**Education (males)**			Being engaged in work, having any hobbies, living with spouse, living with children,			
									≥9 years		Reference		–		
									0–8 years		0.99 (0.83–1.20)				
									Education (females)						
									≥9 years		Reference		–		
									0–8 years		1.19 (0.97–1.47)				
Fujino Y, Tamakoshi A et al.	A nationwide cohort study of educational background and major causes of death among the elderly population in Japan	2005	1988-Unclear	110,792	The Japan Collaborative Cohort Study for the Evaluation of Cancer Risk (JACC Study)	All-cause mortality	3,948	Japanese	**Education (males)**						
									18 years or older		Reference		↑	Reference	↑
									16–17 years old		1.06 0.97, 1.16			1.06 0.97, 1.16	
									15 years or younger		**1.16 (1.08–1.25)**	Age		**1.14 (1.05–1.22)**	alcohol, job stat
									Education (females)						
									18 years or older		Reference		↑	Reference	↑
									16–17 years old		1.04 0.92, 1.16			1.03 0.92, 1.15	
									15 years or younger		**1.26 (1.14–1.39)**			**1.23 (1.12–1.36)**	
Fujino Y	Occupational factors and mortality in the Japan Collaborative Cohort Study for Evaluation of Cancer (JACC)	2007	Unclear	Unclear	The Japan Collaborative Cohort Study for the Evaluation of Cancer Risk (JACC Study)	All-cause mortality	Unclear	Japanese	**Type of employment (males)**						
									Employed	1,439	Reference				
									Part time	166	1.08 (0.92, 1.27)				
									Self-employed	2,842	**1.14 (1.07, 1.22)**		↑		
									Housewife	11	1.25 (0.69, 2.28)				
									Unemployed	3,033	**1.59 (1.47, 1.71)**				
									Others	610	**1.26 (1.14, 1.40)**				
									Type of employment (females)						
									Employed	272	Reference				
									Part time	220	1.09 (0.91, 1.30)				
									Self-employed	713	**1.18 (1.03, 1.37)**				
									Housewife	1,426	**1.15 (1.00, 1.31)**	Age	↑		
									Unemployed	2,840	**1.49 (1.30, 1.71)**				
									Others	295	1.18 (0.99, 1.40)				
									Type of job (males)						
									Office work	819	Reference				
									Manual work	3,224	1.03 (0.95, 1.11)		–		
									Others	538	1.04 (0.93, 1.18)				
									Type of job (females)						
									Office work	215	Reference				
									Manual work	904	0.86 (0.74, 1.00)		–		
									Others	649	0.97 (0.83, 1.15)				