

**Table S1.** Search term in PubMed, Web of Science, Embase, Wanfang, and China National Knowledge Infrastructure databases.

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(meta-analysis OR review OR systematic review OR systematic overview)

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AND

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(stroke OR cerebral infarction OR ischemic stroke OR cerebral hemorrhage OR hemorrhagic stroke)

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AND

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((association OR associated OR relationship OR related OR risk ) OR ( diet OR dietetic OR diets OR dietary) OR (nutrition OR nutrient) OR (food OR food group OR food cluster) OR beverage) OR ( cereal OR grain OR corn OR wholegrain OR soy OR soya OR whole wheat OR potatoes OR granary OR tuber OR pulses OR legumes OR lentils OR beans OR rice OR quinoa OR fruit and vegetable OR milk OR dairy OR dairy products OR yogurt OR cheese OR cream OR egg OR meat OR pork OR lamb OR chicken OR poultry OR beef OR turkey OR duck OR fish OR seafood OR shellfish OR salt OR oil OR butter OR margarine OR nut OR desert OR sweets OR candy OR chocolate) OR (alcohol OR caffeine OR coffee OR tea OR juice OR beer OR lemonade OR drinks OR drinking OR wine OR liquor OR sugar sweetened beverage) OR (dietary pattern OR mediterranean OR vegetarian OR dietary approaches to stop hypertension ) OR (macronutrient OR fat OR fatty acid OR carbohydrate OR fiber OR fiber OR cholesterol OR starch OR fructose OR protein) OR (micronutrient OR vitamin OR mineral OR calcium OR flavonoid OR iron OR iodine OR zinc OR selenium OR copper OR manganese OR chromium OR cobalt OR pantothenic acid OR folic acid OR potassium OR sodium OR folate OR magnesium) OR (physical OR exercise OR walking OR weight OR obesity OR blood pressure OR pulse pressure OR sleep OR smoking OR drug OR work OR rest) OR (emotion OR mental OR depression OR despondent OR social isolation OR anger OR hostility) OR (traffic OR pollution ))

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**Table S2.** Criteria for quality of evidence classification in observed studies.

Category	Criteria
Strong evidence	No. of cases > 1,000 $P < 1 \times 10^{-6}$ $I^2 < 50\%$ 95% prediction interval excluding the null No small-study effects No excess significance bias
Highly suggestive evidence	No. of cases > 1,000 $P < 1 \times 10^{-6}$ Largest study with a statistically significant effect
Suggestive evidence	No. of cases > 1,000 $P < 1 \times 10^{-6}$
Weak evidence	$P < 0.05$
No significant evidence	$P > 0.05$

**Table S3.** List of excluded studies

Eligibility in the basis of full article review	n <sup>ref</sup>
Not the largest and most comprehensive systematic review and meta-analysis assessing the effect	53 <sup>1-53</sup>
Not especially for purposed exposure	4 <sup>54-57</sup>
Not the outcomes	2 <sup>58-59</sup>
Not cohort study included	2 <sup>60-61</sup>
Not modifiable factors reported	10 <sup>62-70</sup>
Full-text not available	1 <sup>71</sup>

**Table S4.** List of excluded studies according to each exposure.

Exposure	Searched (n <sup>ref</sup> )	Excluded (n <sup>ref</sup> reasons)
<b>Food factors</b>		
Fruit and vegetable	2 <sup>1 72</sup>	1 <sup>1</sup> (not the largest and most comprehensive)
Salt	2 <sup>54 55</sup>	1 <sup>54</sup> (not the largest and most comprehensive)
Olive oil	1 <sup>73</sup>	NA
Legumes	2 <sup>2 74</sup>	1 <sup>2</sup> (not the largest and most comprehensive)
Whole grain	1 <sup>75</sup>	NA
Refined grain	1 <sup>76</sup>	NA
Milk	4 <sup>3-5 77</sup>	3 <sup>3-5</sup> (not the largest and most comprehensive)
Low fat milk	4 <sup>3-5 77</sup>	3 <sup>3-5</sup> (not the largest and most comprehensive)
High fat milk	4 <sup>3-5 77</sup>	3 <sup>3-5</sup> (not the largest and most comprehensive)
Yogurt	4 <sup>3-5 77</sup>	3 <sup>3-5</sup> (not the largest and most comprehensive)
Fermented dairy	4 <sup>3-5 77</sup>	3 <sup>3-5</sup> (not the largest and most comprehensive)
Low fat dairy	4 <sup>3-5 77</sup>	3 <sup>3-5</sup> (not the largest and most comprehensive)
High fat dairy	4 <sup>3-5 77</sup>	3 <sup>3-5</sup> (not the largest and most comprehensive)
Soy	1 <sup>78</sup>	NA
Nuts	2 <sup>2 79</sup>	1 <sup>2</sup> (not the largest and most comprehensive)
Cheese	2 <sup>3 4</sup>	1 <sup>4</sup> (not the largest and most comprehensive)
Cream	2 <sup>3 4</sup>	1 <sup>4</sup> (not the largest and most comprehensive)
Butter	2 <sup>3 4</sup>	1 <sup>4</sup> (not the largest and most comprehensive)
Total meat	2 <sup>6 57</sup>	1 <sup>6</sup> (not the largest and most comprehensive)
Red meat	2 <sup>6 57</sup>	1 <sup>6</sup> (not the largest and most comprehensive)
Processed meat	2 <sup>6 57</sup>	1 <sup>6</sup> (not the largest and most comprehensive)
White meat	2 <sup>6 57</sup>	1 <sup>6</sup> (not the largest and most comprehensive)
Chocolate	3 <sup>7 8 80</sup>	2 <sup>7 8</sup> (not the largest and most comprehensive)
Poultry	2 <sup>57 81</sup>	1 <sup>57</sup> (not especially for poultry)
Fish	8 <sup>9-14 57 82</sup>	7 <sup>9-14 57</sup> (not the largest and most comprehensive)
Lean fish	8 <sup>9-14 57 82</sup>	7 <sup>9-14 57</sup> (not the largest and most comprehensive)
Fatty fish	8 <sup>9-14 57 82</sup>	7 <sup>9-14 57</sup> (not the largest and most comprehensive)
Shellish	8 <sup>9-14 57 82</sup>	7 <sup>9-14 57</sup> (not the largest and most comprehensive)
Egg	5 <sup>10 11 15 16 83</sup>	4 <sup>10 11 15 16</sup> (not the largest and most comprehensive)
<b>Beverages</b>		
Tea	2 <sup>17 84</sup>	1 <sup>17</sup> (not the largest and most comprehensive)
Alcohol	10 <sup>18-26 85</sup>	9 <sup>18-26</sup> (not the largest and most comprehensive)
Coffee	4 <sup>10 27-29</sup>	3 <sup>27-29</sup> (not the largest and most comprehensive)
<b>Dietary behaviours</b>		
Mediterranean diet	1 <sup>86</sup>	NA
DASH	1 <sup>87</sup>	NA
<b>Micronutrients</b>		

Vitamin C	1 <sup>88</sup>	NA
Calcium	3 <sup>30 31 89</sup>	2 <sup>30 31</sup> (not the largest and most comprehensive)
Flavonoid	1 <sup>90</sup>	NA
		5 <sup>32-36</sup> (not the largest and most comprehensive)
Potassium	7 <sup>32-36 56 91</sup>	1 <sup>56</sup> (not especially for potassium)
Vitamin E	3 <sup>60 92</sup>	2 <sup>60</sup> (not cohort)
Sodium	3 <sup>54-56</sup>	2 <sup>54 55</sup> (not especially for sodium)
Vitamin B6	2 <sup>58 93</sup>	1 <sup>58</sup> (not the outcome)
Folate	2 <sup>58 93</sup>	1 <sup>58</sup> (not the outcome)
Vitamin B12	2 <sup>58 93</sup>	1 <sup>58</sup> (not the outcome)
Vitamin D	1 <sup>94</sup>	NA
Magnesium	6 <sup>32 33 37-39 95</sup>	5 <sup>32 33 37-39</sup> (not the largest and most comprehensive)
<b>Macronutrients</b>		
Fiber	1 <sup>96</sup>	NA
Carbohydrate	1 <sup>97</sup>	NA
Monounsaturated fatty acid	1 <sup>98</sup>	NA
Protein	1 <sup>99</sup>	NA
Cholesterol	1 <sup>100</sup>	
Saturated fat	3 <sup>40 41 101</sup>	2 <sup>40 41</sup> (not the largest and most comprehensive)
<b>Factors of physical health management</b>		
Overweight	2 <sup>23 102</sup>	1 <sup>23</sup> (not the largest and most comprehensive)
Obesity	2 <sup>23 102</sup>	1 <sup>23</sup> (not the largest and most comprehensive)
Shift-work	1 <sup>103</sup>	NA
Physical activity	5 <sup>42-45 104</sup>	4 <sup>42-45</sup> (not the largest and most comprehensive)
		1 <sup>59</sup> (not the outcome) ;
PP	2 <sup>53 59 105</sup>	1 <sup>53</sup> (not the largest and most comprehensive)
SBP	2 <sup>59 105</sup>	1 <sup>59</sup> (not the outcome)
DBP	2 <sup>105</sup>	1 <sup>59</sup> (not the outcome)
Sleep duration	3 <sup>46 47 106</sup>	2 <sup>46 47</sup> (not the largest and most comprehensive)
Oral contraceptives	1 <sup>107</sup>	NA
Anti-inflammatory drugs	1 <sup>108</sup>	NA
Smoking	4 <sup>23 48 49 109</sup>	3 <sup>23 48 49</sup> (not the largest and most comprehensive)
walking pace	1 <sup>110</sup>	NA
<b>Factors of emotional health management</b>		
Depression	1 <sup>111</sup>	NA
Social isolation	1 <sup>112</sup>	NA
Anger and hostility	1 <sup>113</sup>	NA

**Factors of environmental health management**

Road traffic noise	1 <sup>114</sup>	NA
PM <sub>2.5</sub>	4 <sup>50-52 115</sup>	3 <sup>50-52</sup> (not the largest and most comprehensive)
PM <sub>10</sub>	4 <sup>50-52 115</sup>	3 <sup>50-52</sup> (not the largest and most comprehensive)
NO <sub>2</sub>	4 <sup>50-52 115</sup>	3 <sup>50-52</sup> (not the largest and most comprehensive)

Abbreviations: NA, not available; DASH, dietary approaches to stop hypertension; PP, pulse pressure; SBP, systolic blood pressure; DBP, diastolic blood pressure.

**Table S5.** Main characteristics of included systematic reviews or meta-analyses that evaluate modifiable factors and stroke risk.

First Author, Year	Main Comparison	Exposure	No. of primary cohort studies	Follow-up duration (years)	No. of participants / No. of cases	AMSTAR 2
<b>Food factors</b>						
He, 2006 <sup>72</sup>	High vs low	Intake	8	3.09-20.00	257,551 / 4,917	Critically low
Strazzullo, 2009 <sup>55</sup>	High vs low	Intake	10	3.50-19.00	154,282 / 5,346	Critically low
Martínez-González, 2014 <sup>73</sup>	Dose-response	25 g/d	2	4.80-10.40	31,226 / 543	Critically low
Shi, 2014 <sup>74</sup>	High vs low	Intake	5	12.50-26.00	173,229 / 4,030	Critically low
Fang, 2015 <sup>75</sup>	High vs low	Intake	6	5.50-24.00	247,487 / 1,635	Critically low
Wu, 2015 <sup>76</sup>	High vs low	Intake	7	5.50-15.20	410,821 / 8,284	Critically low
		200 g/d	14	10.00-25.00	603,919 / 24,887	
		200 g/d	4	10.00-13.60	159,547 / 5,942	
		200 g/d	4	10.00-13.60	159,547 / 5,942	
de Goede, 2016 <sup>77</sup>	Dose-response	100 g/d	3	13.60-17.30	116,555 / 3,894	Critically low
		200 g/d	5	10.00-17.30	160,048 / 7,032	
		200 g/d	6	10.00-24.30	263,425 / 10,044	
		200 g/d	5	10.20-24.30	262,643 / 8,990	
Lou, 2016 <sup>78</sup>	High vs low	Intake	3	6.30-14.70	119,884 / 2,032	Critically low
Shao, 2016 <sup>79</sup>	Dose-response	12 grams/day	11	4.30-22.70	671,301 / 7,665	Critically low
		Intake	6	10.00-17.30	224,101 / 10,483	
Gholami, 2017 <sup>3</sup>	High vs low	Intake	3	10.20-13.60	127,962 / 8,546	Critically low
		Intake	3	10.00-13.69	111,280 / 5,299	
		Intake	4	7.50-18.00	213,722 / 8,848	

Kim, 2017 <sup>57</sup>	High vs low	Intake	Red meat	5	5.50-26.00	254,742 / 9,522	
		Intake	Processed meat	5	10.10-26.00	254,742 / 9,522	Critically low
Yuan, 2017 <sup>80</sup>	High vs low	Intake	White meat	2	5.50-26.00	138,761 / 4,759	
		Intake	Chocolate	7	4.70-16.00	231,038 / 8,197	Critically low
Mohammadi, 2018 <sup>81</sup>	High vs low	Intake	Poultry	5	5.50-26.00	354,728 / 7,705	Critically low
			Fish	31	4.00-30.00	1,145,154 / 32,738	
			Lean fish	5	4.30-18.00	101,594 / 2,966	Low
Zhao, 2019 <sup>82</sup>	High vs low	Intake	Fatty fish	6	4.30-18.00	125,906 / 3,387	
			Shellfish	5	4.30-12.00	200,046 / 2,152	
		Intake	Egg	16	8.80-32.00	1,387,653 / 5,8451	Critically low
<b>Beverages</b>							
Shen, 2012 <sup>84</sup>	Dose-response	3 cups/d	Tea	14	4.00-24.00	513,804 / 10,192	Critically low
Larsson, 2016 <sup>117</sup>	High vs low	Light-to-moderate	Alcohol	29	3.80-29.10	1102642 / 222,825	Critically low
		High-to-heavy					
Shao, 2021 <sup>29</sup>	High vs low	Intake	Coffee	21	3.50-28.00	2,483,086 / 26,241	Critically low
<b>Dietary behaviors</b>							
Psaltopoulou, 2013 <sup>86</sup>	High vs low	Adherence	Mediterranean diet	4	7.89-20.00	152843/ 2560	Critically low
Feng, 2018 <sup>87</sup>	High vs low	Adherence	DASH	12	7.90-24.00	548,632 / 15,270	Critically low
<b>Micronutrients</b>							
Chen, 2013 <sup>88</sup>	High vs low	Intake	Vitamin C	12	6.10-30.00	217,454 / 3,762	Critically low
Larsson, 2013 <sup>89</sup>	Dose-response	< 700 mg/d	Calcium	5	9.60-22.0	153,280 / 2,634	Critically low
		> 700 mg/d		6	98.00-13.60	250,551 / 6,461	
Tang, 2016 <sup>90</sup>	Dose-response	100 mg/d	Flavonoid	11	6.10-28.00	356,627 / 5,154	Critically low
Vinceti, 2016 <sup>91</sup>	High vs low	Intake	Potassium	16	3.70-25.80	639,440 / 19,522	Critically low



Cheng, 2018 (1) <sup>92</sup>	High vs low	Intake	Vitamin E	9	6.10-15.00	220,371 / 3,284	Critically low
Jayedi, 2019 <sup>118</sup>	Dose-response	1 gr/d	Sodium	13	4.70-28.00	252,985 / 9,503	Critically low
Chen, 2020 <sup>93</sup>	High vs low	Intake	Vitamin B6	5	10.00-16.20	264,253 / 7,334	Critically low
		Intake	Folate	10	4.20-19.00	255,458 / 8,477	
Shi, 2020 <sup>94</sup>	High vs low	Intake	Vitamin B12	5	4.20-14.00	130,965 / 5,458	Low
Zhao, 2020 <sup>95</sup>	High vs low	Intake	Vitamin D	4	10.00-34.00	67,238 / 2,616	Low
			Magnesium	15	NR	692,998 / 20138	Critically low
<b>Macronutrients</b>							
Chen, 2013 <sup>96</sup>	High vs low	Intake	Fiber	6	6.00-8.00	314,864 / 8,920	Critically low
Cai, 2015 <sup>97</sup>	Dose-response	290 g/d	Carbohydrate	4	5.00-18.00	170,348 / 1,851	Critically low
Cheng, 2016 <sup>98</sup>	High vs low	Intake	Monounsaturated fatty acid	10	7.60-20.00	307,087 / 5,827	Critically low
Zhang, 2016 <sup>119</sup>	High vs low	Intake	Protein	12	5.00-26.00	528,982 / 1,1340	Critically low
Cheng, 2018 (2) <sup>100</sup>	High vs low	Intake	Cholesterol	7	6.10-15.00	269,777 / 4,604	Critically low
Kang, 2020 <sup>101</sup>	High vs low	Intake	Saturated fat	14	7.40-20.00	598,435 / 12,084	Low
<b>Factors of physical health management</b>							
Strazzullo, 2010 <sup>102</sup>	High vs low	With vs without	Overweight	22	7.00-28.00	2,159,827 / 2,7357	Critically low
			Obesity	22	7.00-28.00	1,800,924 / 22,279	
Li 2016 <sup>103</sup>	High vs low	Time	Shift-work	4	NR	488,699 / 4,231	Critically low
Kyu 2016 <sup>104</sup>	High vs low	Amount	Physical activity	26	5.80-16.40	1,573,231 / NR	Critically low
			PP	6	6.50-12.00	122,265 / 3,147	
Liu, 2016 <sup>105</sup>	Dose-response	10 mmHg increase	SBP	6	6.50-12.01	122,265 / 3,147	Critically low
			DBP	6	6.50-12.02	122,265 / 3,147	
			Sleep duration	12	7.80-14.70	528,653 / 12,193	
He, 2017 <sup>105</sup>	Dose-response	More than 7 h	Sleep duration	12	7.80-14.70	528,653 / 12,193	Critically low
Xu, 2018 <sup>107</sup>	High vs low	Current vs non	Oral contraceptives	5	3.00-11.00	NR / 1,951	Critically low

Islam, 2018 <sup>108</sup>	High vs low	With vs without	Anti-inflammatory drugs	5	2.00-13.00	1,578,679 / NR	Critically low
Pan, 2019 <sup>109</sup>	High vs low	Current vs non	Smoking	9	8.00-18.00	393,598 / 3,412	Critically low
Quan, 2019 <sup>110</sup>	High vs low	Speed	Walking pace	7	5.20-11.90	135,645 / 2,229	Critically low
<b>Factors of emotional health management</b>							
Dong, 2012 <sup>111</sup>	High vs low	Scores	Depression	17	3.00-29.00	206,641 / 6,086	Critically low
Valtorta, 2016 <sup>112</sup>	High vs low	Feeling	Social isolation	8	4.00-18.60	105,514 / 2,577	Critically low
Chen, 2019 <sup>113</sup>	High vs low	Feeling	Anger and hostility	7	2.00-8.50	52,277 / NR	Critically low
<b>Factors of environmental management</b>							
Dzhambov, 2016 <sup>114</sup>	Dose-response	10 dB	Road traffic noise	5	7.90-13.00	243,145 / 6,672	Critically low
Niu, 2021 <sup>115</sup>	Dose-response	10 µg/m <sup>3</sup>	PM <sub>2.5</sub>	8	1.00-21.00	558,698 / 26,200	
			PM <sub>10</sub>	6	4.00-21.00	1,097,987 / 23,122	Critically low
			NO <sub>2</sub>	4	4.00-25.00	1,112,832 / 18,336	

Abbreviations: AMSTAR, assess the methodological quality of systematic reviews; NR, not reported; DASH, dietary approaches to stop hypertension; PP, pulse pressure; SBP, systolic blood pressure; DBP, diastolic blood pressure.

**Table S6.** Modifiable factors and total stroke risk.

First Author, Year	Exposure	SHR (95% CI)	P value	I <sup>2</sup> (%)	τ <sup>2</sup>	95% PI	Egger's P				
							value	O	E	P	ESF
<b>Food factors</b>											
He, 2006 <sup>72, a</sup>	Fruit and vegetable	0.74 (0.69, 0.79)	< 0.0001	NA	NA	NA	NA	NA	NA	NA	NA
Strazzullo, 2009 <sup>55</sup>	Salt	1.25 (1.09, 1.44)	2.00×10 <sup>-3</sup>	56.70	0.02	(0.85, 1.85)	0.10	3	5.97	0.12	No
Martí nez-González, 2014 <sup>73</sup>	Olive oil	0.75 (0.59, 0.96)	0.02	34.50	0.02	NA	NA	2	NA	NA	NA
Shi, 2014 <sup>74</sup>	Legumes	0.95 (0.84, 1.07)	0.38	39.40	7.40×10 <sup>-3</sup>	(0.67, 1.33)	0.25	0	NA	NA	NA
Fang, 2015 <sup>75</sup>	Whole grain	0.90 (0.74, 1.10)	0.30	31.60	0.02	(0.56, 1.45)	0.72	1	0.92	0.93	No
Wu, 2015 <sup>76</sup>	Refined grain	1.01 (0.93, 1.11)	0.78	0.00	< 0.00001	(0.90, 1.14)	0.59	0	4.65	1.38×10 <sup>-3</sup>	Yes
	Milk	0.90 (0.83, 0.98)	0.02	80.00	0.01	(0.69, 1.19)	0.21	3	NA	NA	NA
	Low fat milk	0.94 (0.83, 1.08)	0.40	69.00	0.01	(0.54, 1.66)	0.61	1	NA	NA	NA
	High fat milk	1.11 (1.02, 1.20)	0.02	0.00	< 0.00001	(0.92, 1.32)	0.77	1	NA	NA	NA
	Yogurt	1.07 (0.98, 1.16)	0.15	0.00	< 0.00001	(0.61, 1.86)	0.31	0	NA	NA	NA
de Goede, 2016 <sup>77</sup>	Fermented dairy	0.92 (0.85, 1.01)	0.07	72.40	6.40×10 <sup>-3</sup>	(0.69, 1.24)	5.00×10 <sup>-3</sup>	2	NA	NA	NA
	Low fat dairy	0.97 (0.92, 1.02)	0.47	59.30	7.00×10 <sup>-4</sup>	(0.91, 1.08)	0.08	2	NA	NA	NA
	High fat dairy	0.97 (0.94, 1.00)	0.04	0.00	< 0.00001	(0.92, 1.02)	0.97	1	NA	NA	NA
Lou, 2016 <sup>78</sup>	Soy	0.94 (0.82, 1.08)	0.37	0.00	< 0.00001	(0.38, 2.29)	0.93	0	0.15	0.32	No
Shao, 2016 <sup>79</sup>	Nuts	0.89 (0.80, 0.98)	0.02	8.20	2.30×10 <sup>-3</sup>	(0.76, 1.04)	0.57	1	NA	NA	NA
	Cheese	0.93 (0.88, 0.99)	0.02	0.00	< 0.00001	(0.86, 1.01)	0.99	0	1.44	0.23	No
Gholami, 2017 <sup>3</sup>	Cream	0.91 (0.78, 1.07)	0.26	82.60	0.02	(0.14, 5.90)	0.35	1	0.15	1.28×10 <sup>-8</sup>	Yes
	Butter	0.97 (0.88, 1.08)	0.59	13.80	1.20×10 <sup>-3</sup>	(0.45, 2.12)	0.15	0	NA	NA	NA
	Total meat	1.18 (1.09, 1.28)	< 0.0001	0.00	< 0.00001	(0.99, 1.41)	0.50	2	NA	NA	NA

Kim, 2017 <sup>57</sup>	Red meat	1.11 (1.03, 1.20)	$6.00 \times 10^{-3}$	0.90	$1.00 \times 10^{-4}$	(0.98, 1.26)	0.75	2	NA	NA	NA
	Processed meat	1.16 (1.07, 1.26)	< 0.0001	15.90	$1.40 \times 10^{-3}$	(0.97, 1.39)	0.40	3	NA	NA	NA
	White meat	0.87 (0.78, 0.96)	$8.00 \times 10^{-3}$	0.00	< 0.00001	NA	NA	1	NA	NA	NA
Yuan, 2017 <sup>80</sup>	Chocolate	0.83 (0.77, 0.89)	< 0.0001	0.00	< 0.00001	(0.75, 0.92)	$2.00 \times 10^{-3}$	5	2.62	0.15	No
Mohammadi, 2018 <sup>81</sup>	Poultry	0.97 (0.85, 1.12)	0.71	50.40	0.01	(0.64, 1.47)	0.25	1	NA	NA	NA
	Fish	0.91 (0.86, 0.97)	$2.00 \times 10^{-3}$	47.60	0.01	(0.73, 1.13)	0.18	7	12.30	0.19	No
Zhao, 2019 <sup>82</sup>	Lean fish	0.84 (0.69, 1.02)	0.08	0.00	< 0.00001	(0.61, 1.15)	0.42	1	0.25	$3.10 \times 10^{-3}$	Yes
	Fatty fish	0.89 (0.76, 1.05)	0.17	29.50	0.01	(0.61, 1.30)	1.00	1	1.17	0.87	No
	Shellfish	0.97 (0.82, 1.15)	0.76	20.90	$7.90 \times 10^{-3}$	(0.66, 1.45)	0.39	1	1.16	0.87	No
Tang, 2020 <sup>116</sup>	Egg	0.96 (0.87, 1.06)	0.44	74.10	0.02	(0.69, 1.34)	0.81	5	7.03	0.46	No
<b>Beverages</b>											
Shen, 2012 <sup>84</sup>	Tea	0.80 (0.70, 0.91)	$1.00 \times 10^{-3}$	59.00	0.03	(0.52, 1.21)	0.49	6	NA	NA	NA
Larsson, 2016 <sup>117, a</sup>	Light-to-moderate Alcohol	0.98 (0.87, 1.10)	NA	NA	NA	NA	NA	NA	NA	NA	NA
	High-to-heavy Alcohol	1.32 (1.03, 1.70)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Shao, 2021 <sup>29</sup>	Coffee	0.86 (0.79, 0.94)	$1.00 \times 10^{-3}$	39.80	0.01	(0.66, 1.13)	0.06	7	2.24	0.02	Yes
<b>Dietary behaviours</b>											
Psaltopoulou, 2013 <sup>86</sup>	Mediterranean diet	0.80 (0.67, 0.95)	$9.00 \times 10^{-3}$	25.30	$8.20 \times 10^{-3}$	(0.46, 1.37)	0.76	1	1.00	1.00	No
Feng, 2018 <sup>87</sup>	DASH	0.87 (0.81, 0.93)	< 0.0001	48.90	$5.30 \times 10^{-3}$	(0.72, 1.04)	0.16	7	NA	NA	NA
<b>Micronutrients</b>											
Chen, 2013 <sup>88</sup>	Vitamin C	0.81 (0.73, 0.90)	< 0.0001	3.10	$1.00 \times 10^{-3}$	(0.71, 0.93)	0.62	3	0.75	$2.04 \times 10^{-3}$	Yes
Larsson, 2013 <sup>89, a</sup>	Calcium (< 700 mg/d)	0.82 (0.76, 0.88)	NA	0.00	NA	NA	NA	3	NA	NA	NA
	Calcium (> 700 mg/d)	1.03 (1.01, 1.06)	NA	0.00	NA	NA	NA	2	NA	NA	NA
Tang, 2016 <sup>90</sup>	Flavonoid	0.89 (0.82, 0.97)	$5.00 \times 10^{-3}$	0.00	< 0.00001	(0.81, 0.98)	0.24	1	NA	NA	NA
Vinceti, 2016 <sup>91</sup>	Potassium	0.91 (0.83, 1.00)	0.04	64.80	0.02	(0.66, 1.24)	0.67	6	2.18	0.04	Yes

Cheng, 2018 (1) <sup>92</sup>	Vitamin E	0.87 (0.73, 1.03)	0.09	35.70	0.02	(0.58, 1.29)	0.88	2	NA	NA	NA
Jayedi, 2019 <sup>118</sup>	Sodium	1.15 (1.07, 1.23)	< 0.0001	51.90	7.50×10 <sup>-3</sup>	(0.93, 1.41)	0.12	2	NA	NA	NA
Chen, 2020 <sup>93</sup>	Vitamin B6	0.85 (0.70, 1.03)	0.09	68.80	0.03	(0.46, 1.55)	0.95	1	3.66	0.02	Yes
	Folate	0.90 (0.80, 1.01)	0.07	37.60	0.01	(0.68, 1.19)	0.17	4	0.50	2.04×10 <sup>-12</sup>	Yes
Shi, 2020 <sup>94</sup>	Vitamin B12	1.02 (0.88, 1.19)	0.80	26.60	8.50×10 <sup>-3</sup>	(0.69, 1.50)	0.96	0	2.26	0.09	Yes
	Vitamin D	0.75 (0.57, 0.98)	0.04	49.00	0.03	(0.26, 2.03)	0.88	3	1.53	0.18	No
Zhao, 2020 <sup>95</sup>	Magnesium	0.89 (0.83, 0.94)	< 0.0001	1.20	2.00×10 <sup>-4</sup>	(0.82, 0.95)	5.00×10 <sup>-3</sup>	2	NA	NA	NA
<b>Macronutrients</b>											
Chen, 2013 <sup>96</sup>	Fiber	0.88 (0.78, 1.00)	0.05	40.00	9.00×10 <sup>-3</sup>	(0.64, 1.21)	0.50	1	NA	NA	NA
Cai, 2015 <sup>97</sup>	Carbohydrate	1.20 (0.95, 1.50)	0.12	50.00	0.03	(0.51, 2.81)	0.60	1	NA	NA	NA
Cheng, 2016 <sup>98</sup>	Monounsaturated fatty acid	0.89 (0.80, 0.98)	0.02	33.00	7.30×10 <sup>-3</sup>	(0.71, 1.12)	0.90	2	1.15	0.43	No
Zhang, 2016 <sup>119</sup>	Protein	0.96 (0.90, 1.03)	0.26	70.30	5.00×10 <sup>-3</sup>	(0.81, 1.15)	0.16	4	NA	NA	NA
Cheng, 2018 (2) <sup>100</sup>	Cholesterol	0.97 (0.77, 1.22)	0.80	56.00	0.04	(0.52, 1.80)	0.10	2	0.95	0.24	No
Kang, 2020 <sup>101</sup>	Saturated fat	0.88 (0.79, 0.98)	0.02	45.90	0.01	(0.67, 1.16)	0.46	5	NA	NA	NA
<b>Factors of physical health management</b>											
Strazzullo, 2010 <sup>102, a</sup>	Overweight	1.22 (1.05, 1.41)	0.01	89.00	NA	NA	NA	NA	NA	NA	NA
	Obesity	1.64 (1.36, 1.99)	< 0.0001	88.00	NA	NA	NA	NA	NA	NA	NA
Li 2016 <sup>103</sup>	Shift-work	1.04 (0.98, 1.10)	0.18	3.70	5.00×10 <sup>-4</sup>	(0.89, 1.22)	0.24	0	NA	NA	NA
Kyu 2016 <sup>104, a</sup>	Physical activity	0.80 (0.70, 0.90)	NA	NA	NA	NA	NA	NA	NA	NA	NA
	PP	1.14 (1.09, 1.20)	< 0.0001	35.40	1.10×10 <sup>-3</sup>	(1.02, 1.28)	0.47	5	NA	NA	NA
Liu, 2016 <sup>105</sup>	SBP	1.22 (1.11, 1.35)	< 0.0001	85.30	0.01	(0.88, 1.69)	0.33	5	NA	NA	NA
	DBP	1.23 (1.12, 1.35)	< 0.0001	71.00	8.10×10 <sup>-3</sup>	(0.93, 1.63)	0.60	5	NA	NA	NA
He, 2017 <sup>105</sup>	Sleep duration	1.38 (1.20, 1.58)	< 0.0001	67.30	0.04	(0.88, 2.15)	0.47	9	NA	NA	NA
Xu, 2018 <sup>107</sup>	Oral contraceptives	1.30 (0.59, 2.89)	0.52	85.60	0.70	(0.07, 25.26)	0.60	3	NA	NA	NA

Islam, 2018 <sup>108</sup>	Anti-inflammatory drugs	1.59 (1.13, 2.25)	$8.00 \times 10^{-3}$	89.70	0.12	(0.46, 5.47)	0.84	3	NA	NA	NA
Pan, 2019 <sup>109</sup>	Smoking	1.71 (1.37, 2.13)	< 0.0001	72.80	0.06	(0.89, 3.28)	0.07	6	NA	NA	NA
Quan, 2019 <sup>110</sup>	Walking pace	0.56 (0.48, 0.65)	< 0.0001	0.00	< 0.00001	(0.46, 0.69)	1.00	4	3.07	0.57	No
<b>Factors of emotional health management</b>											
Dong, 2012 <sup>111</sup>	Depression	1.32 (1.17, 1.48)	< 0.0001	55.20	0.01	(0.92, 1.88)	0.17	9	NA	NA	NA
Valtorta, 2016 <sup>112</sup>	Social isolation	1.32 (1.03, 1.69)	0.03	58.00	0.06	(0.66, 2.64)	0.04	4	0.72	$2.47 \times 10^{-6}$	Yes
Chen, 2019 <sup>113</sup>	Anger and hostility	1.08 (0.81, 1.45)	0.60	53.00	0.08	(0.48, 2.42)	0.07	2	1.83	0.91	No
<b>Factors of environmental management</b>											
Dzhambov, 2016 <sup>114</sup>	Road traffic noise	1.05 (0.96, 1.14)	0.31	83.60	$6.50 \times 10^{-3}$	(0.78, 1.40)	0.22	3	NA	NA	NA
Niu, 2021 <sup>115</sup>	PM <sub>2.5</sub>	1.14 (1.08, 1.21)	< 0.0001	40.20	$2.10 \times 10^{-3}$	(0.78, 1.40)	0.32	5	NA	NA	NA
	PM <sub>10</sub>	1.04 (0.96, 1.13)	0.35	60.40	$4.60 \times 10^{-3}$	(1.01, 1.30)	0.09	2	NA	NA	NA
	NO <sub>2</sub>	0.99 (0.95, 1.02)	0.51	0.00	0.00	(0.85, 1.28)	0.75	0	NA	NA	NA

Abbreviations: SHR, summary hazard ratio; O, observed number of significant; E, expected value of significant finding; CI, confidence interval; ESF, Excess significant finding; NA, Not Applicable; DASH, dietary approaches to stop hypertension; PP, pulse pressure; SBP, systolic blood pressure; DBP, diastolic blood pressure.

<sup>a</sup> Summary hazard ratio extracted from published meta-analysis, no re-analysis possible.

**Table S7.** Modifiable factors and ischemic stroke risk.

First Author, Year	Main Comparison	SHR (95% CI)	<i>P</i> value <sup>b</sup>	<i>I</i> <sup>2</sup>	$\tau^2$	95% PI	Egger's <i>P</i>				
							value	O	E	<i>P</i>	ESF
<b>Food factors</b>											
He, 2006 <sup>72, a</sup>	Fruit and vegetable	0.72 (0.66, 0.79)	NA	NA	NA	NA	NA	NA	NA	NA	NA
Strazzullo, 2009 <sup>55</sup>	Salt	1.42 (0.74, 2.75)	0.29	91.40	0.21	NA	NA	1	1.87	0.01	Yes
Shi, 2014 <sup>74</sup>	Legumes	0.91 (0.73, 1.13)	0.39	71.30	0.04	(0.35, 2.32)	0.17	1	NA	NA	NA
Fang, 2015 <sup>75</sup>	Whole grain	0.83 (0.62, 1.09)	0.18	38.20	0.02	(0.06, 11.92)	0.89	1	0.86	0.85	No
Wu, 2015 <sup>76</sup>	Refined grain	1.04 (0.91, 1.19)	0.56	0.00	0.00	(0.78, 1.39)	0.70	0	0.19	0.31	No
de Goede, 2016 <sup>77</sup>	Milk	0.92 (0.85, 1.00)	0.05	56.30	4.60×10 <sup>-3</sup>	(0.72, 1.19)	0.55	1	NA	NA	NA
	Yogurt	0.99 (0.71, 1.40)	0.97	32.80	0.03	NA	NA	0	NA	NA	NA
	Low fat dairy	0.93 (0.83, 1.05)	0.24	69.20	4.90×10 <sup>-3</sup>	NA	NA	1	NA	NA	NA
Shao, 2016 <sup>79</sup>	High fat dairy	0.96 (0.91, 1.01)	0.15	0.00	0.00	NA	NA	0	NA	NA	NA
	Nuts	0.97 (0.73, 1.28)	0.81	67.50	0.06	(0.30, 3.16)	0.08	2	NA	NA	NA
Gholami, 2017 <sup>3</sup>	Cheese	0.90 (0.82, 0.98)	0.01	0.00	0.00	NA	NA	0	0.45	0.29	No
	Cream	0.92 (0.71, 1.18)	0.50	92.00	0.03	NA	NA	1	0.24	1.30×10 <sup>-3</sup>	Yes
	Total meat	1.17 (1.07, 1.28)	1.00×10 <sup>-3</sup>	0.00	0.00	(0.96, 1.43)	0.47	2	NA	NA	NA
Kim, 2017 <sup>57</sup>	Red meat	1.14 (0.98, 1.31)	0.08	49.60	0.01	(0.74, 1.74)	0.98	2	NA	NA	NA
	Processed meat	1.17 (1.07, 1.28)	<0.0001	0.00	0.00	(1.01, 1.35)	0.22	2	NA	NA	NA
	White meat	0.90 (0.78, 1.03)	0.11	0.00	0.00	NA	NA	0	NA	NA	NA
Yuan, 2017 <sup>80</sup>	Chocolate	0.87 (0.78, 0.96)	7.00×10 <sup>-3</sup>	0.00	0.00	(0.44, 1.70)	0.28	0	0.83	0.25	No
Mohammadi, 2018 <sup>81</sup>	Poultry	0.91 (0.79, 1.04)	0.17	0.00	0.00	NA	NA	0	NA	NA	NA
Zhao, 2019 <sup>82</sup>	Fish	0.95 (0.87, 1.05)	0.31	42.50	0.01	(0.74, 1.23)	0.32	2	0.72	0.07	Yes
	Lean fish	0.73 (0.54, 1.00)	0.05	0.00	0.00	NA	NA	1	0.15	4.22×10 <sup>-9</sup>	Yes

	Fatty fish	0.87 (0.66, 1.13)	0.29	0.00	0.00	NA	NA	0	1.99	2.30×10 <sup>-115</sup>	Yes
Tang, 2020 <sup>116</sup>	Egg	0.93 (0.84, 1.04)	0.19	52.70	5.90×10 <sup>-3</sup>	(0.72, 1.21)	0.47	1	1.86	0.53	No
<b>Beverages</b>											
Shen, 2012 <sup>84</sup>	Tea	0.76 (0.63, 0.92)	5.00×10 <sup>-3</sup>	9.80	4.60×10 <sup>-3</sup>	NA	NA	1	NA	NA	NA
Larsson, 2016 <sup>117, a</sup>	Light-to-moderate	0.91 (0.88, 0.94)	NA	9.10	NA	NA	NA	NA	NA	NA	NA
	High-to-heavy Alcohol	1.09 (1.03, 1.16)	NA	.00	NA	NA	NA	NA	NA	NA	NA
Shao, 2021 <sup>29</sup>	Coffee	0.89 (0.70, 1.12)	0.32	73.80	0.04	(0.33, 2.41)	0.05	3	0.99	0.02	Yes
<b>Dietary behaviors</b>											
Psaltopoulou, 2013 <sup>86</sup>	Mediterranean diet	0.79 (0.52, 1.20)	0.27	73.00	0.10	(0.01, 96.96)	0.76	1	0.22	3.17×10 <sup>-4</sup>	Yes
Feng, 2018 <sup>87</sup>	DASH	0.88 (0.80, 0.98)	0.02	44.20	6.20×10 <sup>-3</sup>	(0.68, 1.15)	0.20	2	0.61	0.02	Yes
<b>Micronutrients</b>											
Chen, 2013 <sup>88</sup>	Vitamin C	0.78 (0.64, 0.95)	0.01	32.70	0.02	(0.46, 1.31)	1.78	2	3.12	0.68	No
Tang, 2016 <sup>90</sup>	Flavonoid	0.93 (0.80, 1.07)	0.30	0.00	0.00	(0.37, 2.35)	0.38	0	NA	NA	NA
Vinceti, 2016 <sup>91</sup>	Potassium	0.88 (0.82, 0.95)	1.00×10 <sup>-3</sup>	0.00	0.00	(0.80, 0.97)	0.82	2	0.93	0.22	No
Cheng, 2018 (1) <sup>92</sup>	Vitamin E	0.90 (0.73, 1.11)	0.31	14.40	6.30×10 <sup>-3</sup>	(0.16, 4.88)	0.89	0	NA	NA	NA
Jayedi, 2019 <sup>118</sup>	Sodium	1.42 (0.93, 2.16)	0.11	84.20	0.15	(0.21, 9.34)	0.29	2	NA	NA	NA
	Vitamin B6	1.08 (0.72, 1.64)	0.71	75.60	0.07	NA	NA	0	1.23	0.08	Yes
Chen, 2020 <sup>93</sup>	Folate	0.83 (0.73, 0.95)	5.00×10 <sup>-3</sup>	12.70	3.20×10 <sup>-3</sup>	(0.51, 1.69)	0.43	2	0.26	2.63×10 <sup>-11</sup>	Yes
	Vitamin B12	0.94 (0.74, 1.19)	0.60	42.50	0.02	(0.09, 9.75)	0.78	0	0.87	0.24	No
Shi, 2020 <sup>94</sup>	Vitamin D	0.73 (0.60, 0.89)	2.00×10 <sup>-3</sup>	.00	0.00	NA	NA	1	0.15	4.55×10 <sup>-9</sup>	Yes
Zhao, 2020 <sup>95</sup>	Magnesium	0.89 (0.82, 0.96)	4.00×10 <sup>-3</sup>	13.80	2.50×10 <sup>-3</sup>	(0.77, 1.03)	0.67	1	0.60	0.49	No
<b>Macronutrients</b>											
Chen, 2013 <sup>96</sup>	Fiber	0.84 (0.71, 1.00)	0.05	53.70	0.02	(0.43, 1.64)	0.22	1	NA	NA	NA
Cai, 2015 <sup>97</sup>	Carbohydrate	1.06 (0.76, 1.46)	0.74	45.80	0.04	(0.04, 27.54)	0.09	0	NA	NA	NA



Cheng, 2016 <sup>98</sup>	Monounsaturated fatty	0.92 (0.83, 1.01)	0.08	9.50	2.30×10 <sup>-3</sup>	(0.77, 1.09)	0.64	1	NA	NA	NA
Zhang, 2016 <sup>119</sup>	Protein	0.95 (0.81, 1.10)	0.47	75.30	0.03	(0.59, 1.50)	0.27	2	NA	NA	NA
Cheng, 2018 (2) <sup>100</sup>	Cholesterol	0.98 (0.72, 1.32)	0.87	71.40	0.07	(0.36, 2.61)	0.16	2	NA	NA	NA
Kang, 2020 <sup>101</sup>	Saturated fat	0.89 (0.82, 0.97)	0.01	17.70	3.50×10 <sup>-3</sup>	(0.75, 1.06)	0.76	3	NA	NA	NA
<b>Factors of physical health management</b>											
Li 2016 <sup>103</sup>	Shift-work	1.18 (0.81, 1.74)	0.39	66.40	0.06	NA	NA	0	NA	NA	NA
He, 2017 <sup>105</sup>	Sleep duration	1.60 (1.32, 1.93)	< 0.0001	54.10	0.02	(0.77, 3.32)	0.59	3	NA	NA	NA
Xu, 2018 <sup>107</sup>	Oral contraceptives	2.25 (0.44, 11.6)	0.33	77.60	1.12	NA	NA	1	NA	NA	NA
Pan, 2019 <sup>109</sup>	Smoking	1.56 (1.34, 1.81)	< 0.0001	.00	0.00	(1.26, 1.93)	0.46	4	NA	NA	NA
Quan, 2019 <sup>110</sup>	Walking pace	0.63 (0.47, 0.85)	3.00×10 <sup>-3</sup>	48.60	0.05	(0.20, 1.96)	1.00	2	2.23	0.84	No
<b>Factors of emotional health management</b>											
Dong, 2012 <sup>111</sup>	Depression	1.44 (1.04, 2.01)	0.03	41.40	0.04	(0.05, 39.12)	0.26	2	NA	NA	NA

Abbreviations: SHR, summary hazard ratio; O, observed number of significant; E, expected value of significant finding; CI, confidence interval; ESF, Excess significant finding; NA, Not Applicable; DASH, dietary approaches to stop hypertension; PP, pulse pressure; SBP, systolic blood pressure; DBP, diastolic blood pressure.

<sup>a</sup> Summary hazard ratio extracted from published meta-analysis, no re-analysis possible.

<sup>b</sup>  $P < 0.025$  was significant after Bonferroni correction.

**Table S8.** Modifiable factors and hemorrhagic stroke risk.

First Author, Year	Main Comparison	SHR (95% CI)	<i>P</i> value <sup>b</sup>	<i>I</i> <sup>2</sup>	$\tau^2$	95% PI	Egger's				
							<i>P</i> value	O	E	<i>P</i> value	ESF
<b>Food factors</b>											
He, 2006 <sup>72, a</sup>	Fruit and vegetable	0.73 (0.61, 0.87)	NA	NA	NA	NA	NA	N	NA	NA	NA
Strazzullo, 2009 <sup>55</sup>	Salt	1.15 (0.93, 1.42)	0.20	0.00	0.00	NA	NA	0	0.44	0.29	No
Shi, 2014 <sup>74</sup>	Legumes	1.16 (0.93, 1.44)	0.20	0.00	0.00	(0.27, 4.87)	0.09	0	NA	NA	NA
Fang, 2015 <sup>75</sup>	Whole grain	1.24 (0.73, 2.10)	0.42	0.00	0.00	NA	NA	0	0.18	0.31	No
Wu, 2015 <sup>76</sup>	Refined grain	0.97 (0.82, 1.17)	0.78	0.00	0.00	NA	NA	0	0.14	0.31	No
de Goede, 2016 <sup>77</sup>	Milk	0.95 (0.73, 1.24)	0.69	0.86	0.06	(0.28, 3.21)	0.12	2	NA	NA	NA
	Low fat dairy	0.99 (0.88, 1.12)	0.89	0.00	0.00	NA	NA	0	NA	NA	NA
	High fat dairy	1.05 (0.93, 1.19)	0.44	0.00	0.00	NA	NA	0	NA	NA	NA
Shao, 2016 <sup>79</sup>	Nuts	1.16 (0.53, 2.51)	0.71	80.00	0.26	NA	NA	0	NA	NA	NA
Gholami, 2017 <sup>3</sup>	Cheese	0.95 (0.78, 1.15)	0.57	0.00	0.00	NA	NA	0	0.25	0.31	No
	Cream	0.89 (0.73, 1.09)	0.25	0.00	0.00	NA	NA	0	0.15	0.31	No
	Total meat	1.18 (0.83, 1.68)	0.36	59.60	0.07	(0.29, 4.80)	0.88	1	NA	NA	NA
Kim, 2017 <sup>57</sup>	Red meat	1.01 (0.81, 1.27)	0.90	4.60	$2.60 \times 10^{-3}$	(0.59, 1.74)	0.79	0	NA	NA	NA
	Processed meat	1.19 (0.96, 1.48)	0.12	2.90	$1.50 \times 10^{-3}$	(0.72, 1.98)	0.70	0	NA	NA	NA
	White meat	0.70 (0.51, 0.97)	0.03	0.00	0.00	NA	NA	0	NA	NA	NA
Yuan, 2017 <sup>80</sup>	Chocolate	0.83 (0.71, 0.97)	0.02	0.00	0.00	(0.31, 2.24)	0.42	0	1.08	0.20	No
Mohammadi, 2018 <sup>81</sup>	Poultry	0.86 (0.62, 1.22)	0.40	34.70	0.02	NA	NA	0	NA	NA	NA
Zhao, 2019 <sup>82</sup>	Fish	0.88 (0.80, 0.97)	0.01	1.00	$3.00 \times 10^{-4}$	(0.79, 0.99)	0.99	2	2.90	0.67	No
Tang, 2020 <sup>116</sup>	Egg	1.03 (0.72, 1.46)	0.89	89.60	0.11	(0.31, 3.41)	0.59	2	3.80	0.09	Yes
<b>Beverages</b>											

Shen, 2012 <sup>84</sup>	Tea	0.77 (0.40, 1.49)	0.44	62.60	0.15	NA	NA	0	NA	NA	NA
Larsson, 2016 <sup>117, a</sup>	Light-to-moderate Alcohol	1.04 (0.86, 1.27)	NA	72.10	NA	NA	NA	N	NA	NA	NA
	High-to-heavy Alcohol	1.49 (1.26, 1.76)	NA	0.00	NA	NA	NA	N	NA	NA	NA
Shao, 2021 <sup>29</sup>	Coffee	1.13 (0.59, 2.16)	0.72	73.00	0.22	NA	0.61	1	0.16	5.02×10 <sup>-8</sup>	Yes
<b>Dietary behaviors</b>											
Psaltopoulou, 2013 <sup>86</sup>	Mediterranean diet	0.84 (0.61, 1.14)	0.26	0.00	0.00	NA	NA	0	0.50	0.28	No
Feng, 2018 <sup>87</sup>	DASH	0.85 (0.73, 0.99)	0.04	0.00	0.00	(0.60, 1.20)	0.17	0	0.66	0.29	No
<b>Micronutrients</b>											
Chen, 2013 <sup>88</sup>	Vitamin C	0.94 (0.52, 1.69)	0.84	55.20	0.15	(0.00, 474.69)	0.46	0	0.83	0.25	No
Tang, 2016 <sup>90</sup>	Flavonoid	0.89 (0.59, 1.32)	0.55	53.30	0.07	(0.01, 58.29)	0.34	0	NA	NA	NA
Vinceti, 2016 <sup>91</sup>	Potassium	0.92 (0.80, 1.07)	0.29	0.00	0.00	(0.75, 1.14)	0.36	0	1.07	0.27	No
Cheng, 2018 (1) <sup>92</sup>	Vitamin E	0.89 (0.50, 1.58)	0.70	47.80	0.09	NA	NA	0	NA	NA	NA
Jayedi, 2019 <sup>118</sup>	Sodium	1.20 (0.99, 1.46)	0.07	0.00	0.00	(0.78, 1.85)	0.10	0	NA	NA	NA
	Vitamin B6	0.91 (0.71, 1.16)	0.45	0.00	0.00	NA	NA	0	0.29	0.31	No
Chen, 2020 <sup>93</sup>	Folate	0.91 (0.68, 1.23)	0.55	9.20	0.01	(0.40, 2.07)	0.49	0	0.31	0.31	No
	Vitamin B12	1.08 (0.87, 1.36)	0.48	0.00	0.00	(0.25, 4.62)	0.56	0	0.19	0.31	No
Shi, 2020 <sup>94</sup>	Vitamin D	0.69 (0.36, 1.29)	0.24	80.00	0.17	NA	NA	1	1.53	0.40	No
Zhao, 2020 <sup>95</sup>	Magnesium	0.93 (0.82, 1.06)	0.28	0.00	0.00	(0.79, 1.09)	0.62	0	1.64	0.23	No
<b>Macronutrients</b>											
Chen, 2013 <sup>96</sup>	Fiber	0.86 (0.70, 1.06)	0.15	0.00	0.00	(0.22, 3.35)	0.82	0	NA	NA	NA
Cai, 2015 <sup>97</sup>	Carbohydrate	1.58 (1.15, 2.18)	5.00×10 <sup>-3</sup>	0.00	0.00	(0.20, 12.57)	0.76	2	NA	NA	NA
Cheng, 2016 <sup>98</sup>	Monounsaturated fatty acid	0.68 (0.48, 0.96)	0.03	0.00	0.00	(0.32, 1.43)	0.76	0	NA	NA	NA
Zhang, 2016 <sup>119</sup>	Protein	1.03 (0.96, 1.11)	0.37	2.70	7.00×10 <sup>-4</sup>	(0.92, 1.16)	0.09	0	NA	NA	NA
Cheng, 2018 (2) <sup>100</sup>	Cholesterol	0.96 (0.70, 1.31)	0.78	0.00	0.00	(0.48, 1.92)	0.93	0	0.20	0.31	No

Kang, 2020 <sup>101</sup>	Saturated fat	0.58 (0.40, 0.84)	4.00×10 <sup>-3</sup>	49.20	0.07	(0.14, 2.34)	0.94	2	NA	NA	NA
<b>Factors of emotional health management</b>											
He, 2017 <sup>105</sup>	Sleep duration	1.19 (0.97, 1.48)	0.10	0.00	0.00	(0.75, 1.90)	0.79	0	NA	NA	NA
Xu, 2018 <sup>107</sup>	Oral contraceptives	1.10 (0.42, 2.88)	0.84	85.40	0.99	(0.03, 37.62)	NA	2	NA	NA	NA
Pan, 2019 <sup>109</sup>	Smoking	1.32 (1.06, 1.64)	0.01	35.70	0.03	(0.80, 2.18)	0.21	1	NA	NA	NA
Quan, 2019 <sup>110</sup>	Walking pace	0.47 (0.27, 0.82)	8.00×10 <sup>-3</sup>	14.10	0.03	NA	NA	1	0.55	0.37	No

Abbreviations: SHR, summary hazard ratio; O, observed number of significant; E, expected value of significant finding; CI, confidence interval; ESF, Excess significant finding; NA, Not Applicable; DASH, dietary approaches to stop hypertension; PP, pulse pressure; SBP, systolic blood pressure; DBP, diastolic blood pressure.

<sup>a</sup> Summary hazard ratio extracted from published meta-analysis, no re-analysis possible.

<sup>b</sup>  $P < 0.025$  was significant after Bonferroni correction.

**Table S9.** Detailed evaluation of the methodological quality with AMSTAR 2.

First Author, Year	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	All
He, 2006 <sup>72</sup>	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Critically low
Strazzullo, 2009 <sup>55</sup>	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	Critically low
Strazzullo, 2010 <sup>102</sup>	Yes	No	Yes	Partial Yes	No	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	Critically low
Shen, 2012 <sup>84</sup>	Yes	No	Yes	No	No	Yes	No	Yes	Yes	No	Yes	No	No	Yes	Yes	No	Critically low
Dong, 2012 <sup>111</sup>	Yes	No	Yes	No	No	Yes	No	Yes	Partial Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Larsson, 2013 <sup>89</sup>	Yes	No	Yes	Yes	No	Yes	No	Yes	No	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Chen, 2013 (1) <sup>88</sup>	Yes	No	Yes	Partial Yes	No	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	Critically low
Chen, 2013 (2) <sup>96</sup>	Yes	No	Yes	No	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Critically low
Psaltopoulou, 2013 <sup>86</sup>	Yes	No	Yes	No	No	Yes	No	Yes	Yes	No	Yes	No	No	Yes	Yes	No	Critically low
Marí nez-Gonza ´lez, 2014 <sup>73</sup>	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Shi, 2014 <sup>74</sup>	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Cai, 2015 <sup>97</sup>	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Fang, 2015 <sup>75</sup>	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Wu, 2015 <sup>76</sup>	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
de Goede, 2016 <sup>77</sup>	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Larsson, 2016 <sup>117</sup>	Yes	No	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	Critically low
Cheng, 2016 <sup>98</sup>	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	Critically low
Lou, 2016 <sup>78</sup>	Yes	No	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Shao, 2016 <sup>79</sup>	Yes	No	No	Yes	No	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	No	Critically low
Tang, 2016 <sup>90</sup>	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Vinceti, 2016 <sup>91</sup>	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low

Zhang, 2016 <sup>119</sup>	Yes	No	Yes	Yes	No	No	No	Yes	Yes	No	Yes	No	No	Yes	Yes	Yes	Critically low
Liu, 2016 <sup>105</sup>	Yes	No	Yes	Partial Yes	No	Yes	No	Partial	Yes	No	Yes	No	No	Yes	No	Yes	Critically low
Valtorta, 2016 <sup>112</sup>	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Critically low
Kyu, 2016 <sup>104</sup>	Yes	No	Yes	Partial Yes	No	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Li 2016 <sup>103</sup>	Yes	No	Yes	Yes	No	No	No	Partial	Yes	No	Yes	No	No	Yes	No	Yes	Critically low
Dzhambov, 2016 <sup>114</sup>	Yes	No	Yes	Yes	Yes	No	No	Partial	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Gholami, 2017 <sup>3</sup>	Yes	No	Yes	No	No	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Kim, 2017 <sup>57</sup>	Yes	No	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Yuan, 2017 <sup>80</sup>	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Mohammadi, 2018 <sup>81</sup>	Yes	No	Yes	Partial Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
He, 2017 <sup>105</sup>	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Critically low
Cheng, 2018 (1) <sup>92</sup>	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Cheng, 2018 (2) <sup>100</sup>	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Feng, 2018 <sup>87</sup>	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Xu, 2018 <sup>107</sup>	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	Critically low
Islam, 2018 <sup>108</sup>	Yes	No	Yes	Yes	Yes	Yes	No	Partial	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Jayedi, 2019 <sup>118</sup>	Yes	No	No	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	Critically low
Zhao, 2019 <sup>82</sup>	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Low
Pan, 2019 <sup>109</sup>	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Chen, 2019 <sup>113</sup>	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Partial Yes	No	Yes	No	Yes	No	No	Yes	Critically low
Quan, 2019 <sup>110</sup>	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Chen, 2020 <sup>93</sup>	Yes	No	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Kang, 2020 <sup>101</sup>	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Low
Shi, 2020 <sup>94</sup>	Yes	Yes	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Low

Tang, 2020 <sup>90</sup>	Yes	No	Yes	Yes	No	No	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Zhao, 2020 <sup>95</sup>	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Shao, 2021 <sup>29</sup>	Yes	No	Yes	Partial Yes	No	No	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low
Niu, 2021 <sup>115</sup>	Yes	No	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Critically low

AMSTAR, assess the methodological quality of systematic reviews; Q: Question; Q1: Did the research questions and inclusion criteria for the review include the components of PICO?, Q2: Did the report of the review contain an explicit statement that the review methods were established prior to the conduct of the review and did the report justify any significant deviations from the protocol?, Q3: Did the review authors explain their selection of the study designs for inclusion in the review?, Q4: Did the review authors use a comprehensive literature search strategy?, Q5: Did the review authors perform study selection in duplicate?, Q6: Did the review authors perform data extraction in duplicate?, Q7: Did the review authors provide a list of excluded studies and justify the exclusions?, Q8: Did the review authors describe the included studies in adequate detail?, Q9: Did the review authors use a satisfactory technique for assessing the risk of bias (RoB) in individual studies that were included in the review?, Q10: Did the review authors report on the sources of funding for the studies included in the review?, Q11: If meta-analysis was performed, did the review authors use appropriate methods for statistical combination of results?, Q12: If meta-analysis was performed, did the review authors assess the potential impact of RoB in individual studies on the results of the meta-analysis or other evidence synthesis?, Q13: Did the review authors account for RoB in primary studies when interpreting/discussing the results of the review?, Q14: Did the review authors provide a satisfactory explanation for, and discussion of, any heterogeneity observed in the results of the review?, Q15: If they performed quantitative synthesis did the review authors carry out an adequate investigation of publication bias (small study bias) and discuss its likely impact on the results of the review?, Q16: Did the review authors report any potential sources of conflict of interest, including any funding they received for conducting the review?

**Table S10.** Sensitivity analyses for associations with strong, high suggestive or suggestive evidence.

Exposure	First Author, Year	No. of primary cohort study	Main Comparison	Credibility assessment									
				SHR (95% CI)	<i>P</i> value	<i>I</i> <sup>2</sup> (%)	$\tau^2$	95% PI	Egger's <i>P</i> value	O	E	<i>P</i>	ESF
<b>Exclusion of primary studies with number of study participants lower than 25th percentile (applicable to those meta-analyses with evidence of small-study effects in primary)<sup>a</sup></b>													
Chocolate	Yuan, 2017 <sup>80</sup>	1	High vs low	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Magnesium	Zhao, 2020 <sup>95</sup>	0	High vs low	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Smoking	Pan, 2019 <sup>109</sup>	0	High vs low	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>Primary studies adjusted for confounding variables</b>													
Total meat	Kim, 2017 <sup>57</sup>	4	High vs low	1.18 (1.09, 1.28)	< 0.0001	0.00	< 0.00001	(0.99, 1.41)	0.50	2	NA	NA	NA
Processed meat		5	High vs low	1.16 (1.07, 1.26)	< 0.0001	16.00	1.40×10 <sup>-3</sup>	(0.97, 1.39)	0.40	3	NA	NA	NA
Processed meat (IS)	Kim, 2017 <sup>57</sup>	5	High vs low	1.17 (1.07, 1.28)	< 0.0001	0.00	0.00	(1.01, 1.35)	0.22	2	NA	NA	NA
Chocolate	Yuan, 2017 <sup>80</sup>	7	High vs low	0.83 (0.77, 0.89)	< 0.0001	0.00	< 0.00001	(0.75, 0.92)	2.00×10 <sup>-3</sup>	5	2.62	0.15	No
DASH	Feng, 2018 <sup>87</sup>	6	High vs low	0.87 (0.79, 0.96)	5.00×10 <sup>-3</sup>	65.00	8.70×10 <sup>-3</sup>	(0.65, 1.17)	0.30	4	NA	NA	NA
Vitamin C	Chen, 2013 <sup>88</sup>	6	High vs low	0.81 (0.72, 0.91)	< 0.0001	0.00	0.00	(0.69, 0.95)	0.78	1	NA	NA	NA
Sodium	Jayedi, 2019 <sup>118</sup>	10	Dose-response	1.19 (1.09, 1.31)	< 0.0001	54.00	0.01	(0.92, 1.54)	0.18	5	NA	NA	NA
Magnesium	Zhao, 2020 <sup>95</sup>	12	High vs low	0.90 (0.85, 0.96)	2.00×10 <sup>-3</sup>	0.00	0.00	(0.84, 0.97)	0.07	1	NA	NA	NA
Obesity <sup>b</sup>	Strazzullo, 2010 <sup>102</sup>	22	With vs without	1.64 (1.36, 1.99)	< 0.0001	88.00	NA	NA	NA	NA	NA	NA	NA
PP		6		1.14 (1.09, 1.20)	< 0.0001	35.00	1.10×10 <sup>-3</sup>	(1.02, 1.28)	0.47	5	NA	NA	NA
SBP	Liu, 2016 <sup>105</sup>	6	Dose-response	1.22 (1.11, 1.35)	< 0.0001	85.00	0.01	(0.88, 1.69)	0.33	5	NA	NA	NA
DBP		6		1.23 (1.12, 1.35)	< 0.0001	71.00	8.10×10 <sup>-3</sup>	(0.93, 1.63)	0.60	5	NA	NA	NA
Sleep duration	He, 2017 <sup>105</sup>	11	Dose-response	1.37 (1.19, 1.57)	< 0.0001	70.00	0.04	(0.86, 2.17)	0.57	8	NA	NA	NA
Sleep duration (IS)	He, 2017 <sup>105</sup>	4	Dose-response	1.60 (1.32, 1.93)	< 0.0001	54.1	0.02	(0.77, 3.32)	0.59	3	NA	NA	NA



Smoking	Pan, 2019 <sup>109</sup>	6	High vs low	1.35 (1.22, 1.49)	< 0.0001	0.00	0.00	(1.17, 1.55)	0.57	3	4.86	0.08	Yes
Smoking (IS)	Pan, 2019 <sup>109</sup>	4	High vs low	1.49 (1.28, 1.74)	< 0.0001	0.00	0.00	(1.06, 2.09)	0.18	3	1.74	0.27	No
Depression	Dong, 2012 <sup>111</sup>	7	High vs low	1.47 (1.18, 1.84)	1.00×10 <sup>-3</sup>	64.50	0.05	(0.76, 2.83)	0.08	5	NA	NA	NA
PM <sub>2.5</sub>	Niu, 2021 <sup>115</sup>	6	Dose-response	1.15 (1.10, 1.21)	< 0.0001	32.60	1.10×10 <sup>-3</sup>	(1.03, 1.29)	0.07	5	NA	NA	NA
<b>Primary studies with high quality</b>													
Total meat <sup>c</sup>	Kim, 2017 <sup>57</sup>	4	High vs low	1.18 (1.09, 1.28)	< 0.0001	0.00	< 0.00001	(0.99, 1.41)	0.50	2	NA	NA	NA
Processed meat <sup>c</sup>		5	High vs low	1.16 (1.07, 1.26)	< 0.0001	15.90	1.40×10 <sup>-3</sup>	(0.97, 1.39)	0.40	3	NA	NA	NA
Processed meat (IS) <sup>c</sup>	Kim, 2017 <sup>57</sup>	5	High vs low	1.17 (1.07, 1.28)	< 0.0001	0.00	0.00	(1.01, 1.35)	0.22	2	NA	NA	NA
Chocolate <sup>c</sup>	Yuan, 2017 <sup>80</sup>	7	High vs low	0.83 (0.77, 0.89)	< 0.0001	0.00	< 0.00001	(0.75, 0.92)	2.00×10 <sup>-3</sup>	5	2.62	0.15	No
DASH <sup>c</sup>	Feng, 2018 <sup>87</sup>	12	High vs low	0.87 (0.81, 0.93)	< 0.0001	48.90	5.30×10 <sup>-3</sup>	(0.72, 1.04)	0.16	7	NA	NA	NA
Vitamin C <sup>d</sup>	Feng, 2018 <sup>20</sup>	12	High vs low	0.81 (0.73, 0.90)	< 0.0001	3.10	1.00×10 <sup>-3</sup>	(0.71, 0.93)	0.62	3	0.75	2.04×10 <sup>-3</sup>	Yes
Sodium <sup>c</sup>	Jayedi, 2019 <sup>118</sup>	13	Dose-response	1.15 (1.07, 1.23)	< 0.0001	51.90	7.50×10 <sup>-3</sup>	(0.93, 1.41)	0.12	2	NA	NA	NA
Magnesium <sup>c</sup>	Zhao, 2020 <sup>95</sup>	15	High vs low	0.89 (0.83, 0.94)	< 0.0001	1.20	2.00×10 <sup>-4</sup>	(0.82, 0.95)	5.00×10 <sup>-3</sup>	2	NA	NA	NA
Obesity <sup>b</sup>	Strazzullo, 2010 <sup>102</sup>	22	With vs without	1.64 (1.36, 1.99)	< 0.0001	88.00	NA	NA	NA	NA	NA	NA	NA
PP <sup>c</sup>		6		1.14 (1.09, 1.20)	< 0.0001	35.40	1.10×10 <sup>-3</sup>	(1.02, 1.28)	0.47	5	NA	NA	NA
SBP <sup>c</sup>	Liu, 2016 <sup>105</sup>	6	Dose-response	1.22 (1.11, 1.35)	< 0.0001	85.30	0.01	(0.88, 1.69)	0.33	5	NA	NA	NA
DBP <sup>c</sup>		6		1.23 (1.12, 1.35)	< 0.0001	71.00	8.10×10 <sup>-3</sup>	(0.93, 1.63)	0.60	5	NA	NA	NA
Sleep duration	He, 2017 <sup>105</sup>	10	Dose-response	1.37 (1.18, 1.59)	< 0.0001	72.30	0.04	(0.83, 2.24)	0.69	8	NA	NA	NA
Sleep duration (IS) <sup>c</sup>	He, 2017 <sup>105</sup>	4	Dose-response	1.60 (1.32, 1.93)	< 0.0001	54.10	0.02	(0.77, 3.32)	0.59	3	NA	NA	NA
Smoking <sup>d</sup>	Pan, 2019 <sup>109</sup>	9	High vs low	1.71 (1.37, 2.13)	< 0.0001	72.80	0.06	(0.89, 3.28)	0.07	6	NA	NA	NA
Smoking (IS) <sup>d</sup>	Pan, 2019 <sup>109</sup>	6	High vs low	1.56 (1.34, 1.81)	< 0.0001	0.00	0.00	(1.26, 1.93)	0.46	4	NA	NA	NA
Walking pace <sup>e</sup>	Quan, 2019 <sup>110</sup>	7	High vs low	0.56 (0.48, 0.65)	< 0.0001	0.00	< 0.00001	(0.46, 0.69)	1.00	4	3.07	0.57	No
Depression <sup>d</sup>	Dong, 2012 <sup>111</sup>	17	High vs low	1.32 (1.17, 1.48)	< 0.0001	55.20	0.01	(0.92, 1.88)	0.17	9	NA	NA	NA
PM <sub>2.5</sub> <sup>c</sup>	Niu, 2021 <sup>115</sup>	8	Dose-response	1.14 (1.08, 1.21)	< 0.0001	40.20	2.10×10 <sup>-3</sup>	(1.01, 1.30)	0.32	5	NA	NA	NA

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Abbreviations: SHR, summary hazard ratio; O, observed number of significant; E, expected value of significant finding; CI, confidence interval; ESF, Excess significant finding; IS, ischemic stroke; NA, Not Applicable;

DASH, dietary approaches to stop hypertension; PP, pulse pressure; SBP, systolic blood pressure; DBP, diastolic blood pressure.

<sup>a</sup>Not performed due to limited number of primary studies.

<sup>b</sup>Data extracted from published meta-analysis, no re-analysis possible.

<sup>c</sup>Meta-analysis reported all good-quality studies.

<sup>d</sup>No information on quality assessment of primary studies.

**Table S11.** Regional distribution of strong, highly suggestive and suggestive evidence.

First Author, Year	Main Comparison	Exposure	Primary analysis	QES	Countries or regions
<b>Food factors</b>					
Kim, 2017 <sup>57</sup>	High vs low	Total meat	highly suggestive	highly suggestive	Sweden; USA
		Processed meat	highly suggestive	highly suggestive	Spain; Sweden; USA
Kim, 2017 <sup>57</sup> (IS)	High vs low	Processed meat	suggestive	suggestive	Spain; Sweden; USA
Yuan, 2017 <sup>80</sup>	High vs low	Chocolate	highly suggestive	highly suggestive	Germany; Japan; Sweden; UK; USA
<b>Dietary behaviours</b>					
Feng, 2018 <sup>87</sup>	High vs low	DASH	suggestive	weak	Multinational <sup>a</sup>
<b>Micronutrients</b>					
Chen, 2013 <sup>88</sup>	High vs low	Vitamin C	suggestive	suggestive	Multinational
Jayedi, 2019 <sup>118</sup>	Dose-response	Sodium	highly suggestive	highly suggestive	Multinational
Zhao, 2020 <sup>95</sup>	High vs low	Magnesium	suggestive	weak	Multinational
<b>Factors of physical health Management</b>					
Strazzullo, 2010 <sup>102</sup>	High vs low	Obesity	highly suggestive	highly suggestive	China; Finland; Sweden; USA
Liu, 2016 <sup>105</sup>	Dose-response	PP	highly suggestive	highly suggestive	China; Denmark; Japan; USA
		SBP	highly suggestive	highly suggestive	China; Denmark; Japan; USA
		DBP	highly suggestive	highly suggestive	China; Denmark; Japan; USA
		sleep duration	highly suggestive	highly suggestive	Multinational
He, 2017 <sup>106</sup>	Dose-response	sleep duration	highly suggestive	highly suggestive	Multinational
He, 2017 <sup>106</sup> (IS)	Dose-response	sleep duration	highly suggestive	highly suggestive	China; Japan
Pan, 2019 <sup>109</sup>	High vs low	smoking	highly suggestive	highly suggestive	China; Japan; Norway; Sweden; USA
Pan, 2019 <sup>109</sup> (IS)	High vs low	smoking	suggestive	suggestive	China; Japan; Sweden; USA
Quan, 2019 <sup>110</sup>	High vs low	Walking pace	strong	strong	UK; USA
<b>Factors of emotional health Management</b>					

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Dong, 2012 <sup>111</sup>	High vs low	Depression	suggestive	weak	Finland; Japan; Netherlands; Sweden; USA
<b>Factors of environmental management</b>					
Niu, 2021 <sup>115</sup>	Dose-response	PM <sub>2.5</sub>	suggestive	suggestive	Multinational

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Abbreviations: QES, quality of evidence after sensitivity analyses.

<sup>a</sup>More than five countries.

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