

Supplementary materials

Table S1. *The definitions of metrics and risk factors.*

Deaths	Number of deaths in the population	Proportion of deaths for a particular cause relative to deaths from all causes	Deaths per 100,000 population
Disability adjusted life years (DALYs)	Number of DALYs in the population	Proportion of DALYs for a particular cause relative to DALYs for all causes	DALYs per 100,000 population
Years of life lost (YLLs)	Number of YLLs in the population	Proportion of YLLs for a particular cause relative to YLLs for all causes	YLLs per 100,000 population
Years lived with disability (YLDs)	Number of YLDs in the population	Proportion of YLDs for a particular cause relative to YLDs for all causes	YLDs per 100,000 population
Prevalence	Total number of cases in the population	Proportion of total cases of a particular cause relative to cases from all causes	Total cases per 100,000 population
Incidence	Number of new cases in the population	Proportion of new cases of a particular cause relative to cases from all causes	New cases per 100,000 population

Table S1b The definition of risk factors

Risk factors	Defintion
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smoking	prevalence of current smoker and the prevalence of former smoker were estimated. Current smokers: individuals who currently use any smoked tobacco product on a daily or occasional basis. Former smokers: individuals who quit using all smoked tobacco products for at least six months.
Diet low in milk	Average daily consumption (in grams per day) of dairy milk including non-fat, low-fat, and full-fat milk, but excluding plant-based milks, fermented milk products such as buttermilk, and other dairy products such as cheese. Less than 280g/day for males, 500g/day for females.
Diet low in calcium	Average daily consumption (in grams per day) of calcium from all sources, including milk, yoghurt, and cheese. Less than 0.72g/day for males, 1.1g/day for females

Table S2a. Percentage of the PCa incidence attributable to each component in decomposition analysis

Location	Aging(%)	Population(%)	Epidemiological change(%)
Republic of Korea	11.03	14.01	74.96
Democratic People's Republic of Korea	-33.41	90.19	43.22
Mongolia	19.70	36.19	44.11

Taiwan (Province of China)	16.63	9.21	74.16
Japan	22.09	0.83	76.27
China	1.90	35.06	63.04

Table S2b. Percentage of the PCa death attributable to each component in decomposition analysis

Location	Aging(%)	Population(%)	Epidemiological change(%)
Republic of Korea	41.66	19.33	39.01
Democratic People's Republic of Korea	-98.70	175.60	23.10
Mongolia	33.16	35.08	31.75
Taiwan (Province of China)	29.41	11.24	59.35
Japan	61.24	0.77	37.99
China	-16.27	49.96	66.31

A positive value indicates the factor contributed to an increase in burden, and a negative value indicates the factor reduced the net burden. PCa, prostate cancer