

### **Supplementary material**

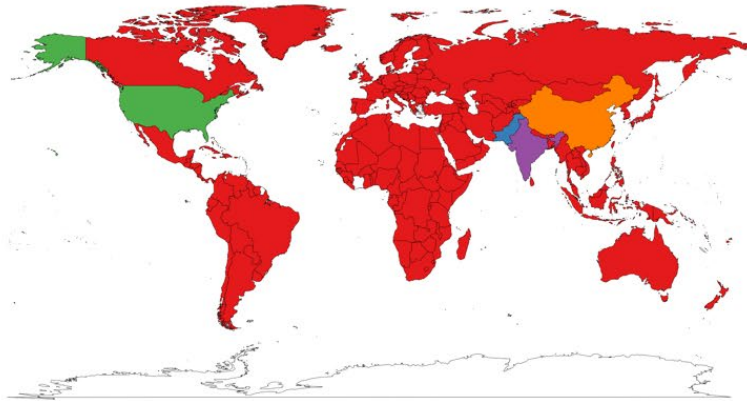
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Supplement to: B Jiang, J Li, X Sun, et al. Obesity-driven thyroid cancer burden in middle-aged and older populations: temporal trends and projected trajectories based on the Global Burden of Disease study. Hong Kong Med J 2026 Apr;32(2):135-43 | Epub 16 Apr 2026.  
<https://doi.org/10.12809/hkmj2513477>.

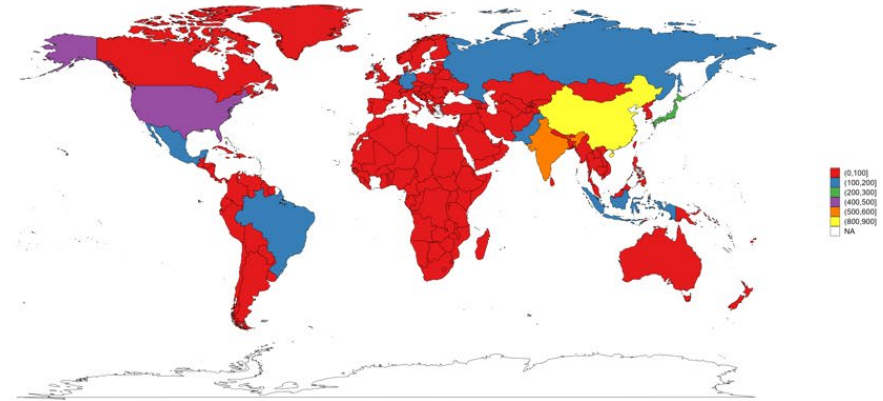
**SUPPLEMENTARY FIG 1.** Global burden of thyroid cancer associated with elevated body mass index (BMI) in middle-aged and older populations in 2021, showing age-standardised mortality, disability-adjusted life years (DALYs), years lived with disability (YLDs), and years of life lost (YLLs) across 195 countries and territories: (a) all-age case distribution; and (b) geographical variation in standardised rates

(a)

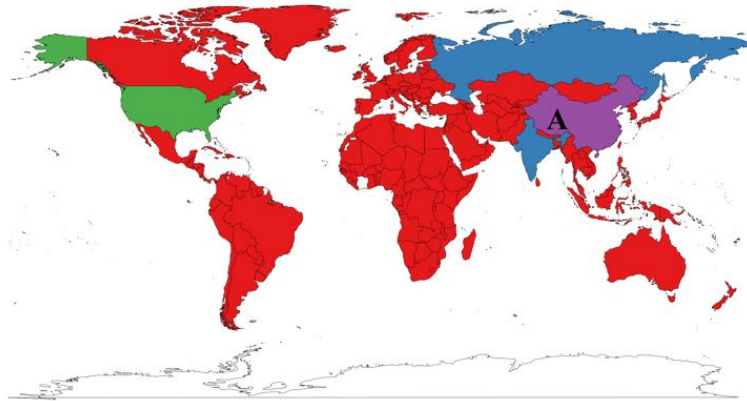
Number of DALYs (Disability-Adjusted Life Years) cases



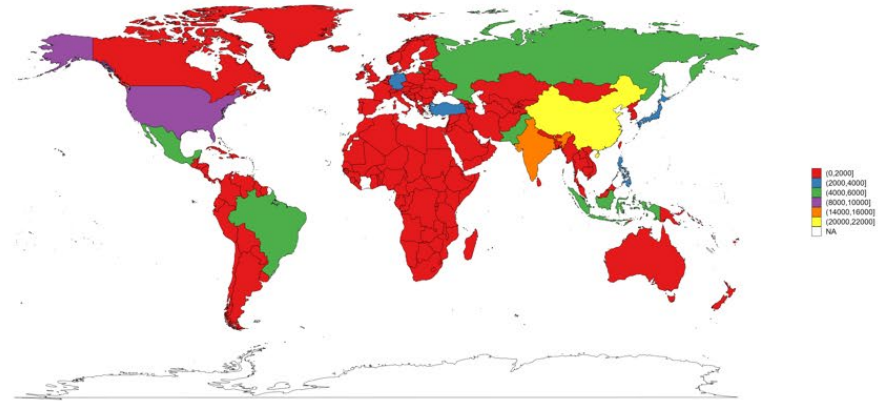
Number of Deaths cases



Number of YLDs (Years Lived with Disability) cases

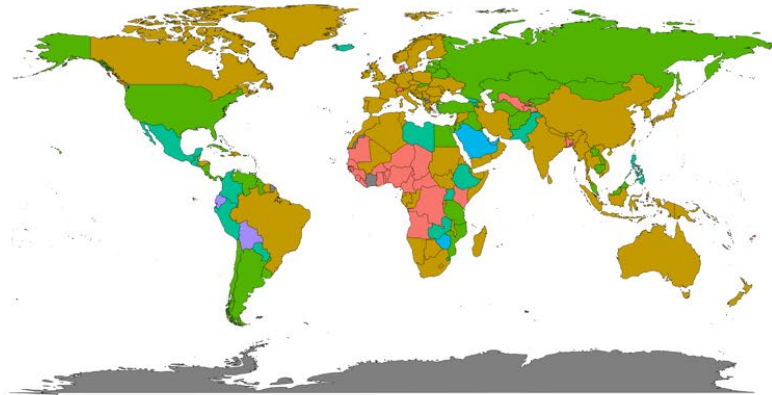


Number of YLLs (Years of Life Lost) cases

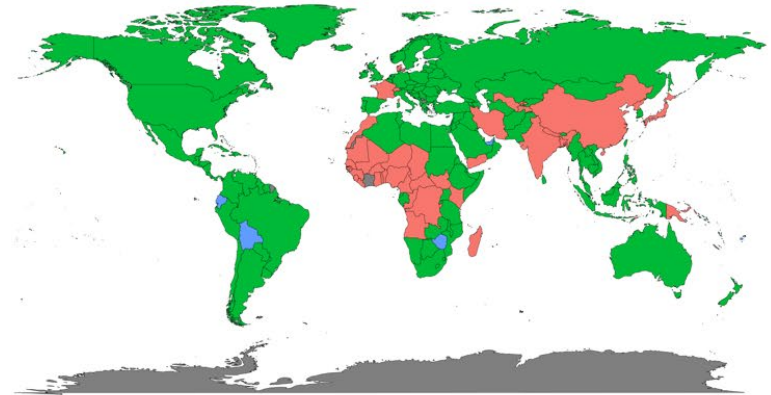


(b)

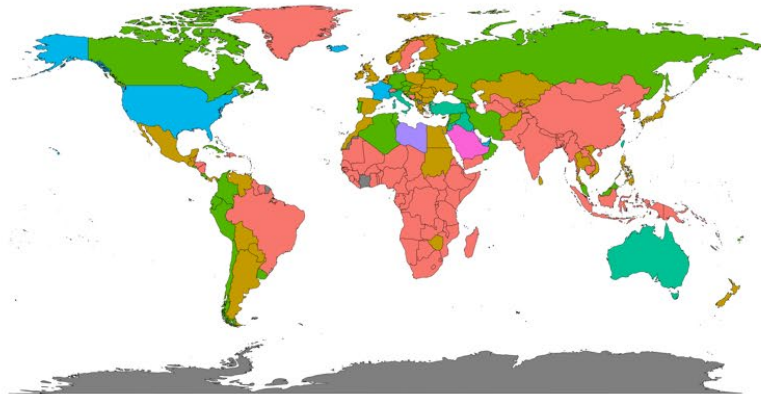
Age-standardized DALYs (Disability-Adjusted Life Years) rate



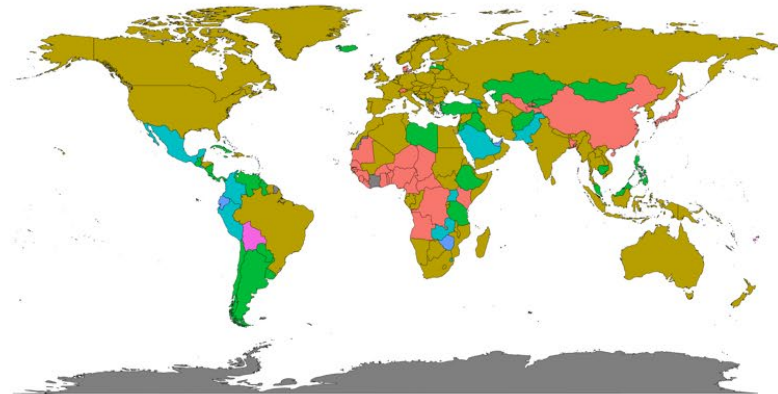
Age-standardized Deaths rate



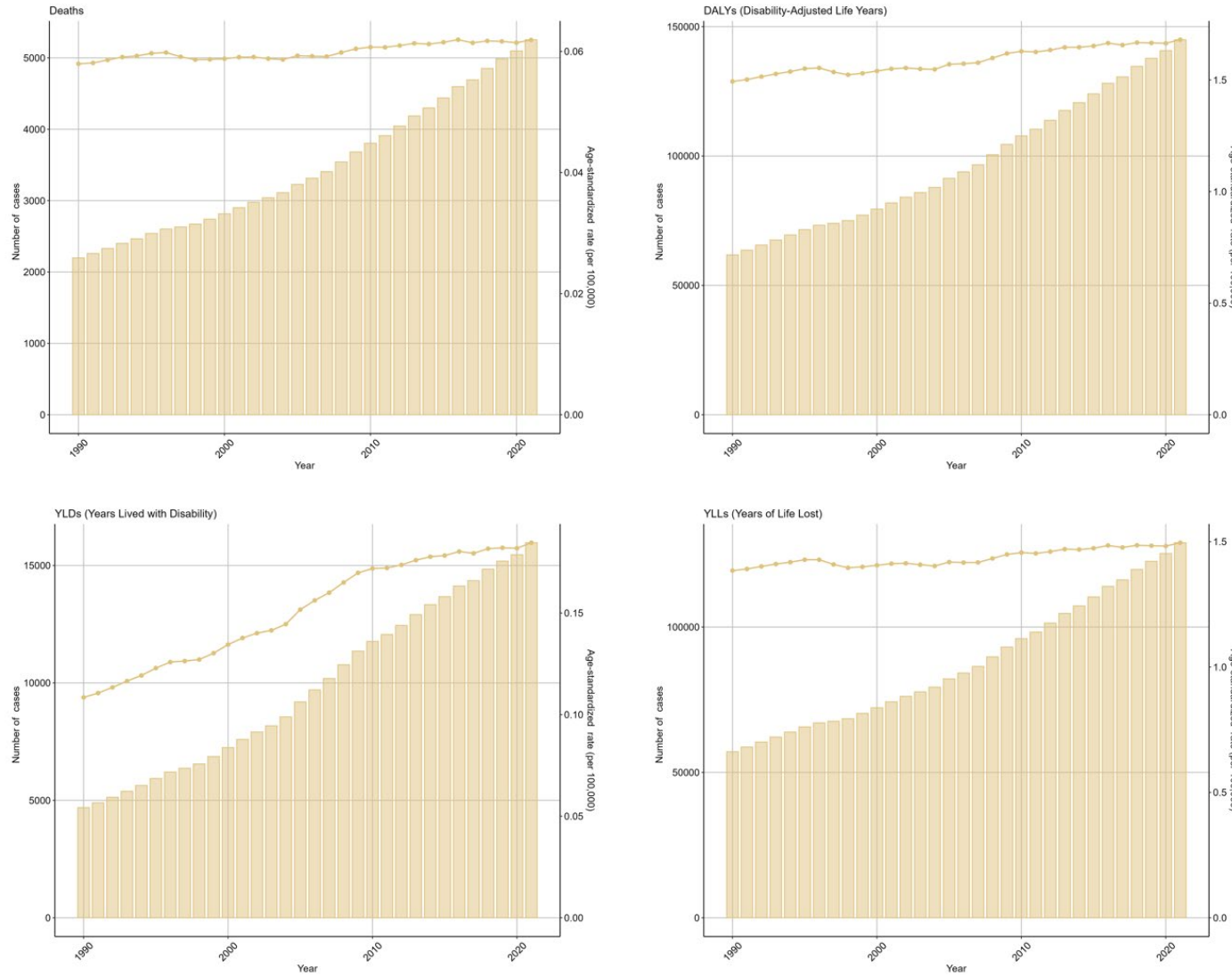
Age-standardized YLDs (Years Lived with Disability) rate



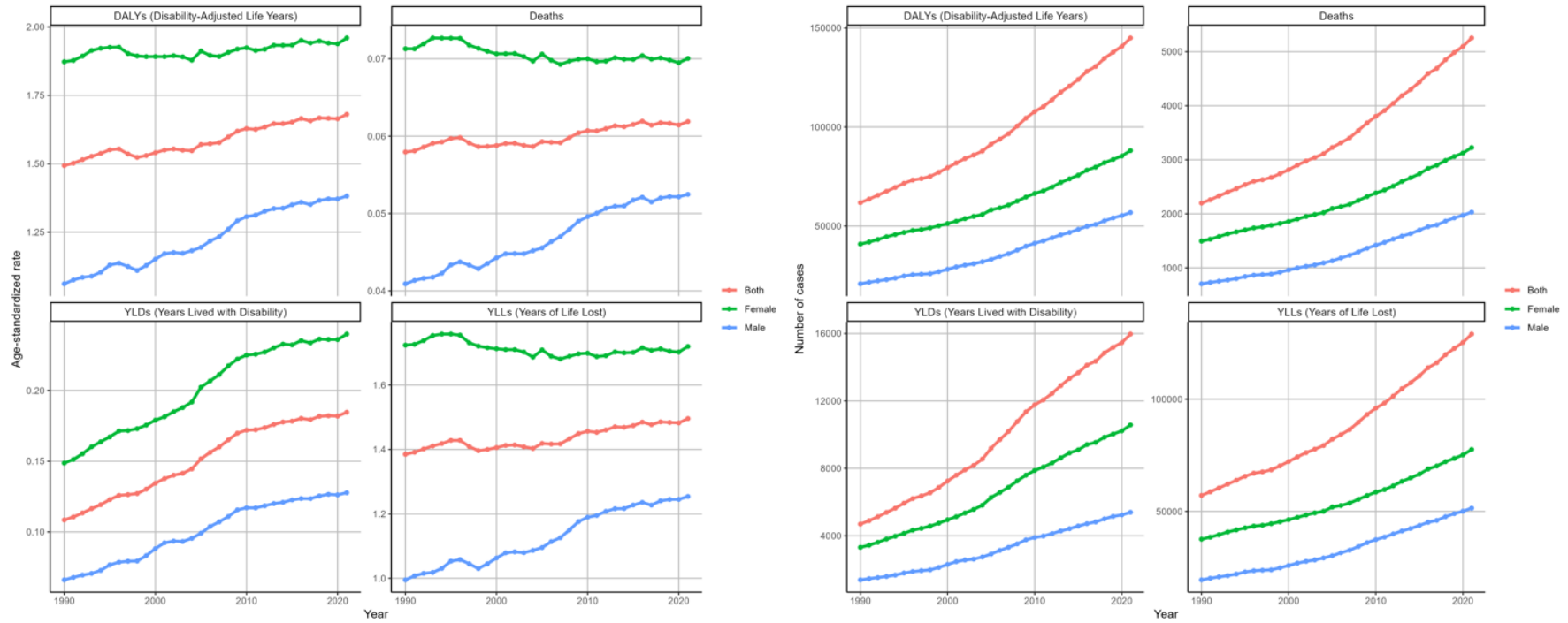
Age-standardized YLLs (Years of Life Lost) rate



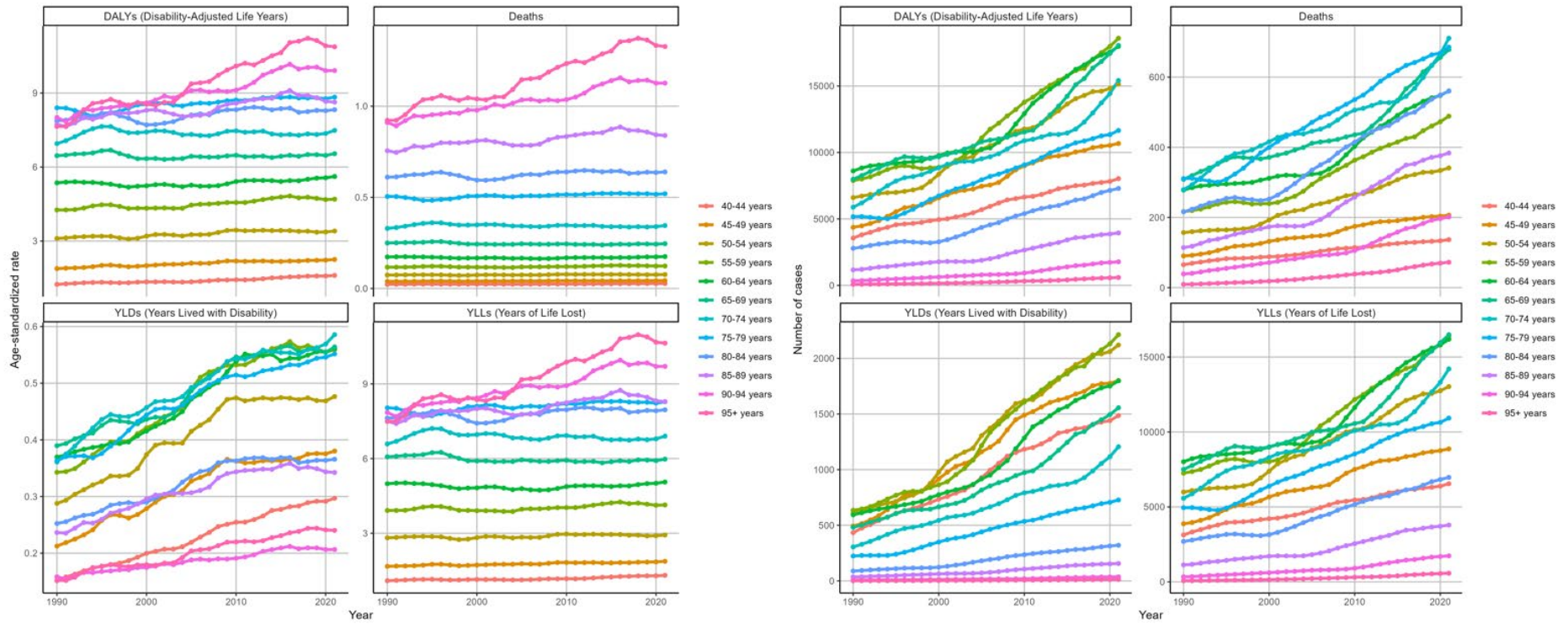
**SUPPLEMENTARY FIG 2.** Temporal trends (1990-2021) in disease burden attributable to high body mass index (BMI)-related thyroid cancer among middle-aged and older populations: global mortality and disability-adjusted life year trends



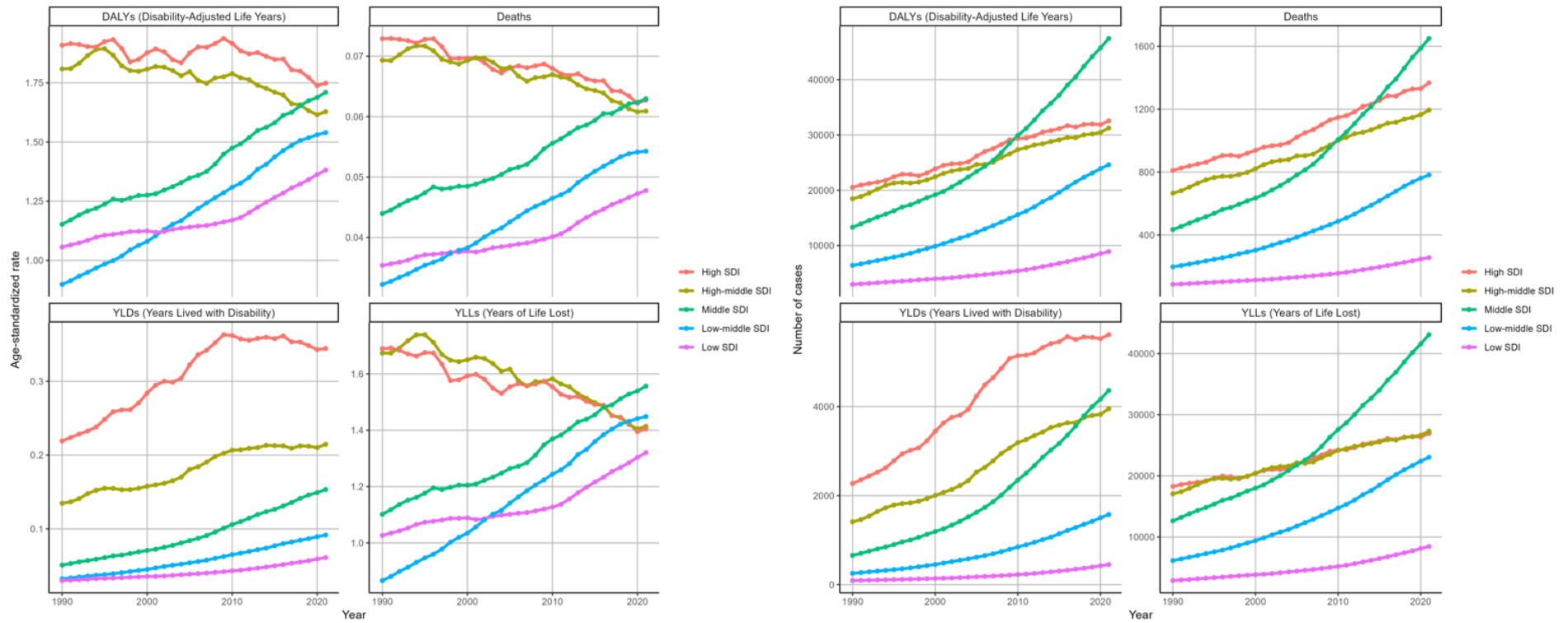
**SUPPLEMENTARY FIG 3.** Temporal trends (1990-2021) in disease burden attributable to high body mass index (BMI)-related thyroid cancer among middle-aged and older populations: sex-specific trends



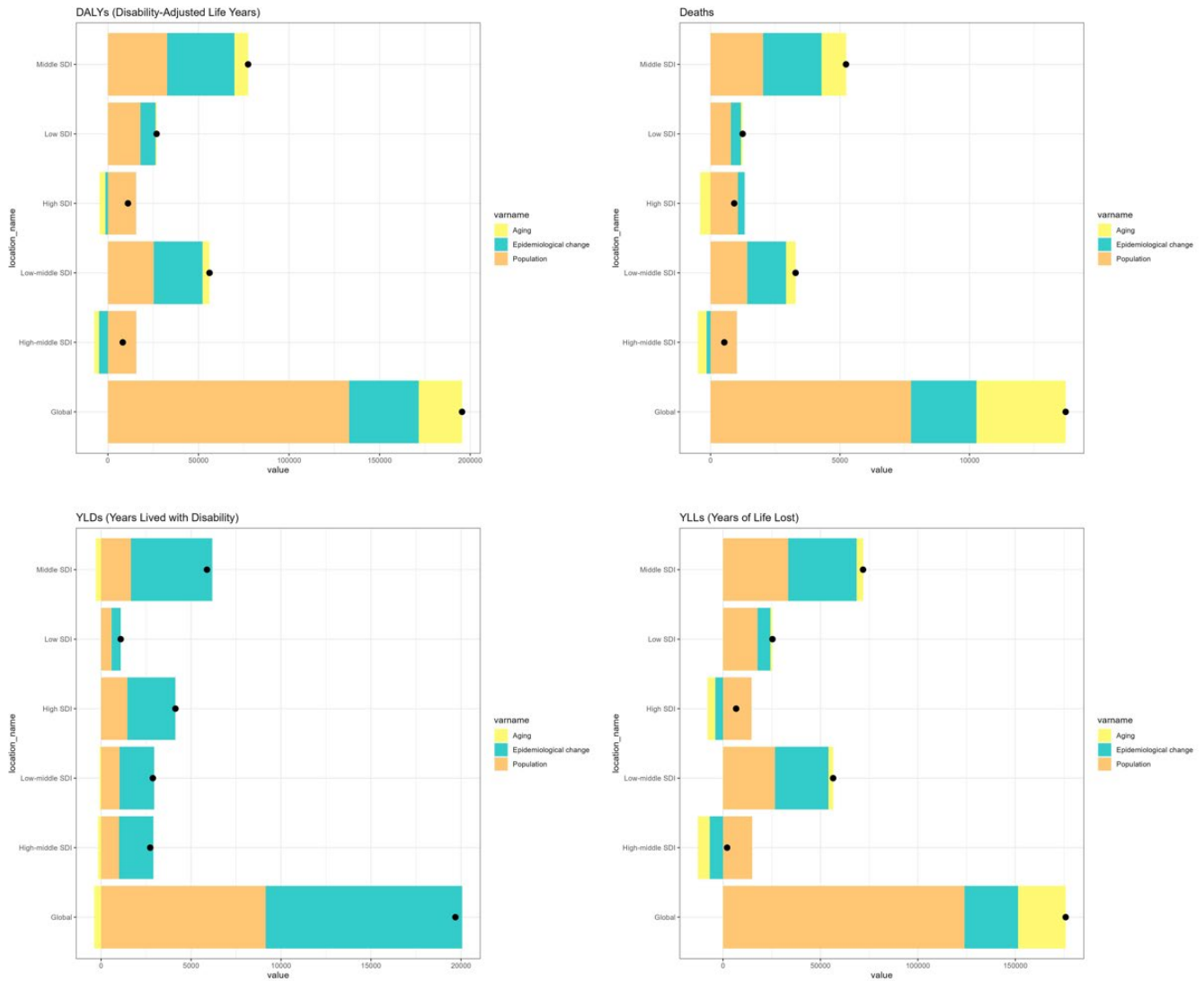
**SUPPLEMENTARY FIG 4.** Temporal trends (1990–2021) in disease burden attributable to high body mass index (BMI)–related thyroid cancer among middle-aged and older populations: age-specific trends



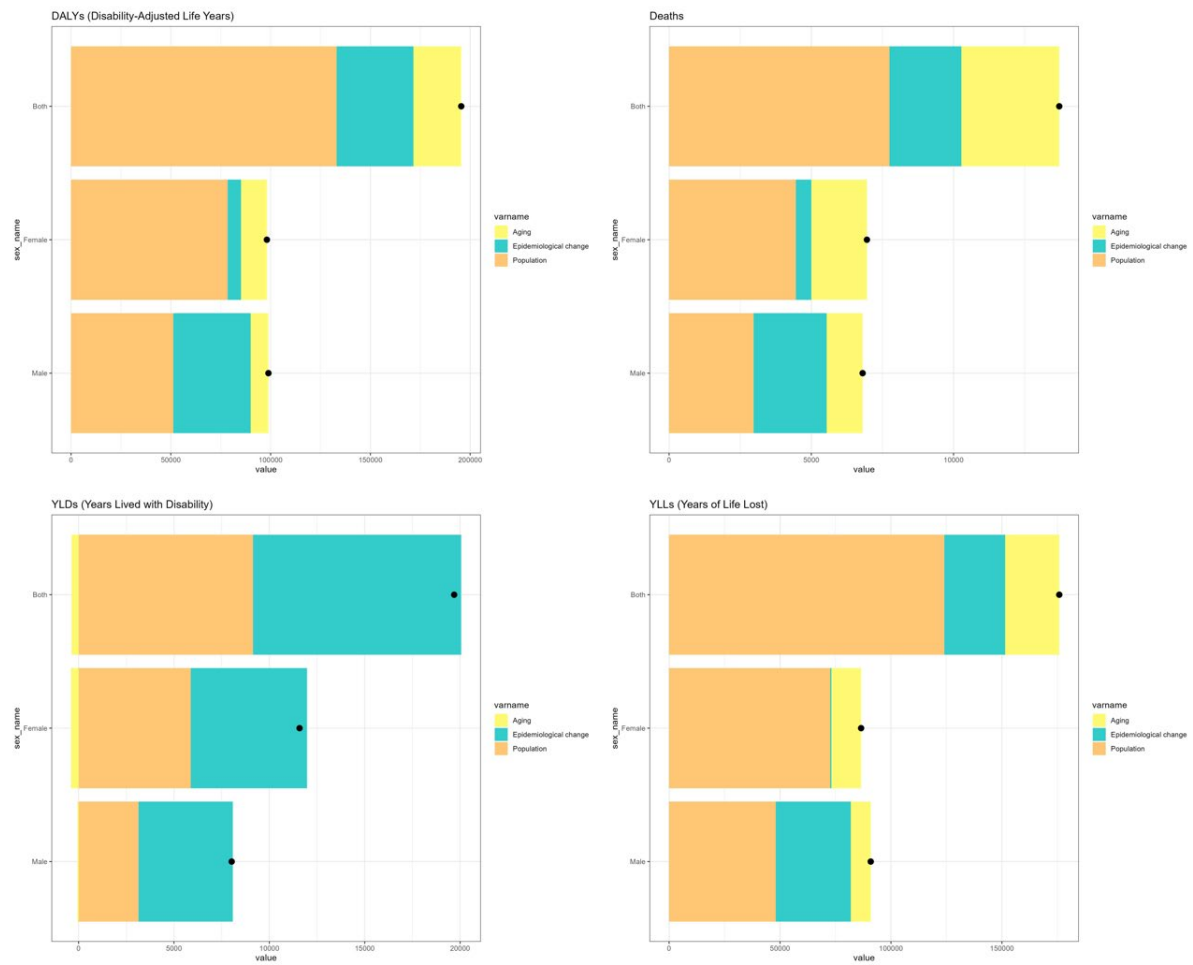
**SUPPLEMENTARY FIG 5.** Temporal trends (1990–2021) in disease burden attributable to high body mass index (BMI)–related thyroid cancer among middle-aged and older populations: SDI-based trends



**SUPPLEMENTARY FIG 6.** Decomposition analysis of the contributions of ageing, epidemiological changes, and population factors to thyroid cancer burden among middle-aged and older populations with elevated body mass index, stratified by socio-demographic index and sex: socio-demographic Index–stratified analysis illustrating age-structural shifts, epidemiological variation, and demographic drivers of thyroid cancer burden

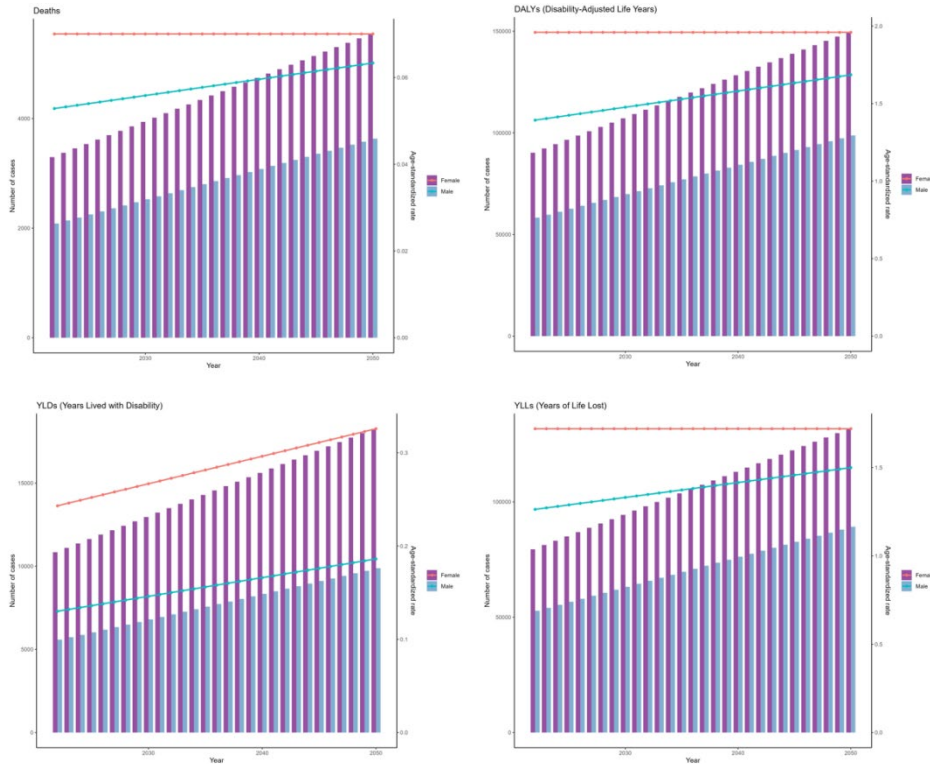


**SUPPLEMENTARY FIG 7.** Decomposition analysis of the contributions of ageing, epidemiological changes, and population factors to thyroid cancer burden among middle-aged and older populations with elevated body mass index, stratified by socio-demographic index and sex: sex-stratified analysis highlighting differences in risk exposure and disease progression between men and women



**SUPPLEMENTARY FIG 8.** Predicted trends in high body mass index–associated thyroid cancer in middle-aged and older populations, showing global sex-stratified age-standardised mortality rates, disability-adjusted life years, years of life lost, and years lived with disability from 2022 to 2050. (a) Autoregressive integrated moving average model. (b) Exponential smoothing model

(a)



(b)

