Methods Data on age-standardized incidence and mortality rate up to 2012 and 2015 were retrieved from the Cancer Incidence in Five Continents Volume XI and the WHO mortality database, respectively. The temporal patterns on the incidence of pancreatic cancer in 2003–2012 were assessed for 27 countries. Its mortality changes in 2006–2015 were evaluated for 23 countries. The Average Annual Percent Change (AAPC) of the incidence/mortality trends with a 95% confidence interval (CI) was estimated using joinpoint regression analysis.

Results The age-standardised incidence ranged between 0.7–14.2/100,000, with Thailand (AAPC=4.48, 95% CI=2.10–6.91), the Netherlands (AAPC=2.14, 95% CI=0.80–3.50) and Australia (AAPC=1.36, 95% CI=0.21–2.52) having the highest incidence rise in men. The greatest increase in incidence among women was observed in Malta (AAPC=6.04, 95% CI=0.28–12.14), the Netherlands (AAPC=3.13, 95% CI=2.00–4.28) and New Zealand (AAPC=2.32, 95% CI=0.61–4.06). (figure 1) In terms of mortality among men, the age-standardised mortality ranged between 2.2–15.7/100,000 with Brazil (AAPC=0.75, 95% CI=0.35–1.14), Russia (AAPC=0.73, 95% CI=0.41–1.05) and Spain (AAPC=0.56, 95% CI=0.03–1.10) reporting the biggest increase. Spain (AAPC=1.53, 95% CI=0.96–2.10), Japan (AAPC=1.41, 95% CI=0.85–1.98) and Belgium (AAPC=1.80, 95% CI=0.02–1.99) demonstrated the most prominent rise among women.

Conclusions Overall, the incidence and mortality rates of pancreatic cancer were still rising in many countries, especially among the female population. In addition to the implementation of regular surveillance and advanced technological management, future research should explore the underlying reasons for these epidemiological trends.

Abstract IDDF2019-ABS-0250 Figure 1

Conclusions This meta-analysis shows that probiotics may be used to improve MHE and prevent overt HE.