

Parallel Session 1 – Population Health & Policy

S3 - Breast Cancer Incidence and Mortality in a Transitioning Chinese Population: Current and Future Trends

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Background: Projections of future trends in cancer incidence and mortality are important for public health planning. Moreover, as the most economically developed city in China, Hong Kong may provide a sentinel for a substantial proportion of the global population.

Objectives: To model and evaluate recent trends in breast cancer incidence and mortality in Hong Kong, and to project the trends on short to medium terms, which have significant implications on future burdens on our health care system.

Methods: Based on recent breast cancer incidence and mortality trends, we projected disease burden in the rapidly transitioning Chinese population of Hong Kong. We used local data on breast cancer incidence and mortality and mid-year population figures in 1976-2010. We fitted Poisson age-period-cohort models with autoregressive priors on the chronological age, calendar period and birth cohort effects, and used projections of these effects to forecast future incidence and mortality to 2025.

Results: Age-standardised breast cancer incidence is projected to increase from 56.7 in 2011-2015 to 62.5 per 100,000 women in 2021-2025. Age-standardised mortality is projected to decline from 9.3 in 2011-2015 to 8.6 per 100,000 women in 2021-2025. Strong cohort effects were evident, with higher disease risk for the first generation of women (~1930s birth cohorts) who reached maturity in a more economically developed environment and downward changes in mortality risk for women born around the ~1950s. Disparities in the disease rates by age group were observed.

Conclusions: In the developed Chinese population, breast cancer mortality has remained relatively stable during the past decades despite certain degree of increased projections in older women, while incidence has slowly risen. These patterns are likely to continue in short to medium term. Increased disease risk may call for more resources for better cancer care and service delivery.