Comparison of Time Trends in Female Breast Cancer Incidence (1973–1997) in East Asia, Europe and USA, from Cancer Incidence in Five Continents, Vols IV–VIII


Figure 1 shows the time trends of ASR of female breast cancer incidence. East Asian people in their homeland showed consistently lower ASR as compared with European people and white and black people in the United States. In East Asia, a clear

![Graph showing time trends in age-standardized breast cancer incidence rate (ICD-10: C50) in 18 cancer registries in East Asia, Europe, and the United States, for females.](image-url)

Figure 1. Time trends in age-standardized breast cancer incidence rate (ICD-10: C50) in 18 cancer registries in East Asia, Europe, and the United States, females. Note: data were downloaded from the IARC CANCER Mondial Statistical Information System (http://www-dep.iarc.fr/). Data for number of incidences and population for Vols IV–VIII were extracted from the file named CI5I-VIII_September_2005.ZIP and tabulated by the authors of this article. Periods of years at diagnosis were representative, and they included the following exceptions: the first period was 1975 for Shanghai (China), 1974–1977 for Hong Kong (China), 1973–1977 for Bas-Rhin (France) and 1973–1976 for West Midlands (UK); the second period was 1979–1982 for West Midlands (UK); the first period (1976–1977) for Varese (Italy) was excluded because there were no data for several age groups. Note that calculated incidence rates were value-averaged across five years, which could have rounded rapid annual changes (a spike or drop). Responsibility for this presentation and interpretation lies with the authors of this article. LA, Los Angeles; SEER, Surveillance Epidemiology and End Results.
increasing trend was observed from the period 1978–1982 to 1993–1997 in the three registries in Japan (Miyagi, Nagasaki and Osaka) and in the two registries in China (Shanghai and Hong Kong). Hong Kong and Shanghai showed a nearly parallel trend with higher ASR in Hong Kong. Although the ASRs in Miyagi and Nagasaki were on the same level as Shanghai in the first period (1973–1977), they reached the level of Hong Kong in the last period (1993–1997).

European registries showed a similar level of ASRs and a similar increasing trend, except for the West Midlands (UK), where the ASR decreased in the last period (1993–1997).

All the ethnic groups in the US registries showed an increasing trend during recent several periods, except for Chinese people in Los Angeles (LA), for whom there was no clear change. The differences in ASRs among registries and ethnic groups in the United States are large as compared with East Asia and Europe. White people (SEER) showed the highest ASR followed by black people (SEER), and the two exhibited parallel trends. Japanese immigrants in LA and Hawaii showed a sharp increase after the period 1978–1982, and they remained at a higher level than Japanese people in the homeland. Chinese and Korean immigrants in LA showed lower ASRs as compared with white and black people and other East Asian immigrants in the United States.

Kota Katanoda and Dongmei Qiu
Cancer Information Services and Surveillance Division
Center for Cancer Control and Information Services
National Cancer Center
doi:10.1093/jjco/hym122