Jpn J Clin Oncol 2007;37(4)325–327

Cancer Statistics Digest

Comparison of time trends in colorectal cancer incidence (1973–97) in East Asia, Europe and USA, from Cancer Incidence in Five Continents Vol. IV–VIII

Time trends of age-standardized rate (ASR) of colorectal cancer incidence (ICD-10: colon (C18), rectal and anal canal (C19–C21)) were compared among 18 selected cancer registries and ethnic/racial groups in Asia, Europe and USA. Data source was the Cancer Incidence in Five Continents Vol. IV–VIII (years at diagnosis: 1973–77, 1978–82, 1983–87, 1988–92 and 1993–97, respectively). World population was used for age-standardization.

Figures 1 and 2 show time trends of ASR of colon cancer incidence for males and females. In all registries, ASRs in males shows higher than ASRs in females except black (SEER) in USA. Three registries in Japan show higher ASRs compared with other East Asian registries. As for the time trend of colon cancer incidence, the same increasing tendency is observed for males and females among the three registries (Miyagi, Nagasaki and Osaka) in Japan, Bas-Rhin males (France) and Korean immigrants in LA from the 1970s to the 1990s. While ASRs of these three registries in Japan have been increasing dramatically, the trend of those among Japanese immigrants in Hawaii and LA leveled off in 1993–97.

Figures 3 and 4 show time trends of ASR of rectal and anal canal cancer incidence for males and females. In all registries, ASRs in males show higher than ASRs in females. As for the time trend of rectal and anal canal cancer incidence, the plateau is observed for males and females excluding the three registries (Miyagi, Nagasaki and Osaka) in Japan and Korean immigrants in LA. ASRs of three registries for males in Japan have been increasing dramatically compared with other registries

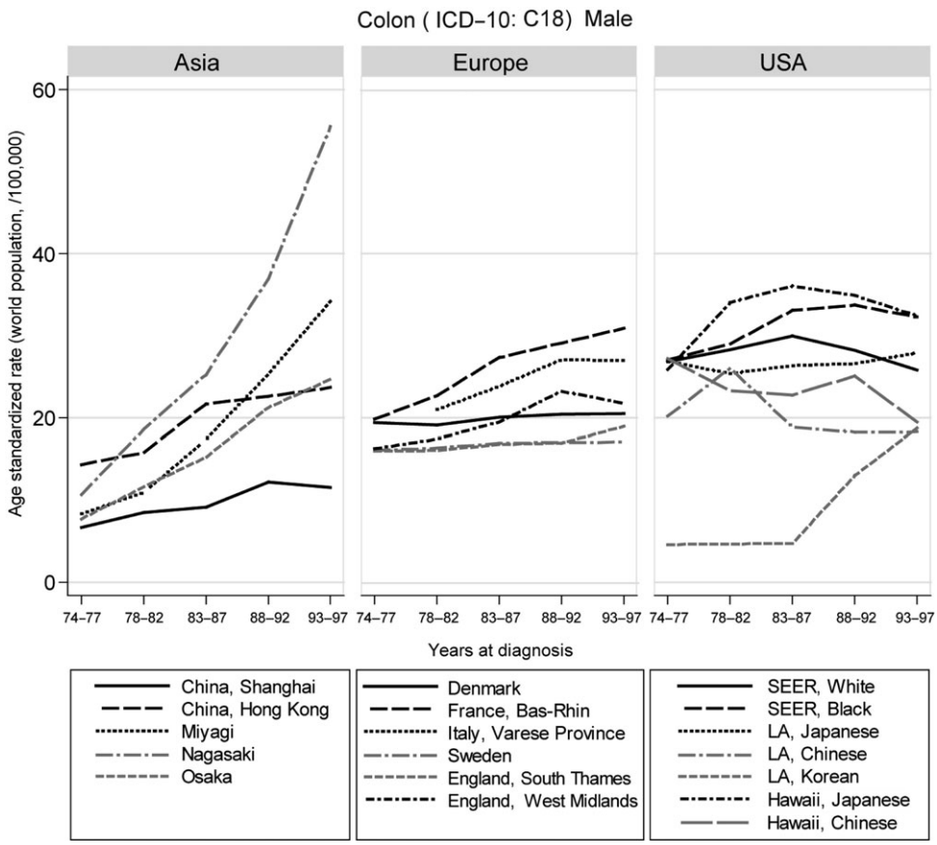

Figure 1. Time trends in age-standardized colon cancer incidence rate (ICD-10: C18) in 18 cancer registries in East Asia, Europe and USA, males.

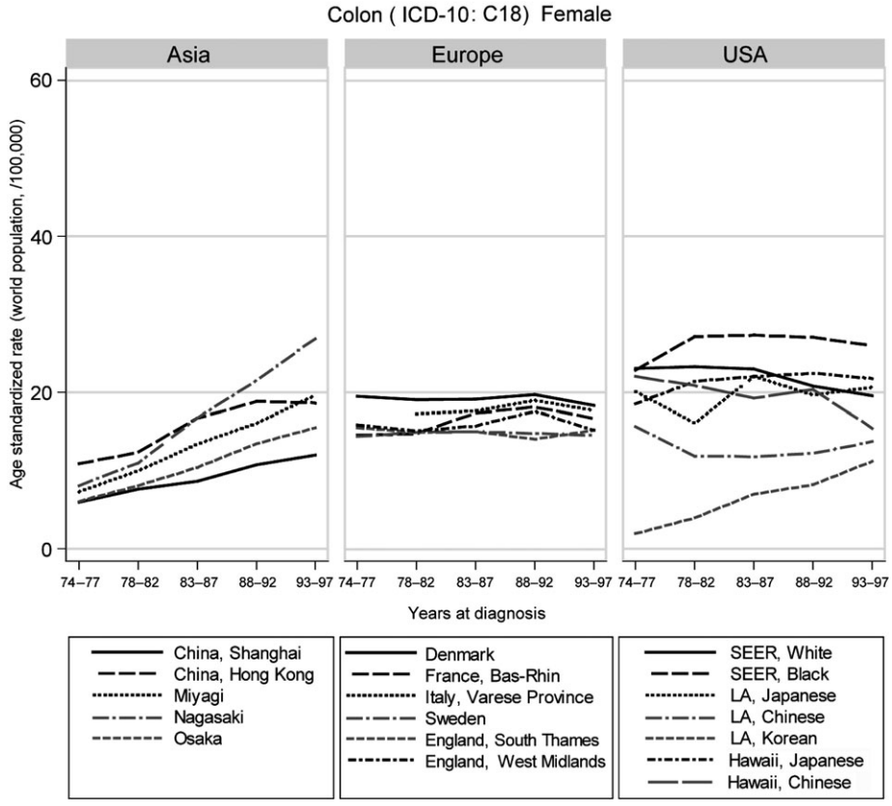

Figure 2. Time trends in age-standardized colon cancer incidence rate (ICD-10: C18) in 18 cancer registries in East Asia, Europe and USA, females.

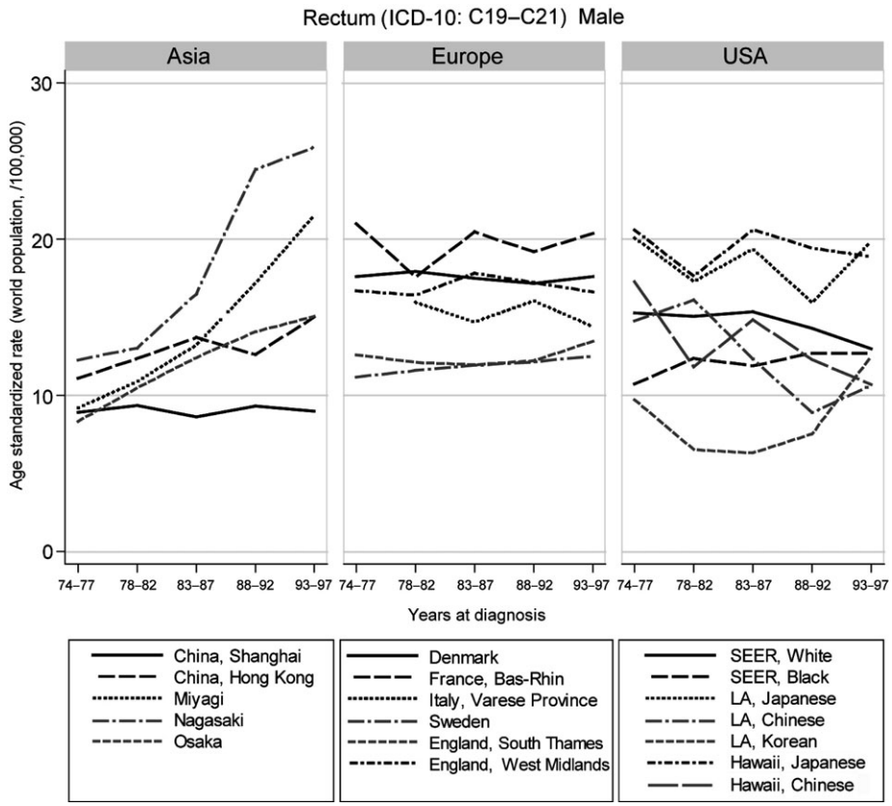

Figure 3. Time trends in age-standardized rectal and anal canal cancer incidence rate (ICD-10: C19–C21) in 18 cancer registries in East Asia, Europe and USA, males.

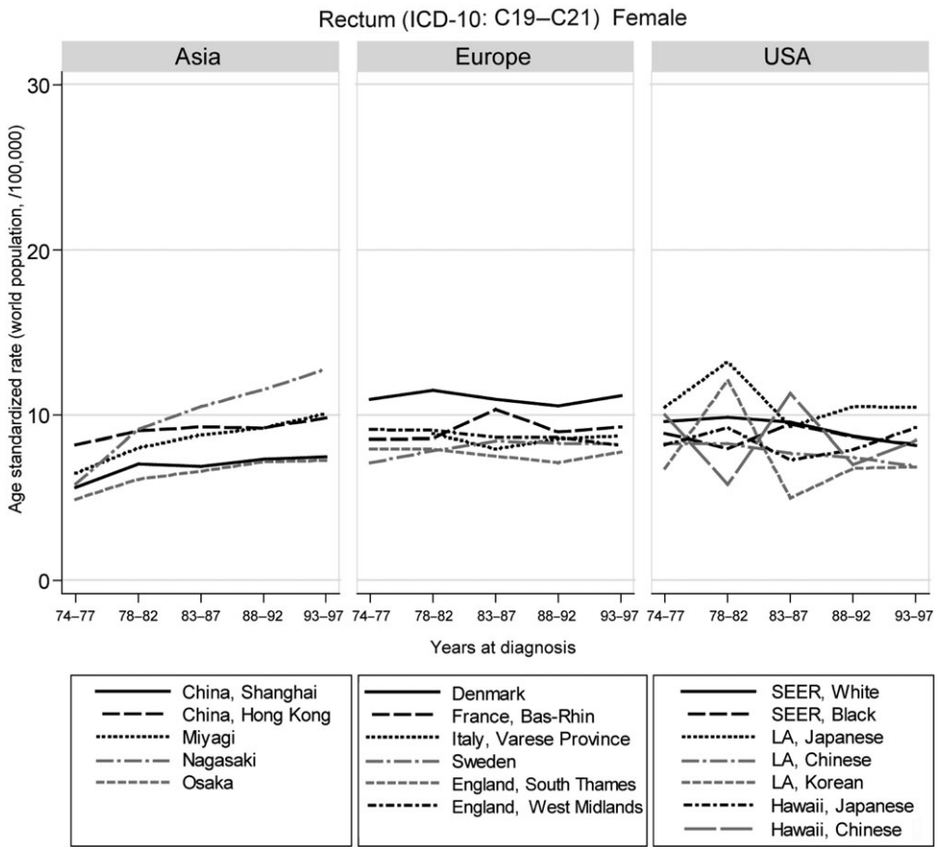

Figure 4. Time trends in age-standardized rectal and anal canal cancer incidence rate (ICD-10: C19–C21) in 18 cancer registries in East Asia, Europe and USA, females. *Note*: Data were downloaded from IARC CANCER Mondial Statistical Information System (http://www-dep.iarc.fr/). Data of number of incidence 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 year at diagnosis were representative, and they included the following exceptions: the first period was 1975 for Shanghai (China), 1974–77 for Hong Kong (China), 1975–77 for Bas-Rhin (France), 1973–76 for West Midlands (England); the second period was 1979–82 for West Midlands (England); the first period (1976–77) of Varese (Italy) was excluded because there were no data for several age groups. Note that calculated incidence rates were values 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.

from the 1970s to the 1990s. Japanese immigrants in Hawaii and LA in males show higher ASRs compared to other registries in the USA. No remarkable difference was observed among those in females' immigrants in the USA.

Yuka Hirabayashi and Sachiko Tanaka
Cancer Information Services and Surveillance Division
Center for Cancer Control and Information Services
National Cancer Center
doi:10.1093/jjco/hym028