



# Cancer Survivors: What we Know, What we Need to Know - Asian Perspective

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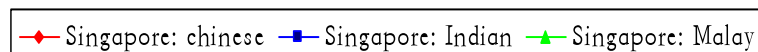
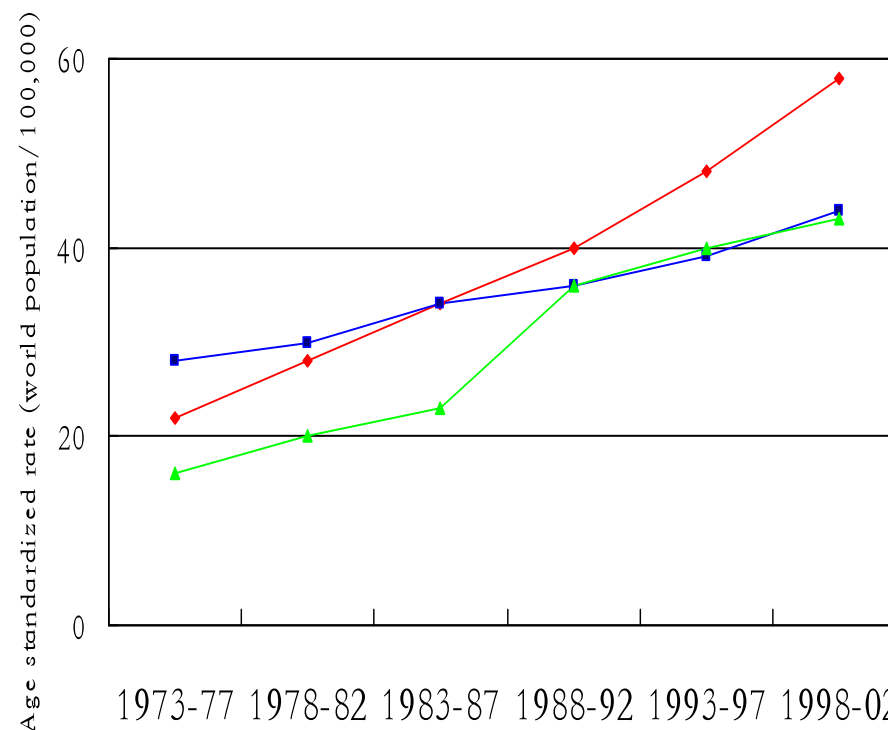
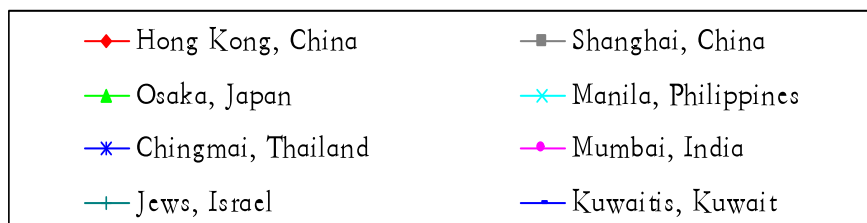
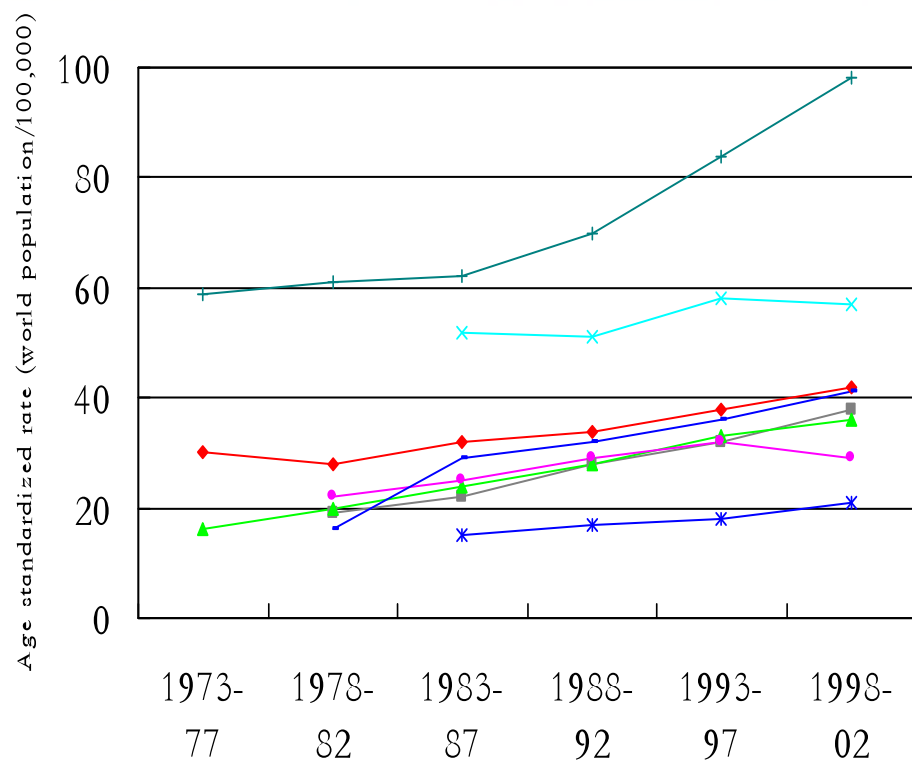
# Asia



- Varying incidence of cancer
- A region with a rich diversity of culture
- High, middle and low income countries and different economic and health systems
- Asian immigrant vs Asian locals



# Incidence of breast cancer in Asia



Time trends in age-standardized incidence rate of breast cancer in 11 cancer registries in Asian females . Hirabayashi Y. et al. *Jpn J clin Oncol* 2009; 39(6)411-412



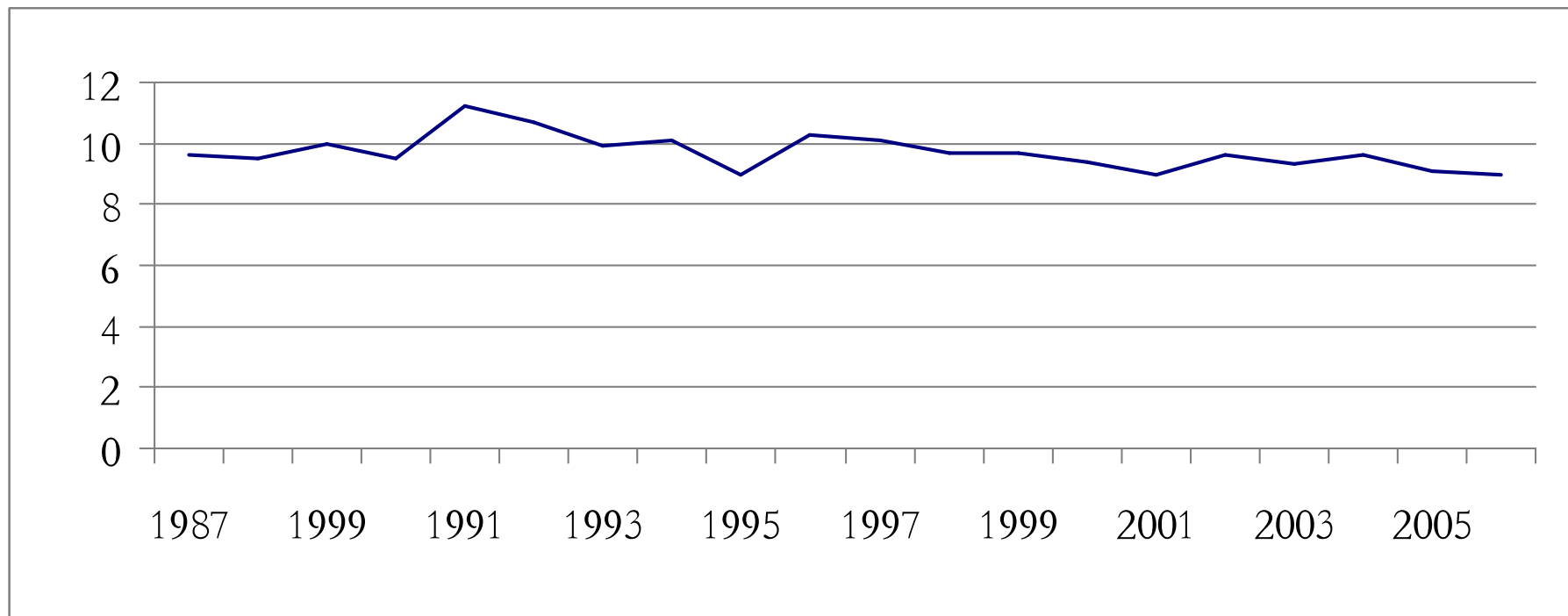
# Median relative survival rates

- In China, Singapore, South Korea:
  - 5 year Age standardized relative survival
    - Breast cancer: 76-82%
    - Cervical cancer: 63-79%
    - Bladder cancer: 71-78%
    - Large bowel cancer: 44-60%



# Mortality of breast cancer in Asia

- Trend in Mortality in HK
  - No significant change in mortality



**Age-standardized mortality rate of malignant neoplasm of breast in female, 1987-2006. Data from HK Cancer registry**



# What we know ?



Not much !



# Nutrition vs cancer risk –general categories



- Westernization:
  - Obesity, high energy intake, increased fat and meat consumption, sedentary lifestyle
- Taller height experienced increased risk of all cancers including carcinoma of intestine, liver, lung, breast, prostate and bladder.
- Increased in body weight and BMI is associated with breast cancer risk in post menopausal women but not in premenopausal women in East Asia women
- Exercise and physical activity are protective
- Animal fat is associated with increased risk for breast cancer in Chinese





# Nutrition vs cancer risk –specific food item/ dietary pattern



- Green tea
  - chemoprotective effect on prostate, ovarian and breast cancer
- Betel quid chewing
  - High incidence of oral cancer in South Asia
- Adult and adolescent soy intake
  - Protective against premenopausal breast cancer
  - Hazard ratio: 0.41 (0.25-0.7) and 0.47 (0.34-0.97) for adult and adolescent soy protein intake
- Vegetable-fruit-soy dietary pattern
  - Hazard ratio of the highest quartile compared to the lowest is 0.70 (0.51-0.95) in breast cancer risk (Singapore Chinese women)



# Cancer survivor ?



Even less



# Health belief of nutrition in cancer survivors



- Qualitative study done in our school
  - Sponsored by WCRF (2009)
  - Focus group discussion
- Subjects:
  - Professionals including breast surgeons, dietitians, and Traditional Chinese Medicine practitioner
  - Breast cancer survivors
- Aim:
  - Study the health behavioural change in diet after the diagnosis of disease
  - Perceived benefits of these changes



# Results



- **Attitudes towards dietary change**

- Health professionals: Only alcohol and caffeine were suggested to be avoided. They all stressed the importance of balanced diet. No single food item was suggested to be avoided. TCM practitioner suggested that emphases should be put on cooking method. They all agreed that dietary change and use of supplements and herbs are common phenomenon in breast cancer patients
- Breast cancer patients: Nearly all patients thought that some degree of food avoidance and increase consumption of herbs can help improving outcome. Food items avoided were mainly on non-vegetable food items and dairy products. “an imbalance of food intake cause my cancer. So I need to resume this imbalance”; “Life depends on food, so we must have changes on food if there is a disease inside the body”

- **Source of information**

- Breast cancer patients: Mass media, family, friends or other breast cancer patients are the main information source



# Results

- **Perceived effect of dietary change in the disease outcome**
  - Health professionals: Balanced diet can make the body strong enough to fight the disease. No particular food item will have a significant effect.
  - Breast cancer patients: “Food is a cause to the imbalance within our body. So we need a change to keep it back to balance “ “It’s a psychological relieve if I know which food should be avoided” “ I felt depressed when I had to avoid my favorite food”



# Are there any evidence?



# Overweight with breast cancer survival



- Shanghai Breast cancer study
  - 1455 breast cancer survivors
  - Median follow-up time: 5.1 years
- BMI at cancer diagnosis: inverse relationship with survival
  - 5year survival rate is 86.5%, 83.8% and 80.1% for subjects whose BMI were <23, 23.0-24.9 and >25



# Soy intake and breast cancer survival



- Shanghai Breast Cancer Survival Study
  - Median follow-up time: 3.9 years
  - Subjects: 5042 Chinese women
  - Harzard ratio for total mortality: 0.71 (0.54-0.92)
  - Harzard ratio for recurrence: 0.68 (0.54-0.87)





# What we need to know?



# Life course approach

- Pre -/ Post-diagnosis diet
- Prenatal nutrition
- Adolescent
- Pre-menopausal/ post-menopausal



# Particular diet/ physical activity



- Dietary pattern intervention
  - High vegetable/ low meat/ high soy intake
- Physical activity
  - Yoga
  - Taichi
  - Qigong



# Westernization of diet



- How to define?
  - Food/ nutrient content?
  - Cooking method?
  - Eating style



# Use of traditional medicine

- Herbs are not always viewed as medicine in many Asian culture
- They are used in their daily cooking
- Study in Japan
  - prevalence of alternative medicine use was 44.6% (1,382 of 3,100) in cancer patients
- Survival/ quality of life/ treatment side effect



# Genetic difference?



- Breast cancer patients in Asia is usually much younger
  - Birth cohort effect?
  - Genetic effect?
    - BRCA gene was suggested in a higher proportion in Asian women than in European or American
    - Study in Taiwan: molecular subtypes of breast cancer of young patients are different from young breast cancer patients in western countries
    - Endogenous estrogen level in East Asian are lower than in age matched European women irrespective of the diet



# Interaction of nutrition and other risk factors

- Genetics
- Obstetric history
- Breast feeding
- Screening
- Environmental pollutant



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# Thank you



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