

## Breast cancer trend in Iran from 2000 to 2009 and prediction till 2020 using a trend analysis method

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**Background:** Breast cancer is the most common cancer in women worldwide with a rising incidence rate in most countries. Considering the increase in life expectancy and change in lifestyle of Iranian women, this study investigated the age-adjusted trend of breast cancer incidence during 2000-2009 and predicted its incidence to 2020.

**Materials & Methods:** The 1997 and 2006 census results were used for the projection of female population by age through the cohort-component method over the studied years. Data from the Iranian cancer registration system were used to calculate the annual incidence rate of breast cancer. The age-adjusted incidence rate was then calculated using the WHO standard population distribution. The five-year-age-specific incidence rates were also obtained for each year and future incidence was determined using the trend analysis method. Annual percentage change (APC) was calculated through the joinpoint regression method.

**Results:** The bias adjusted incidence rate of breast cancer increased from 16.7 per 100,000 women in 2000 to 33.6 per 100,000 women in 2009. The incidence of breast cancer had a growing trend in almost all age groups above 30 years over the studied years. In this period, the age groups of 45-65 years had the highest incidence. Investigation into the joinpoint curve showed that the curve had a steep slope with an APC of 23.4% before the first joinpoint, but became milder after this. From 2005 to 2009, the APC was calculated as 2.7%, through which the incidence of breast cancer in 2020 was predicted as 63.0 per 100,000 women.

**Conclusions:** The age-adjusted incidence rate of breast cancer continues to increase in Iranian women. It is predicted that this trend will continue until 2020. Therefore, it seems necessary to prioritize the prevention, control and care for breast cancer in Iran.

### Biography

Reza Chaman is the Head of Community Medicine Department at Yasuj University of Medical Sciences. He has 12 years of Teaching Experiences in Universities. He has published/Translated more than 10 books. He has published more than 70 research papers and presented his research in 36 national and international conferences. He is a part of 57 investigations and Research Projects as Investigator or Cooperator.

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