

Lower risk of breast cancer occurrence but higher mortality amongst low-educated and immigrant women

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(Medical Xpress) -- Low-educated and immigrant women run a lower risk of breast cancer occurrence than highly educated women and women born in Sweden. However, the risk of dying from breast cancer is higher for those low-educated and immigrant women that do get the diagnose - a development that has occurred in Sweden during the last ten years. This according to a new study from the Karolinska Institutet based on the records of some 5 million women between 1961 and 2007.

"Before the year 2000 all women in Sweden were running the same risk of dying from breast cancer", says study leader Associate Professor Tahereh Moradi at the Institute of [Environmental Medicine](#), Karolinska Institutet. "But then something happened. Low-educated and immigrant women who got their diagnose between 2000 and 2007 have for some reason a higher mortality."

Breast cancer incidence continues to increase and [fatality](#) continues to fall in Sweden among native Swedes and immigrants. The researchers believe that the better survival rate is most likely attributable to improved therapies and earlier diagnosis via screening programmes. However, the risk of developing and dying of breast cancer varies with level of education, age, country of birth and, if an immigrant, age of arrival and length of residency.

The results, published in the scientific journal [Breast Cancer Research](#),

show that women with the longest education, as an indicator for higher socio-economic position, have 20 to 30 per cent higher incidence of breast cancer but better breast cancer survival compared with women with lowest [educational level](#) irrespective of country of birth. The results also show that immigrant women run a lower risk of developing breast cancer than women born in Sweden. The differences in risk between immigrants and Sweden-born women were greater at older age at diagnosis and in more recent years. Women born in China, [South Korea](#), Thailand, Vietnam, Turkey and Chile had the lowest risk, and almost half that of native Swedes.

The researchers say that this is most likely an outcome of differences in lifestyle factors. Moreover, the risk of developing breast cancer seems to decrease in inverse proportion to the age of arrival in Sweden, and the immigrant women who have lived in Sweden for less than 30 years run a 10 per cent lower risk than those who have lived in the country for longer than 30 years.

The notion that a change in lifestyle factors affects the risk of developing breast cancer is also corroborated by the finding that Swedish-born daughters of immigrant women run the same risk as native [Swedes](#). Such factors include number of pregnancies, age at first completed pregnancy, age at menopause, obesity, and the use of screening and the healthcare services.

The study also shows that immigrant women who are diagnosed after the age of 50 and immigrant women whose cancer was diagnosed in more recent years run a higher risk of dying from the disease than their native-born peers. This disparity might be due to lack of absorbance in screening program among older and recently arrived immigrants.

"Our results indicate the importance of designing and implementing active interventions in order to reduce incidence and particularly case

fatality in susceptible sub-groups of the female population", says Dr Moradi. "The lower risk of breast cancer amongst immigrant women also shows how important it is to find out more about how the lifestyle factors in [immigrant women](#) with a low [breast cancer risk](#) differ from those for Swedish-born women, so that preventative measures may be implemented."

The study was carried out using the Migration and Health database, which has been built through linkages between national registers and designed to enable the study of diseases amongst socially disadvantaged groups, immigrants and their offspring in Sweden.

More information: Breast Cancer Incidence and Case Fatality among 4.7 Million Women in Relation to Social and Ethnic Background: a Population-based Cohort Study

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