Conclusions Over the last decades, local breast cancer therapies became less rigorous, whereas systemic therapy use has increased. Simultaneously, the risk of breast cancer relapse has tremendously decreased, even after adjustment for tumour stage, histology and age.

Table Five-year risk of breast cancer relapse by site of recurrence and period of diagnosis

First relapse site	1972–1979 (n = 113)	1980–1986 (n = 166)	2003–2004 (n = 8417)
Relapse	0.38 (0.29–0.48)	0.35 (0.28–0.43)	0.16 (0.15–0.17)
Locoregional recurrence	0.24 (0.16–0.33)	0.14 (0.09–0.19)	0.04 (0.03–0.04)
Distant metastases	0.27 (0.18–0.35)	0.28 (0.21–0.35)	0.12 (0.11–0.13)
Second primary breast cancer	0.01 (0.00–0.03)	0.04 (0.01–0.07)	0.02 (0.02–0.03)

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The Effects of Alcohol Consumption On Breast Cancer Risk Among Women in Developing Countries

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Background: Several research of Breast Cancer has identified certain risk factors over the years, which influence a woman's chance of getting the disease. While factors such as personal history of breast abnormalities, age and the occurrence of breast cancer among first-degree relatives have been identified as estimation factors for breast cancer risk, other factors are less conclusive. Increasingly, obesity is being analyzed as a significant risk factor for many cancers and, after tobacco use, may be one of the most modifiable behavioral cancer risk factors. Interestingly when comparing the incidence rate of breast cancer to the obesity rate nationwide many states show a disparity in the two. It may be that other behavioral risk factors are of greater importance.

Methods: The Nigeria states of Lagos and Kano which are the two most populated states display the highest rates of obesity (over 29.4% of their population display a BMI over 30.0) and the lowest rates in breast cancer incidence nationwide (under 113.9 and 113.5 people per 100.00. residents are diagnosed with cancer each year respectively). We set out to look at various behavioral risk factors to possibly detect an underlying pattern for breast cancer. Using selected urban/semi-urban area risk trend data from the Behavioral Risk Factor Surveillance System from the WHO, we compared median percentages of the following risk factors: health status, exercise, diabetes, flu vaccination, current smoking, alcohol consumption and obesity.

Results: Both states displayed higher percentages in all risk factors compared to the national average except for one in which they were below the national average: Alcohol consumption. These states with the highest incidence rates in breast cancer displayed slightly higher rates of alcohol use compared to other states.

Conclusions: It appears that alcohol consumption might weigh more than other behavioral factors in terms of risk associated to breast cancer. Future research will need to analyze the interplay and patterns of the various risk factors as well as evaluate the association of mammographic density and alcohol consumption to further investigate the role of alcohol in the development of breast cancer.

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Epidemiology of Breast Cancer in Ulyanovsk Region, Russia

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Background: The purpose of the study was to describe epidemiologic characteristics of breast cancer patients in Ulyanovsk region. Ulyanovsk Region is a federal subject of Russia with Ulyanovsk being its administrative center. On the 1st of January 2010 population of Ulyanovsk Region consisted of 593 935 men and 704 644 women (totally 1 298 597). The urban population represented 72.9% of total population and rural − 27.1%.

Material and Methods: Population-based cancer registry of Ulyanovsk regional oncology center with the data on 8 142 breast cancer patients from 1986 to 01.12.2009.

Results: In 2008 there were 482 new cases of breast cancer diagnosed in Ulyanovsk region and breast cancer incidence increased by 50% since 1995 (324 new cases of breast cancer).

Approximately 11.6% of rural patients had Stage IV disease, whilst in the group of urban patients this rate was 9.2%, which could be explained by late referrals. In 2 areas of the region more than 15% of patients had distant metastases at the time of diagnosis. At the same time most of urban breast cancer patients had early stage breast cancer.

Analysis of breast cancer survival of urban patients revealed the following data: overall 3-year survival (OS) was 72.48±0.8%, 5-year OS − 61.79±0.9%, 10-year OS − 45.46±1.0% (p = 0.01). OS of rural patients was much lower than that of urban patients. So, among rural population 3-year OS was 64.8±0.9%, 5-year OS − 52.2±1.0%, 10-year OS − 35.7±1.1% (p = 0.01). Such a significant difference in the survival could be probably explained by a higher number of patients with advanced stages in the rural population group (38.6% in the rural vs. 32.7% in the urban population group). In 4 areas of the Ulyanovsk region 3-year OS was as low as 56%. In the other 4 areas this rate was much higher and figured more than 76%. The rest 14 areas had intermediate rates of survival. The analysis of 5- and 10-year OS showed a similar trend. In the areas where OS was the lowest 14.8% of breast cancer patients had Stage IV disease and 55.5% had Stages 0-II disease, vs. 8.4% and 66% in the areas where survival rates were the highest.

Conclusions:
1. Breast cancer is more often diagnosed among urban population of Ulyanovsk region.
2. Urban patients have higher survival rates, which are associated with earlier diagnosis.

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Insulin Resistance, Metabolic Syndrome and Breast Cancer Risk − National Cancer Institute of Naples Experience

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Background: Hormonal changes in menopause, weight gain and insulin resistance appear to influence breast carcinogenesis. Waist circumference $\geqslant$ 88 cm, that means android fat distribution, rules as a phenotypical expression of excess intra-abdominal fat. It determines high levels of aromatase production as well as chronic hyperinsulinemia that causes insulin resistance. High levels of insulin can cause its binding to receptors that continuously stimulate the cell to grow, to divide and tend to strengthen its mitogen, gonadotrophic and antiapoptotic secondary effects. Which is the true role of insulin in breast carcinogenesis?

Patients and Methods: Between 2008 and September 2011, 975 patients have been enrolled in our case-control study. We evaluated the association between metabolic syndrome and breast cancer, and focused on the most important feature characterizing metabolic syndrome relation to cancer: insulin resistance. HOMA *(Homeostasis Model Assessment)* was used to determine insulin resistance. The Homeostasis Model Assessment (HOMA) calculates steady state of beta cell function: HOMA IR (insulin resistance). The HOMA- IR was obtained as the product of the fasting plasma insulin level (microU/mL) and the fasting plasma glucose level (mg/dl) divided by 405.

Results: High levels of HOMA- IR were found in 49% of cases [C.I.95%=(0.42–0.51)] compared to 34% of controls [C.I.95%=(0.03–0.38)]. Our data confirm a strict correlation of insulin resistance and breast carcinogenesis, moreover HOMA-IR was very useful to evaluate patients affected by insulin resistance with fasting plasma glucose levels and fasting plasma insulin levels in the range of normal.

Conclusions: According to our experience, android fat distribution and insulin resistance are the most important criteria of MS to consider and on which primary prevention may work on.

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Optimal Age to Start Preventive Measures in Women with BRCA1/2 Mutations or High Familial Breast Cancer Risk

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Background: Women from high risk breast cancer families consider preventive measures like screening. Guidelines on screening differ