



Public Health
England

Protecting and improving the nation's health

National Cancer Registration and Analysis Service

Be Clear on Cancer: National breast cancer in women over 70 awareness campaigns 2014 and 2015

Final evaluation results – Executive
Headlines

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1. Foreword

I am very pleased to introduce this final evaluation report on the National Breast Cancer in Women over 70 Awareness Campaigns that ran in 2014 and 2015 as part of the Be Clear on Cancer programme. This report is based on evaluation metrics which are published on the National Cancer Registration and Analysis Service (NCRAS) website. I would like to thank staff in PHE, the Department of Health and Social Care (DHSC) and NHS England (NHSE) – together with significant contributions from partner organisations, particularly Cancer Research UK – for their hard work in acquiring, presenting, analysing and interpreting these metric data. The data is very wide ranging, from evaluation of changes in number of GP attendances to survival rates. This has facilitated the evaluation of the impact of the National Breast Cancer in Women over 70 Awareness Campaigns through the patient pathway.

This document examines the evaluation metrics published on the NCRAS website and takes a close look at the findings in the wider context of what we know about Breast cancer and early diagnosis. The results are of great interest, though not straightforward to interpret. On the one hand, the campaigns were successful in marketing terms as members of the public were aware of campaign materials and the main messages were clearly reaching the target audience. The campaigns also motivated older women to go to their GP which resulted in more GP referrals for suspected cancer and diagnoses of breast cancer. However, it has not been possible to demonstrate the impact of the campaigns on other outcomes, such as the number of breast cancers treated with surgery. In addition, there were mixed results across the 2 campaigns when looking at the number of cancers caught at an earlier stage. These outcomes are discussed at some length later in the last chapter of the report under final discussion, conclusions and recommendations.

Since its creation in 2010, Be Clear on Cancer has become a well-established, award-winning brand, working to improve cancer outcomes and reduce health inequalities. The Independent Cancer Taskforce supported our work in the [2015 Strategy for England](#), recognising how Be Clear on Cancer is making a real difference to people's lives by improving outcomes and increasing awareness of the fact that many cancers are treatable if caught early. Early diagnosis is crucial to improving outcomes from cancer and other serious diseases. Be Clear on Cancer is part of the national drive to tackle cancer, contributing towards making earlier diagnosis a reality for the thousands of people diagnosed with cancer each year.

The Be Clear on Cancer programme is run by PHE in partnership with DHSC and NHSE, working closely with Cancer Research UK, clinical colleagues and the wider academic and charity sectors.

PHE has been responsible for the development, marketing and evaluation of all campaigns run since April 2013. They have carried out careful evaluation, often using bespoke analyses of complex datasets in order to establish as best they can the impact of the campaigns.

Professor Chris Harrison

National Clinical Director for Cancer, NHS England

Chair of the Be Clear on Cancer Steering Group (April 2006 to September 2018)

Note: Structure of report

This document summarises the major findings of the Be Clear on Cancer first and second national breast cancer awareness campaigns. Please refer to the Be Clear on Cancer: National breast cancer in women over 70 awareness campaigns 2014 and 2015 report for the full evaluation findings and greater depth on the methodology, evidence and sources.

2. Executive headlines

2.1 The problem

According to NCRAS data, approximately a third of women in England diagnosed with breast cancer are aged 70 and over. About 5,400 women over 70 die from breast cancer each year which equates to around 15 women per day. Survival rates are far higher if breast cancer is diagnosed early. However, breast cancer survival rates are lower in older women, possibly because they are less knowledgeable about breast cancer symptoms and because they may delay presenting to their General Practitioner (GP) when they do discover symptoms.

2.2 History of campaigns

The national breast cancer in women over 70 awareness campaigns were launched in response to this problem. First, local pilot campaigns ran from January to March 2012. They were evaluated positively. For example, there were increases in the number of urgent referrals for breast symptoms in women aged over 70, and in the number of breast cancers diagnosed following urgent referral. On this basis, regional pilot campaigns ran from January to March 2013. Again, results were positive, and referrals of women aged 70 to 79 for breast cancer increased.

Based on the success of the local and regional pilot campaigns, the first national breast cancer in women over 70 awareness campaign ran from **3 February to 16 March 2014**. The 2 core messages were, '*1 in 3 women who get breast cancer are over 70, so don't assume you're past it*' and '*A lump isn't the only sign of breast cancer*'. The second national breast cancer in women over 70 awareness campaign ran from **13 July 2015 to 6 September 2015**. The 2 core messages were reiterated, and campaign materials reinforced that early diagnosis makes breast cancer more treatable and that anyone worried about changes to their breasts should tell their doctor straight away.

Activity related to the 2 national campaigns included television, press and out-of-home advertising on pharmacy bags and screens in GP waiting rooms; online advertising; direct mail of a letter and leaflet (specifically first campaign); public relations (PR) activity to communicate the core messages; leaflets and posters in GP surgeries and other venues; and a campaign website. Translated, easy-to-read, and sign language versions of materials were produced. Both national campaigns were aimed primarily at women aged 70 years and over, but a secondary audience were those in a position to encourage older women with symptoms to visit their GP, such as daughters, referred to as 'influencers'.

2.3 Campaign recognition and public awareness

The first national campaign appears to have raised public awareness of breast cancer in women over 70. In total 81% of respondents had seen at least one of the campaign adverts which is in line with recognition of other Be Clear on Cancer national campaigns when run for the first time. There was a significant increase in the proportion of respondents who mentioned women over 70 as being the age group most at risk of developing breast cancer, from 6% pre-campaign to 18% post-campaign. Similarly, the campaign's core message was clearly understood by the public; for example, the proportion of women mentioning '1 in 3 women who get breast cancer are over 70' rose significantly from 19% pre-campaign to 24% post-campaign.

Regarding the second national campaign, the number of respondents who had seen at least one of the campaign adverts was about the same as for the first national campaign at almost 78%, which was in line with other Be Clear on Cancer national campaigns when run for the second time. As in 2014, the most commonly recalled message among those who had seen or heard some publicity was to visit the GP if they became aware of relevant symptoms. There was a significant increase in awareness of the link between age and breast cancer pre-campaign (8%) to post-campaign (16%). There was no change in beliefs and attitudes, but these were already highly positive. For example, around 9 in 10 women aged 70 and over disagreed that they would be too embarrassed to go to their GP with symptoms, that their GP would be difficult to talk to, or that they would be worried about wasting their GP's time.

2.4 Attendance at GP practices

First national campaign

The first national campaign seems to have had a positive effect on GP attendances. The number of GP attendances for breast symptoms, for women aged 70 years and over, was higher during the campaign than for each previous period (between 22% and 53% higher). It was also slightly higher in the 2014 post-campaign period than in the periods prior to the 2014 campaign (between 7% and 34% higher).

The number of GP attendances during the campaign period was higher than during all the other periods combined: 289 visits compared to an average of 216.6 visits.

There was an increase of 36% in the average number of attendances per week for breast symptoms during the campaign period, compared to the same period in 2013, whereas the change for those with the control symptoms was much smaller at only 5%.

In addition, there were statistically significant increases in the number of attendances for women aged under 70 years, suggesting that the campaign impacted on 'influencers', (ie women under 70 years).

Second national campaign

Data on the effect of the second national campaign on GP attendances indicates that the second campaign seems to have led to a statistically significant increase in the number of GP attendances by women aged 70 years and older with breast symptoms. This should, however, be treated with some caution because these increases are less than those seen in the period following the first national campaign and may reflect long-term variability in GP attendances as opposed to being the result of the second campaign.

2.5 Urgent GP referrals for suspected breast cancer

The number of urgent GP referrals for suspected breast cancer, and the number of breast symptom referrals for women aged 70 years and over, increased significantly in the first national campaign period. Combined breast referrals increased by 67% when comparing February to April 2014 with the same months in 2012. By contrast, there was only a 31% increase in the control group (urgent GP referrals for suspected head and neck cancers).

2.6 Breast cancer diagnosis information from the Cancer Waiting Times (CWT) data

First national campaign

For women aged 70 and over, the first national campaign appeared to result in a smaller but still substantial increase in the number of breast cancer diagnoses via an urgent GP referral for suspected breast cancer and breast symptom referrals. This equates to a 24% increase in diagnoses via these routes when comparing February to April 2014 with the same months in 2012.

Although there was an increase in the number of diagnoses via urgent/breast symptoms GP referrals, the overall percentage of women over 70 diagnosed following referral via these routes decreased. This result is to be expected because, on average, the additional women being referred (who would not normally have been referred) are less likely to have cancer than the cohort of women who would normally be referred.

During the first national campaign, there was a 5% decrease in the detection rate¹ for breast cancer diagnoses or breast symptoms from urgent GP referrals for suspected breast cancer in women aged 70 years and over.

Second national campaign

For women aged 70 and over in England there was a 26% increase in urgent GP referrals for suspected breast cancer when comparing July 2015 to September 2015 with the same months in 2014. There was also a 19% increase in breast symptom referrals, resulting in a combined increase of 24%. In comparison, there was a smaller increase of only 11% in the control group (number of urgent GP referrals for other suspected cancers) over the same period.

The second national campaign may have had an impact on the number of breast cancer diagnoses resulting from urgent GP referrals for suspected breast cancer, but not on the number of diagnoses resulting from breast symptom referrals, for women aged 70 years and over. However, it is difficult to isolate these results from seasonal peaks in previous years.

As with the first campaign, the second national campaign appears to have had some impact on conversion rates from urgent GP referrals for suspected breast cancer and breast symptom referrals for women aged 70 and over. In other words, although there was a rise in the number of referrals for suspected breast cancer in women aged over 70, many of these patients did not receive a cancer diagnosis. Conversion rates were lower at the end of the campaign period (September 2015) than would be expected given underlying trends.

The second national campaign appears to have had some impact on breast cancer diagnoses following an urgent GP referral, as there was a statistically significant increase in cancer diagnoses recorded in the CWT database for women aged 70 years and over.

The second national campaign does not appear to have had an impact on breast cancer detection rates from urgent GP referrals, as there was no statistically significant difference in breast cancer detection rates from urgent GP referrals for suspected breast cancer or breast symptom referrals, for women aged 70 years and over.

¹ Percentage of breast cancer diagnoses recorded in the CWT-database which resulted from an urgent GP referral for suspected breast cancer or breast symptoms

2.7 Emergency presentation rates

Comparing the months during/following the first campaign to the same months during/following the second campaign, there were no significant differences in the proportions of women with breast cancer diagnosed via emergency presentation each month.

2.8 Diagnostic imaging

In the period during and following the first campaign, the number of breast ultrasounds and mammograms for women aged over 70 years increased by 25%, and by 13% for women of all ages, as compared to the same period the previous year. These increases were statistically significant.

There was a statistically significant 9% increase in the number of breast ultrasounds and mammograms for women aged 70 years or over during or following the second national campaign, and a non-significant 4% increase for women of all ages, when compared with the same period the year before.

2.9 Cancers diagnosed

Both the first and second national campaigns appear to have had a positive impact on breast cancer diagnoses in women aged 70 years and over by increasing the number of new cancers diagnosed above the expected number of newly diagnosed cases.

2.10 Stage at diagnosis

The second national campaign might have had an impact on the proportion of breast cancers diagnosed at an early stage (stage 1 or 2) in women aged 70 and over, however there was no evidence to suggest an impact on this proportion for the first national campaign.

2.11 Treatment rates

There is no evidence to suggest that either the first or second national campaigns had an impact on the proportion of women aged 70 and over diagnosed with breast cancer, who underwent lumpectomy or mastectomy.

2.12 One-year survival

Neither the first or second national campaigns appear to have had an impact on one-year survival for women aged 70 and over diagnosed with breast cancer.

2.13 Overall conclusions

In sum, the campaigns appear to have had a significant impact in terms of raising awareness of breast cancer in the target population of women over 70 years of age, and in motivating more women to see their GP. As a result, more diagnostic tests for breast cancer were conducted, including breast ultrasounds and mammograms, and more new cancers were diagnosed. However, the campaigns do not seem to have resulted in many more cancers being diagnosed or treated at an earlier stage and there was no impact on short-term survival rates for women aged 70 years and over diagnosed with breast cancer. These findings and their significance are presented and discussed in detail in the main report.