

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 campaign: February/March 2014

Interim evaluation results

Version 1.0/ September 2016

## About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. It does this through world-class science, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. PHE is an operationally autonomous executive agency of the Department of Health.

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### Introduction

#### Be Clear on Cancer awareness campaigns

Be Clear on Cancer campaigns aim to achieve earlier diagnosis of cancer by raising awareness of the signs and symptoms and encouraging people with those signs and symptoms to see their GP without delay.

The Be Clear on Cancer brand has been used to promote awareness and early diagnosis of specific cancer types since January 2011. Since 2013 the programme has been led by Public Health England working in partnership with the Department of Health and NHS England. Each campaign is tested locally with a view to rolling them out regionally and nationally if they prove to be effective at each stage<sup>1</sup>.

For each Be Clear on Cancer campaign there is a comprehensive evaluation process. Data is collected on a number of metrics to reflect possible campaign impact. These include whether campaigns are raising awareness of signs and symptoms of cancer; more people are being referred urgently for suspected cancer; there is an increase in diagnostic activity; those referred urgently for suspected cancer are diagnosed with cancer; there are increases in the number of cancers diagnosed and if there is evidence of a shift towards earlier stage disease.

#### Breast cancer in women over 70 awareness campaign

The national breast cancer in women over 70 awareness campaign ran from 3 February to 16 March 2014. The campaign was targeted at women over 70 with two main aims: to remind women over 70 that they are still at risk of breast cancer and to raise awareness that a lump is not the only sign of breast cancer. The campaign's key message was '1 in 3 women who get breast cancer are over 70, so don't assume you're past it'. The secondary messaging was 'A lump isn't the only sign of breast cancer. If you notice any changes to your breasts, tell your doctor straight away. Finding it early makes it more treatable and could save your life'.

The campaign activity included television, press and some out-of-home advertising on pharmacy bags and screens in GP waiting rooms. It also included some online advertising. A direct mail comprising a letter and leaflet was sent to around 1.2 million

<sup>1</sup> The decision on which Be Clear on Cancer campaigns will run are informed by a steering group, whose members include primary and secondary care clinicians, analysts and key voluntary sector organisations. A number of factors are taken into account, including all available evaluation data

women aged 65 and over. Following recommendations made after the regional pilot, which ran from January – March 2013, there was no radio element within the main campaign.

PR activity was used to communicate the key messages with the support of case studies, clinical spokespeople and well-known women who had a connection with breast cancer. Leaflets and posters were displayed in GP surgeries and other venues and the campaign website (nhs.uk/breastcancer70) was updated.

There was also some activity aimed specifically at older Indian and black Caribbean women. This included TV, radio and press advertising in specialist ethnic minority media in south Asian languages where appropriate, targeted PR activity and outreach events.

A full and final evaluation report for the national breast cancer in women over 70 awareness campaign will be published when the analysis of all metrics is complete. In advance of the final evaluation report, this interim report provides the results available to date.





**Above:** example of campaign press advertisement (left), and a photograph used in PR activity featuring campaign supporters Barbara Windsor and Miriam Margoyles (right).

## Public awareness and knowledge

This chapter considers whether the breast cancer in women over 70 awareness campaign had an impact on the public awareness and knowledge of breast cancer.

#### Methods

Each Be Clear on Cancer campaign collects information through pre and post campaign surveys which are conducted face to face with a representative sample of the target population. These are carried out by a specially commissioned market research agency (TNS-BMRB), and questionnaires are tailored to extract information about each specific campaign.

A range of topics are covered including awareness of cancer advertising and symptoms, beliefs and attitudes towards cancer and early diagnosis and knowledge and recognition of the relevant campaign material. The aim of the evaluation is to look at changes in campaign recognition and knowledge between pre and post stage interviews. Where possible, a test and control approach has been used to allow for comparisons between areas with and without campaign activity.

For the breast cancer in women over 70 awareness campaign, a pre and post campaign evaluation survey was conducted among the primary and secondary target audiences of women aged 70+ and women aged between 40 to 69 (known as influencers) living in England. Pre campaign interviews were conducted from 18 December 2013 to 26 January 2014 and post campaign interviews from 19 March to 1 April 2014. In total approximately 700 face to face interviews were conducted at both pre and post campaign stages.

#### Interviews achieved

	Total	Women aged 40-69	Women aged 70+
Pre stage	695	359	336
Post stage	731	311	420

#### Campaign awareness and recognition

High levels of awareness of general cancer advertising were evident: three quarters of women (76%) were aware of general cancer advertising and publicity before the campaign and this increased to around eight in 10 (82%) afterwards. Awareness was lower among older women at both stages. Women who claimed to have seen general

cancer advertising were asked to state which type of cancer was the focus of what they had seen or heard. Breast cancer was the type of cancer most frequently recalled and this increased significantly from pre to post stage. This increase was seen among both key age groups (from 39% to 60% among those aged 40 to 69 and from 38% to 51% among those over 70),

When asked which age group or groups are most likely to develop breast cancer, the most common response was 'all age groups equally' (39% pre, 37% post). However, post campaign the proportion who selected older age groups increased (from 6% to 18% for 70s and from 5% to 8% for 80s) suggesting that the campaign message concerning older women being at risk is cutting through. This was particularly the case for older women, where there was a decline in the number who thought that those in their 40s and 50s were most at risk and an increase in the number who thought those in their 70s in particular were most at risk. This indicates a shift in age perceptions among the key age group.

Eight in 10 (81%) of respondents had seen at least one of the campaign adverts, which was in line with recognition of other Be Clear on Cancer national campaigns on first airing. As usual, this was driven by recognition of the TV advert (73%). Four in 10 (41%) had seen an advert in the press and three in ten (28%) had seen a campaign leaflet. Just over one in 10 (13%) recalled receiving the direct mail. Recognition of both the press advertisement and leaflet were higher than previous Be Clear on Cancer campaigns, which may reflect the consistency of branding in these channels in particular.

#### Knowledge of signs/symptoms of breast cancer

At both pre and post stages, eight in 10 spontaneously mentioned a lump as a possible sign of breast cancer. Two thirds were able to describe at least one non-lump symptom (such as discharging nipples or breast changing shape for example). While mentions of a lump were slightly lower among older women (76% of 70+ age group compared with 83% of the 40 to 69 age group at the post stage), there was a larger gap between the two age groups in terms of spontaneous knowledge of non-lump symptoms (48% of over 70s compared with 73% of 40 to 69s at the post stage). Furthermore, mentions of non-lump symptoms fell significantly pre to post campaign among the 70+ age group (from 56% to 48%).

Around three quarters of women were confident in their knowledge of breast cancer symptoms at both the pre and post stage (72% pre and 76% post). Encouragingly there was an increase in those who were very confident in their knowledge (from 19% to 26%). This was mainly driven by the 40 to 69 year old women, (21% to 29%) and overall confidence was higher among this age group at both stages. Levels of confidence were substantially higher (for both age groups) than those recorded for other

Be Clear on Cancer campaigns, both pre and post campaign, most likely due to the high profile of breast cancer.

Knowledge that a lump in your breast is a warning sign of breast cancer was high with over nine in 10 stating that this was a probable or definite warning sign both before (90%) and after (92%) the campaign. Over half at both pre and post stages (54% and 56%) thought it was definitely a warning sign. Respondents were generally less likely to know that a range of other symptoms, including changes to the skin of your breasts or changes to the shape (30%) or size of your breasts (31%), were definitely warning signs for breast cancer.

#### Campaign impact

The campaign's call to action messages were received positively by the majority of women. Seven in 10 (71%) agreed that the advertisements would prompt them to visit their GP if they had any of the symptoms and six in 10 (60%) agreed that the advertising would prompt them to talk to somebody close to them to make sure they looked out for symptoms. Women in the influencer group (40 to 69) were more likely to strongly agree with the latter statement (34% compared with 23% of 70+), indicating that this group are indeed more likely to take on the influencer role.

Some form of action was taken by 15% of those who recognised the campaign, with both age groups equally likely to have done something. This is fairly low compared with other Be Clear on Cancer campaigns. However, the most common form of action taken was to make an appointment with a GP (5%) which is broadly in line with other campaigns.

#### Breast cancer and age

The correct belief that one in three women diagnosed with breast cancer are over 70 increased significantly post campaign from 19% to 24%, mainly driven by those aged 40 to 69. There was an increase post campaign in the number who thought women in their 70s or 80s were the most likely age groups to develop breast cancer. Women aged 70+ were less likely to believe that this was most likely to affect women in their 40s or 50s following the campaign, demonstrating a change in perceptions of the risk at an older age.

Only a quarter (25%) of women strongly agreed that treatment for breast cancer is just as successful for older women as it is for younger women and this belief was less likely to be held by the older age group (20% compared with 27% of 40 to 69 age group). However, over half of women (55%) strongly agreed that early diagnosis of breast cancer made it more treatable (55%) with younger women more positive (58% compared with 47% in the 70+ age group).

Around six in 10 women said that they would see their GP on the same day that they noticed a lump in their breast (60% pre and 63% post). Slightly fewer women said that they would visit their doctor on the same day if they noticed a change to their breasts other than a lump at both the pre and post stage (53% pre and 57% post). It is therefore important to continue reinforcing the non-lump message.

# Two week wait referrals and related cancer diagnoses

This chapter considers whether the national breast cancer in women over 70 awareness campaign had an impact on the number of urgent GP referrals for suspected breast cancer, referrals for breast symptoms or combined referrals or on cancer waiting times (CWT) recorded information on breast cancer diagnoses.

#### Methods

Full methodology details are provided in 'Interim evaluation reports for Be Clear on Cancer campaigns: Methodology' (NCIN 2016) with the following campaign-specific notes.

Analysis considers the two types of so-called 'two week wait' referrals related to breast cancer: urgent GP referrals for suspected breast cancer or breast symptom referrals. It also considers breast cancer diagnoses (ICD10 C50, D05).

As the campaign ran from 3 February to 16 March 2014, the campaign, post campaign and comparison periods were defined as follows:

Period	<ul><li>Two week wait referrals</li><li>Cancer diagnoses resulting from a two week wait referral</li><li>Conversion rate</li></ul>	- Cancer diagnoses recorded in the CWT-Db - Detection rate
Campaign	February – April 2014	March – May 2014
Comparison	February – April 2012	March – May 2012
Post-campaign	May - August 2014	June – September 2014
Post-campaign	May August 2012	luna Cantambar 2012
comparison	May – August 2012	June – September 2012

As the regional pilot campaign affected the number of referrals, and related figures, for January 2013 onwards, data for the national campaign (in 2014) is compared to that for the same period two years previously (2012). This comparator is not ideal considering the large impact of the more general trend for increasing referral but the months affected by the regional pilot campaign were considered too closely aligned for a one year comparison to be meaningful.

The number of two week wait referrals has continued to increase year-on-year and so it is likely that some changes in the number of referrals will be due to this underlying

trend. To provide an indication of the increase in referrals that was not associated with the campaign, results for urgent GP referrals for suspected breast cancer and breast symptom referrals were compared to results for urgent GP referrals for suspected head and neck cancers.

The regional pilot campaign ran in the East and West Midlands (Three Counties, Arden, Pan Birmingham, Greater Midlands and Anglia former cancer network areas) from January to March 2013. Residents of this area were likely to have already seen, and possibly reacted to, the campaign materials (including TV and radio advertisements). This meant that in this area the national campaign may have had a different impact as it acted as more of a reminder campaign than an initial awareness campaign. Therefore, an overall comparison of the impact in the East and West Midlands regional pilot area and in England, excluding both the regional pilot area and the local pilot area (the 'control' area), provides an indication of the similarity or difference in the scale of impact when the awareness activities are repeated.

#### Two week wait referrals

(Urgent GP referrals for suspected breast cancer or breast symptom referrals, presented by month first seen.)

There has been an upward trend in the number of urgent GP referrals for suspected breast cancer and breast symptom referrals for women aged 70 but the beginning of the national breast cancer in women over 70 awareness campaign coincided with clear, sharp increases in the number of referrals with much bigger increases than would be expected from the long term trend (Figure 1). Although there was a similar upward trend in the number of urgent GP referrals for suspected head and neck cancers in women aged 70+, there was not a similar spike from February 2014 which suggests the large increase in the number of urgent GP referrals for suspected breast cancer and breast symptom referrals in the target age group coinciding with the start of the campaign was due to the campaign.

For example, in England in February to April 2014 there were 64% more urgent GP referrals for suspected breast cancer for women aged 70+ than there were in February to April 2012, an increase of 4,062 referrals from 6,395 to 10,457 (Table 1). There was a much smaller increase in the number of referrals for suspected head and neck cancers in women aged 70+, a 31% increase from 3,694 to 4,827 referrals (Table 2).

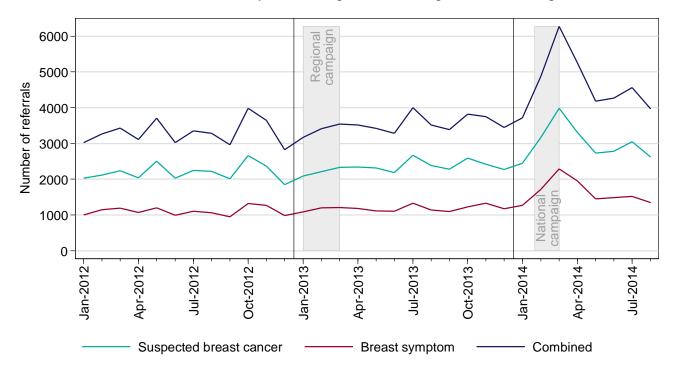
The increase in the number of urgent GP referrals for suspected breast cancer and breast symptom referrals was smaller in the months following the end of the campaign than during the campaign. For example, there were only 24% more urgent GP referrals for suspected breast cancer in England in May to August 2014 than May to August 2012, an increase of 2,177 from 9,002 to 11,179. This increase was only a little larger

than for the number of urgent GP referrals for suspected head and neck cancers for women aged 70+ in England over the same period, 22% from 6,186 to 7,561.

**Table 1:** Number of urgent GP referrals for suspected breast cancer, breast symptom referrals and combined, with referral rate and percentage change in number of referrals, from February-April 2012 and February-April 2014, England, women aged 70+

			February-April				
			%			Referral rate	
Referral type		Referrals	Change in number	P-value	Estimate	95% CI	
Suspected	2012	6,395	63.5	<0.001	744.8	(726.5, 763.5)	
breast cancer	2014	10,457	03.5	<0.001	1,257.4	(1,233.1, 1,282.0)	
Breast	2012	3,408	74.7	<0.001	410.0	(396.2, 424.1)	
symptom	2014	5,955	14.1	<0.001	737.8	(719.1, 757.0)	
Combined	2012	9,803	67.4	-0.001	1,154.8	(1,131.8, 1,178.1)	
Combined	2014	16,412	67.4	<0.001	1,995.2	(1,964.5, 2,026.3)	

**Figure 1:** Monthly number of urgent GP referrals for suspected breast cancer, breast symptom referrals and combined, from January 2012- August 2014, England, women aged 70+



**Table 2:** Number of urgent GP referrals for suspected head and neck cancers, with referral rate and percentage change in number of referrals, from February-April 2012 and February-April 2014, England, women aged 70+

		February-April				
Overall		%			Referral rate	
Over	lali	Referrals	Change in number	P-value	Estimate	95% CI
	2012	3,694	20.7	0.004	431.3	(417.3, 445.6)
England	2014	4,827	30.7	<0.001	575.6	(559.3, 592.3)

The impact of the campaign was generally similar in the regional pilot area and the control area.

For women aged under 70, trends provided some evidence of an increase in referrals during the campaign period. However, the 39% increase in suspected breast cancer referrals, 23% increase in breast symptom referrals and 31% increase in combined breast referrals were much smaller than the increases for those aged 70+ and more comparable to the 34% increase in referrals for suspected head and neck cancers.

The campaign appears to have led to a large increase in the number of urgent GP referrals for suspected breast cancer and in the number of breast symptom referrals in the target age group during the campaign. However, the longer-term impact of the campaign on the number of such referrals in the target age group appears limited.

#### Cancer diagnoses resulting from a two week wait referral

(Those breast cancer diagnoses resulting from an urgent GP referral for suspected breast cancer or breast symptom referral, presented by month first seen.)

For women aged 70+, there were clear increases in the number of breast cancer diagnoses resulting from urgent GP referrals for suspected breast cancer or breast symptom referrals in February to April 2014, the campaign months, when compared with February to April 2012 (Table 3). There were particularly large increases in March 2014 (Figure 2).

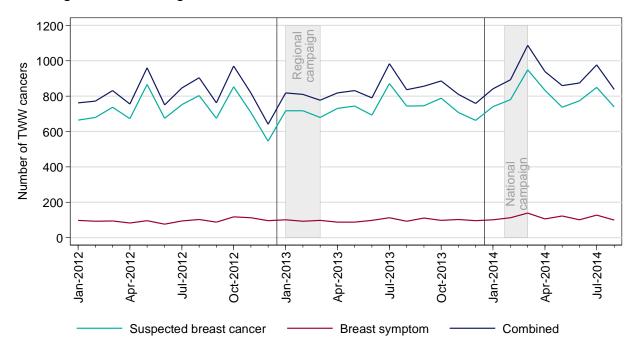
The number of breast cancer diagnoses resulting from an urgent GP referral for suspected breast cancer in women aged 70+ increased by 23% from 2,090 to 2,564 diagnoses. Similar relative increases were observed in breast cancer diagnoses resulting from a breast symptom referral.

The increase in the number of breast cancer diagnoses resulting from urgent GP referrals for suspected breast cancer did not continue into the months following the campaign. There may have been a small sustained impact on diagnoses following a breast symptom referral; there were 22% more such diagnoses in May to August 2014 than May to August 2012, an increase to 449 from 367 diagnoses.

**Table 3:** Number of breast cancer diagnoses resulting from urgent GP referrals for suspected breast cancer, breast symptom referrals and combined, with percentage change in number of cancers, from February-April 2012 and February-April 2014, England, women aged 70+

	February-April					
Referral type	TWW Ca	ncers	% Change	P-value		
	2012	2014	in number	r-value		
Suspected breast cancer	2,090	2,564	22.7	< 0.001		
Breast symptom	270	357	32.2	< 0.001		
Combined	2,360	2,921	23.8	<0.001		

**Figure 2:** Monthly number of breast cancer diagnoses resulting from an urgent GP referral for suspected breast cancer, breast symptom referrals and combined from January 2012-August 2014, England, women aged 70+



Changes in the number of breast cancer diagnoses resulting from combined referrals were similar in the regional pilot area and the control area.

For women aged under 70 during the campaign period there were much smaller increases with a 5% increase in the number of breast cancer diagnoses resulting from either an urgent GP referral for suspected breast cancer or a breast symptom referral. This increase was not statistically significant and neither were changes for diagnoses

from either route. There were no statistically significant changes in the number of such diagnoses following the end of the campaign for women aged under 70.

The national breast cancer in women over 70 awareness campaign appeared to have an impact on the number of breast cancer diagnoses resulting from urgent GP referrals for suspected breast cancer and breast symptom referrals in the campaign months in women aged 70+.

#### Conversion rate

(Percentage of urgent GP referrals for suspected breast cancer or breast symptom referrals resulting in a diagnosis of breast cancer, presented by month first seen.)

For urgent GP referrals for suspected breast cancer and breast symptom referrals, the breast cancer conversion rates in women aged 70 and over have been slowly decreasing since at least January 2012 (Figure 3). This decrease reflects that there is steady increasing trend in referrals, but a relatively stable number of cancers resulting from these referrals.

The very large increase in urgent GP referrals for suspected breast cancer coinciding with the start of the national breast cancer in women over 70 awareness campaign caused a clear fall in the conversion rate during the campaign months, with the breast cancer conversion rate of urgent GP referrals for suspected breast cancer in women aged 70+ falling by 8.2 percentage points from 33% in February to April 2012 to 25% in February to April 2014 (Table 4).

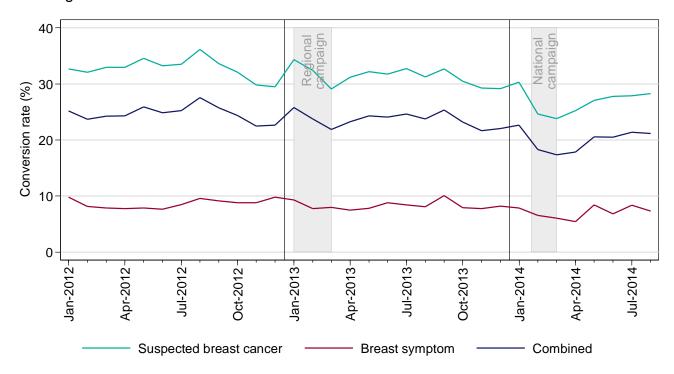
The breast cancer conversion rate of breast symptom referrals in women aged 70+ was much lower than the breast cancer conversion rate of urgent GP referrals for suspected cancer in this age group. During the campaign, 25% of urgent GP referrals for suspected breast cancer in women aged 70+ resulted in a breast cancer diagnosis compared with just 6% of breast symptom referrals.

In the months following the campaign, the conversion rates for women aged 70+ began to return to the long-term trend and appeared to be in line with the long-term trend by July or August 2015. The breast cancer conversion rate of urgent GP referrals for suspected breast cancer in women aged 70+ in May to August 2014 was 28%, three percentage points higher than during the campaign period.

**Table 4:** Breast cancer conversion rates for urgent GP referrals for suspected breast cancer, breast symptom referrals and combined, with change, from February – April 2012 and February – April 2014, England, women aged 70+

	February-April						
Referral type	2012		2	014	%-Point		
rtoromartypo	Conv. Rate (%)	95% CI	Conv. Rate (%)	Conv. Change P-v		P-value	
Suspected breast cancer	32.7	(31.5, 33.8)	24.5	(23.7, 25.4)	-8.2	<0.001	
Breast symptom	7.9	(7.1, 8.9)	6.0	(5.4, 6.6)	-1.9	<0.001	
Combined	24.1	(23.2, 24.9)	17.8	(17.2, 18.4)	-6.3	<0.001	

**Figure 3:** Monthly breast cancer conversion rates for urgent GP referrals for suspected breast cancer, breast symptom referrals and combined from January 2012-August 2014, England, women aged 70+



Decreases in the breast cancer conversion rates were a little smaller in the regional pilot area than the control area.

For women aged under 70, the breast cancer conversion rates of urgent GP referrals for suspected breast cancer and breast symptom referrals reduced slightly during the campaign and were 0.8 percentage points lower in February to April 2014, 3.1%, than in February to April 2012, 3.9% with a similar reduction seen in the months following the end of the campaign.

#### Cancer diagnoses recorded in the cancer waiting times database

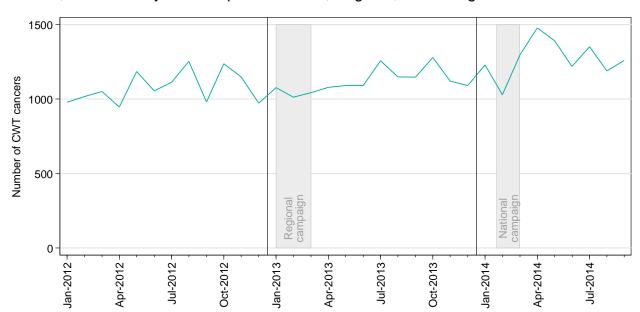
(All breast cancer diagnoses recorded in the CWT database (CWT-Db), presented by month of first treatment.)

There appears to have been a slight upward trend in the number of CWT-recorded breast cancer diagnoses in women aged 70+ since January 2012 (Figure 4). However, in the campaign months, particularly April 2014, there was a considerable increase in the number of CWT-recorded breast cancer diagnoses above the apparent long-term trend. This fell off after the campaign months but the number of CWT-recorded diagnoses may still have been raised until at least September 2014.

For example, in the campaign months March to May 2014 there was a 31% increase in the number of CWT-recorded breast cancer diagnoses in women aged 70+ when compared to March to May 2012 (Table 5), from 3,179 to 4,164 diagnoses. In the months following the campaign, June to September 2014, there was a 14% increase in the number of CWT-recorded breast cancer diagnoses in women aged 70+ when compared to June to September 2012, from 4,399 to 5,016 diagnoses.

**Table 5:** Number of breast cancer diagnoses recorded in the cancer waiting times database, with percentage change in number of cancers, from March-May 2012 and March-May 2014, England, women aged 70+

	March-May			
Overall	CWT Cancers		% Change	P-value
	2012	2014	in number	r-value
England	3,179	4,164	31.0	<0.001



**Figure 4:** Monthly number of breast cancer diagnoses recorded in the Cancer Waiting Times database, from January 2012-September 2014, England, women aged 70+

There were similar increases in the number of breast cancer diagnoses recorded in the cancer waiting times database in the regional pilot area and the control area.

For women aged under 70, there was no statistically significant change in the number of breast cancer diagnoses recorded in the cancer waiting times database in the campaign months, March to May 2014, compared to March to May 2012. Although in the months following the end of the campaign, June to September 2014, there were 9% more breast cancer diagnoses in women aged under 70 recorded in the Cancer Waiting Times database than two years earlier, it is not clear that this was related to the campaign.

The increases in the number of breast cancer diagnoses recorded in the cancer waiting times database for those aged 70+ appeared larger than might have been expected from the long-term trend, and particularly for the campaign period, were probably related to the national breast cancer in women over 70 awareness campaign.

#### **Detection rate**

(Percentage of CWT-Db recorded breast cancer diagnoses which resulted from an urgent GP referral for suspected breast cancer or breast symptom referral, presented by month of first treatment.)

The detection rate for breast cancer diagnoses in women aged 70+ was relatively stable between January 2012 and September 2014 (Figure 5) with a suggestion of a slight decreasing trend. The national breast cancer in women over 70 awareness campaign coincided with a fall in the detection rate.

The detection rate for breast cancer diagnoses by urgent GP referral for suspected breast cancer in women aged 70+ was 69% in March to May 2012 but reduced by 6 percentage points to 63% in March to May 2014 (Table 6). However, there was no apparent change in the detection rate for breast cancer diagnoses by breast symptom referral in women aged 70+ which remained approximately 8% in both March to May 2012 and March to May 2014.

Breast cancer is an unusual cancer site in that there is an active and effective screening programme for those aged 50 to 70. The detection rate fell because the number of additional cancer cases resulting from an urgent GP referral for suspected breast cancer and first treated in March to May 2014 (similar to the results in Table 3) was smaller than the number of additional cancers recorded in the CWT data (Table 5). In particular, the detection rate does not account for the impact of screening. Preliminary results show that for the six week campaign period there was a net increase of 12,432 women aged over 70 self-referring for breast screening when compared to the same period in 2011. Estimates of the number of screen-detected breast cancer diagnoses showed a 104% increase between March-May 2012 and March-May 2014, for women aged 70+2. While some of this increase in the number of screen-detected cancers is likely to be related to the breast screening age extension trial, some may be caused by an increase in women self-referring for screening during the national breast cancer in women over 70 awareness campaign.

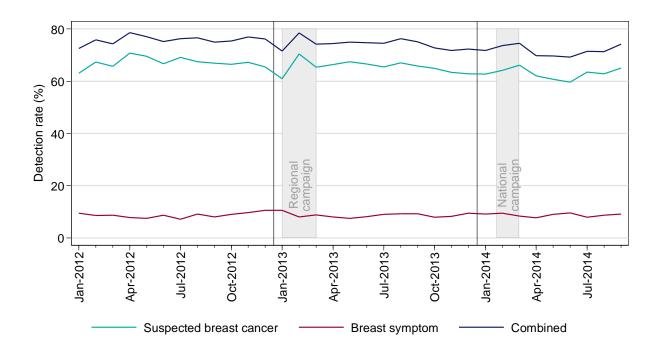
**Table 6:** Detection rate for breast cancer diagnoses by urgent GP referral for suspected breast cancer, breast symptom referral and combined, with change, from March-May 2012 and March-May 2014, England, women aged 70+

	March-May					
Referral type	2012		2	014	0/ Doint	
Referral type	Det. Rate (%)	95% CI	Det. Rate (%)	Change		P-value
Suspected breast cancer	68.7	(67.0, 70.3)	62.9	(61.4, 64.4)	-5.8	<0.001
Breast symptom	8.0	(7.1, 9.0)	8.3	(7.5, 9.2)	0.4	0.561
Combined	76.6	(75.1, 78.0)	71.2	(69.8, 72.6)	-5.4	<0.001

screening QARCs.

<sup>&</sup>lt;sup>2</sup> Estimated from CWT data, which can only provide an initial estimate of the number of screen-detected breast cancer diagnoses. Complete numbers should be calculated from a combination of cancer registration data and data from breast

**Figure 5:** Monthly detection rate for breast cancer diagnoses by urgent GP referral for suspected breast cancer, breast symptom referral and combined, from January 2012-September 2014, England, women aged 70+



For the regional pilot area there were no statistically significant changes in the detection rate for breast cancer for women aged 70+.

Between March to May 2012 and March to May 2014 there were no statistically significant changes in the detection rate for breast cancer in women aged under 70, neither by urgent GP referral for suspected breast cancer nor by breast symptom referral.

### Conclusion

The breast cancer awareness national campaign appears to have been successful in terms of raising public awareness of breast cancer in women over 70. There was a significant increase in the proportion of women who mentioned women over 70 as being the age group most at risk of developing breast cancer. Overall this rose from 6% at the pre campaign stage to 18% at the post stage. Similarly the main message, '1 in 3 women who get breast cancer are over 70' has also made an impact. Overall the proportion of women mentioning '1 in 3 is aged over 70' rose significantly from 19% pre to 24% post.

The campaign also appears to have resulted in large increases in the number of urgent GP referrals for suspected breast cancer and in the number of breast symptom referrals. For women aged 70+, there was a 67% increase in combined breast referrals in the campaign period, February to April 2014, compared to February to April 2012. In comparison, there was a 31% increase in urgent GP referrals for suspected head and neck cancers.

Further, for women aged 70+, the campaign appeared to result in smaller, but still substantial, increases in the number of breast cancer diagnoses resulting from suspected breast cancer and breast symptom referrals (24% increase from February to April 2012 to February to April 2014) and also in the number of breast cancers recorded in the cancer waiting times database (31% increase for March to May 2014 compared to the same period in 2012).

The campaign also appeared to have caused a further decrease in the conversion rate in addition to the long-term trend.

There was also a decrease for those aged 70+ in the detection rate for breast cancer from urgent GP referrals for suspected breast cancer. However, this may be explained by some evidence of additional screen-detected cancers suggesting there was an impact on the national breast cancer screening programme, possibly including self-referrals.

There was some evidence of a small impact on those aged under 70, particularly for suspected breast cancer referrals in the campaign period.

Evaluation of this campaign will continue as data becomes available for further metrics including cancer registration data and a final evaluation report will be published when the analysis of all metrics is complete.