BreastCheck
The National Breast Screening Programme

2010-2011

Programme Report

Contents

Women's Charter

Screening commitment

- All staff will respect your privacy, dignity, religion, race and cultural beliefs
- Services and facilities will be arranged so that everyone, including people with special needs, can use the services
- Your screening records will be treated in the strictest confidence and you will be assured of privacy during your appointment
- Information will be available for relatives and friends relevant to your care in accordance with your wishes
- You will always have the opportunity to make your views known and to have them taken into account
- You will receive your first appointment within two years of becoming known to the programme
- Once you become known to the programme you will be invited for screening every two years while you are aged 50 to 64 years
- You will be screened using high quality modern equipment which complies with National Breast Screening Guidelines

We aim

- To give you at least seven days notice of your appointment
- To send you information about screening before your appointment
- To see you as promptly as possible to your appointment time
- To keep you informed about any unavoidable delays which occasionally occur
- To provide pleasant, comfortable surroundings during screening
- To ensure that we send results of your mammogram to you within three weeks

If re-call is required
We aim

- To ensure that you will be offered an appointment for an Assessment Clinic within two weeks of being notified of an abnormal result
- To ensure that you will be seen by a Consultant doctor who specialises in breast care
- To provide support from a Breast Care Nurse
- To ensure you get your results from the Assessment Clinic within one week
- To keep you informed of any delays regarding your results

If breast cancer is diagnosed
We aim

- To tell you sensitively and with honesty
- To fully explain the treatment available to you
- To encourage you to share in decision-making about your treatment
- To include your partner, friend or relative in any discussions if you wish
- To give you the right to refuse treatment, obtain a second opinion or choose alternative treatment, without prejudice to your beliefs or chosen treatment
- To arrange for you to be admitted for treatment by specialised trained staff within three weeks of diagnosis
- To provide support from a Breast Care Nurse before and during treatment
- To provide you with information about local and national cancer support groups and self-help groups

Tell us what you think

- Your views are important to us in monitoring the effectiveness of our services and in identifying areas where we can improve
- You have a right to make your opinion known about the care you received
- If you feel we have not met the standards of the Women's Charter, let us know by telling the people providing your care or in writing to the programme
- We would also like to hear from you if you feel you have received a good service. It helps us to know that we are providing the right kind of service - one that satisfies you
- Finally, if you have any suggestions on how our service can be improved, we would be pleased to see whether we can adopt them to further improve the way we care for you

You can help by

- Keeping your appointment time
- Giving at least three days notice if you wish to change your appointment
- Reading any information we send you
- Being considerate to others using the service and the staff
- Please try to be well informed about your health

Let us know

- If you change your address
- If you have special needs
- If you already have an appointment
- Tell us what you think - your views are important.
- Freephone 1800 45 45 55 www.breastcheck.ie

Introduction from the Director, National Cancer Control Programme

Cancer, its prevention, diagnosis and treatment are a major challenge for our society. Each year approximately 20,000 Irish people develop cancer and 7,500 die of the disease. Cancer control aims to prevent and cure cancer, while increasing survival and quality of life for those who develop cancer.

The National Cancer Control Programme (NCCP), part of the Health Service Executive (HSE), was established in 2007 to provide governance, integration and support to create the essential framework for cancer control in Ireland.

In April 2010, the National Cancer Screening Service (NCSS), which is responsible for BreastCheck – The National Breast Screening Programme and CervicalCheck – The National Cervical Screening Programme, joined the NCCP.

Breast cancer is the most commonly diagnosed cancer in women in Ireland and has the second highest mortality rate. Nearly 2,500 women are diagnosed with breast cancer in Ireland each year.

BreastCheck is an integral part of breast cancer control in Ireland. Seventy five per cent of breast cancer patients are over the age of 50. The cumulative risk of a woman developing breast cancer before the age of 40 is 1 in 201, before the age of 50 is 1 in 48 and before the age of 65 is 1 in 16.

BreastCheck is a screening service for women aged 50 to 64 who have no symptoms of breast cancer. The aim of BreastCheck is to reduce the number of breast cancer mortalities in these women, by detecting breast cancer at the earliest possible stage. At this early stage, a woman has greater treatment options available to her, and her chosen treatment is likely to be less extensive and more successful.

Improving the quality of symptomatic breast disease services in Ireland is a key priority for the NCCP. Primary diagnostic and surgical services have been centralised into eight designated cancer centres. These are located in Beaumont Hospital, the Mater University Hospital, St James's Hospital, St Vincent's University Hospital, Cork University Hospital, Waterford Regional Hospital, Mid Western Regional Hospital and Galway University Hospital. In addition there is a satellite centre at Letterkenny General Hospital for breast cancer services.

Dr Susan O'Reilly
Director
National Cancer Control Programme

The eight centres, together with the NCCP have put enormous efforts into improving the quality of symptomatic breast disease services delivered in Ireland.

Designated centres operate a multidisciplinary team approach, to ensure the highest standard of care is delivered to women in the diagnosis and treatment of breast cancer. Prompt access to cancer services at each of the designated centres has been both a key target and success for the NCCP.

Women can be assured of the high quality service provided by all eight designated cancer centres and importantly, that a standardised system of care is delivered at each, regardless of a woman's location.

The symptomatic service and screening service operate in line with the highest international standards. Women in Ireland today can have undoubted confidence in the breast cancer service they receive. This combined approach to detecting and treating breast cancer will result in increased rates of survival, reduced mortalities and better, less invasive, treatments for women who have a breast cancer detected.

This report demonstrates a successful performance by BreastCheck. Certain challenges were experienced in maintaining a full complement of staff in mammography and other critical posts and in inviting women to the programme for the first time. However, BreastCheck is striving to maintain continued excellence in the programme.

I would like to take this opportunity to congratulate all involved in the delivery of BreastCheck for their achievements to date, and wish them every success in the future.

Dr Susan O'Reilly
Director, National Cancer Control Programme

Report from the Acting Director, National Cancer Screening Service

The National Cancer Screening Service (NCSS) was established on 1 January 2007. The NCSS encompasses BreastCheck – The National Breast Screening Programme and CervicalCheck – The National Cervical Screening Programme. The NCSS is currently developing Ireland's first national colorectal screening programme, for men and women aged 55-74. The programme is scheduled for introduction later in 2012, initially targeting men and women aged 60-69.

Majella Byrne
Acting Director
National Cancer Screening Service

Due to its proven expertise in the development and delivery of national, population-based screening services, the NCSS was tasked with developing its first non-cancer screening programme, a national diabetic retinopathy screening programme. The programme will target diabetics from age 12 upwards.

BreastCheck first became available to women in 2000. Learnings from the BreastCheck screening model were used to develop the former Irish Cervical Screening Programme (ICSP) Phase One into CervicalCheck, which became available to over 1.1 million women nationwide in September 2008. In September this year, CervicalCheck completed its first successful three year screening round.

The NCSS has an unequalled expertise in delivering screening programmes. Screening programmes are unique in that they target a 'well' (asymptomatic) population. In general, the aim of screening is to detect and treat a disease at the earliest possible stage, thereby reducing incidence and mortality in the screened population.

Synergies exist across screening programmes, and learnings from BreastCheck and CervicalCheck are integral to the planning for Ireland's first colorectal cancer and diabetic retinopathy screening programmes.

Challenges

With the health sector recruitment moratorium still in operation, the NCSS has adapted to deliver its existing screening programmes, while developing two new programmes, within restricted resources. Operational and clinical staff are sharing their skills and strengthening connections across screening programmes, in an effort to minimise any adverse effects on the populations invited for screening.

One of the key challenges for the BreastCheck programme is a severe shortage of radiographers in Ireland. In its Women's Charter (page 1), BreastCheck has a clear commitment to screen women every two years. The length of time it takes to screen all eligible women in an area can vary, and sometimes it can take longer than planned. This may be due to the different population size in an area or recent population growth, unexpectedly high demand or most often, staff shortages.

While BreastCheck does its very best to offer every woman her next mammogram on time, currently the programme is challenged in meeting this commitment in every case. In 2010 the programme fell below the target of 90 per cent for the proportion of women re-invited for screening within 27 months of invitation at previous round. However, 91.3 per cent of women were re-invited within 28 months.

At time of publication, within BreastCheck a significant number of posts remain vacant. Due to the recruitment moratorium these have remained vacant for some time, and as a result, BreastCheck was unable to meet all of its screening targets in 2010. BreastCheck has secured approval for a number of radiography posts and recruitment is now underway.

The intrinsic value from a health perspective of call, re-call screening programmes such as BreastCheck, is in the repeat nature of the test at prescribed intervals, in order that cancers can be detected at an early stage. Increasing this interval may impact the effectiveness of the programme. The outcome of the recruitment moratorium may have the unintended, but adverse effect of diluting the impact of the screening programme as a cancer control measure.

However, during such challenging times, the NCSS has been innovative in attempting to maintain its screening schedule. Clinical staff, including radiographers and radiologists have been extremely flexible and have travelled between BreastCheck units in an effort to offer women their screening appointments on time. In addition BreastCheck has at times commissioned extra assistance from a third party provider on a short-term basis, to provide screening services.

In 2010, the number of women offered hospital admission for treatment within three weeks of diagnosis of breast cancer, fell below the target set out in the BreastCheck Women's Charter. Providing timely admission has proved challenging at times and BreastCheck is working closely with its host hospitals to develop a service response to address this issue.

Extension of the screening age

As outlined in the Programme for Government, it has long been the intention of the NCSS to extend the BreastCheck programme to women aged 69. There is clear evidence to support the extension of the screening age upwards from 65 to 69. During 2012 BreastCheck will plan for the introduction of the upward extension of the age range on a phased basis. However, the first priority for the programme is a return to screening the current population on time. Appropriate resources will be needed for the age range extension.

Members of the BreastCheck Executive Management Team

Dr Ann O'Doherty

Dr Fidelma Flanagan

Dr Alissa Connors

Dr Aideen Larke

Majella Byrne

Orla Laird

BreastCheck screening highlights

Despite the challenges faced by the programme, BreastCheck experienced a number of achievements during the reporting period, including the completion of first round screening in the south and west.

During 2010 and early 2011, 120,730 women attended their BreastCheck mammogram and the acceptance rate of invitation to screening again surpassed the BreastCheck target of 70 per cent. Of all women screened, 5,504 were re-called for assessment following their initial screening mammogram and 814 women had a breast cancer detected, representing 6.74 cancers for every 1,000 women screened.

In 2010 the major increase in the numbers of women invited and screened were in those invited or screened for the second, or subsequent time. In 2010, 46,405 women were screened by BreastCheck for the first time and 74,325 women had previously had at least one BreastCheck mammogram. In 2009, 65,572 of the women screened were invited for their first mammogram and 55,588 women had previously had at least one BreastCheck mammogram. This increase in the number of women screened for the subsequent time, reflects the completion of the first round of the national expansion of BreastCheck.

Among those who have previously not attended their screening appointment, the acceptance rate is low and continues to fall, due to persistent non-attendance by some women who neither attend nor formally opt-out of the programme. As a result they continue to be invited for screening. Among those women who have previously attended and are re-invited for subsequent screening, the acceptance rates continue to be high.

Members of the BreastCheck Multidisciplinary Consultants Quality Assurance Committee

Overall in 2010:

- BreastCheck screened 120,730 women, compared to 121,160 women in 2009, 92,061 in 2008 and 66,527 women in 2007.
- 814 breast cancers were detected, compared to 845 in 2009*, 672 cancers in 2008 and 396 cancers in 2007.
- For 46,405 women it was their first BreastCheck mammogram.
- 74,325 women had previously had at least one BreastCheck mammogram.

* The reduction in the number of cancers detected in 2010, in comparison to 2009, in part reflects the higher number of women receiving their second or subsequent BreastCheck mammogram.

Since BreastCheck began screening in February 2000 to 30 November 2011, the programme has provided 826,210 mammograms to 368,851 women and detected 5,071 breast cancers.

Review of the NHS breast screening programme

There has been much international debate in recent years on the benefits and potential harms of breast screening, with many contradictory studies published. The NCSS has welcomed the recently announced review of the NHS breast screening programme in the UK, and intends to remain in close contact with its UK screening colleagues during the review period.

A key issue highlighted in the UK is that women are not being adequately informed of the potential harms of breast screening. BreastCheck has a clear commitment to provide easy-to-understand, transparent information about the breast screening process to women who are invited for screening. BreastCheck information materials are regularly reviewed and updated. Every woman invited for screening receives information leaflets directly by post, in advance of her appointment. The leaflets were developed in conjunction with the National Adult Literacy Agency (NALA).

In addition to general information about the breast screening process, the leaflets advise that women of any age can get breast cancer – but that the risk increases with age, that not all breast cancers can be found by a mammogram, that some women may find the mammogram painful and that some non-invasive cancers (known as Ductal Carcinoma in Situ or DCIS) will be found by screening. Women who would like more detailed information about DCIS and the benefits and limits of breast screening are directed to the BreastCheck Freephone information line or the website for a detailed factsheet.

International evidence is important in the shaping and developing of screening programmes. As with many cancers, early diagnosis and prompt treatment give the best chance of a good outcome. In Ireland, breast screening is just one element of a quality assured and comprehensive cancer control programme. Breast cancer survival rates are improving as a combined result of screening, early detection and better and more effective treatment options.

BreastCheck continues to encourage all eligible women to attend their screening appointment when invited. BreastCheck is working hard at maintaining a consistent screening service nationwide within severely restricted circumstances. While the numbers of women screened in 2010 is marginally less than those screened in 2009, there are still high numbers of women being screened and cancers detected.

Conclusion

In May 2011, Tony O'Brien stepped down as director of the NCSS and associate director of the NCCP, to take up a new role with the HSE as director of clinical strategy and programmes and chief operating officer at the Special Delivery Unit, Department of Health. Tony was appointed director of BreastCheck in 2002 and led the programme to nationwide expansion. He oversaw the establishment of the NCSS in January 2007 and the introduction of CervicalCheck to women nationwide in September 2008. Tony has been instrumental in ensuring women in Ireland are offered screening programmes that operate in line with the highest international quality standards.

As deputy director, I took on the role of acting director of the NCSS from May 2011.

I sincerely thank all involved with the BreastCheck programme for their efforts in maintaining screening. In 2010 BreastCheck faced unprecedented obstacles in delivering the programme and without the dedication and commitment of staff, BreastCheck could not possibly have delivered the excellent service or achieved the levels of screening, recorded in this report.

Despite the challenges and the difficult working environment, BreastCheck offers women in Ireland a world-class screening service that is free of charge, at point of delivery.

I urge every woman aged 50 to 64 to attend her screening appointment when invited. I also ask those women who are already part of the BreastCheck programme to encourage the women in their lives to attend when invited.

I thank Minister for Health, Dr James Reilly and our colleagues in the Department of Health and the Cancer Policy Unit for their continued support of the BreastCheck programme.

Finally, I thank the 120,730 women who availed of BreastCheck in 2010. Without their participation and support, BreastCheck could not achieve its primary goal of reducing mortality from breast cancer in Ireland.

Majella Byrne
Acting Director
National Cancer Screening Service


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BreastCheck
Screening


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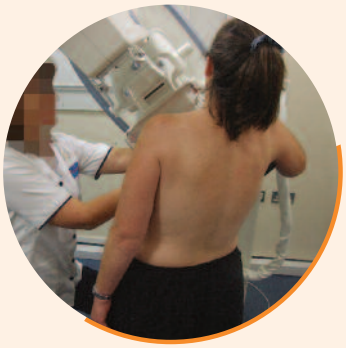



BreastCheck
www.breastcheck.ie

Message from the Lead Clinical Director, BreastCheck

Breast screening, in conjunction with an improved symptomatic breast cancer service and improved treatment options has led to increased breast cancer survival rates in Ireland. However, despite this improvement, we must continue to focus on the early detection of breast cancer to improve survival rates further, and ultimately reduce mortality from breast cancer in Ireland.

Dr Ann O'Doherty
Lead Clinical Director
BreastCheck – The National Breast Screening Programme

Breast screening is a complex process. For most women, their screening journey involves just one step – attending for a screening mammogram. The vast majority of women screened by BreastCheck are found to be perfectly healthy and are re-called for their next mammogram approximately every two years, until they reach 65. For some, the journey is a lot more difficult. For these women, their journey requires extensive support from a much wider BreastCheck team. This team includes radiographers, radiologists, surgeons, pathologists, breast care nurses and administration staff. Regardless of their area of expertise, each member of this team is focussed on providing the utmost professional care for the woman, throughout her BreastCheck journey.

BreastCheck has a team of highly qualified experts in the fields of breast screening, cancer detection and treatment. As lead clinical director, I am immensely proud of the team I work with on a daily basis. Together, we can provide an unrivalled support system for a woman through initial screening, to in some cases a cancer diagnosis and primary treatment.

BreastCheck invites women with no symptoms of breast cancer for screening. Having a BreastCheck mammogram can become a life-changing experience for some, seemingly well, women. In a small number of cases (less than 1%), a breast cancer is detected. The type of breast cancers that BreastCheck, as a screening programme, is focussed on detecting are generally small, impalpable cancers that are difficult to detect.

BreastCheck clinicians are specially trained to deal with this kind of early breast cancer. This specialist expertise is only gained by working with a screening service such as BreastCheck.

2010 proved a difficult year for screening. Significant obstacles in the delivery of screening were encountered, with staff shortages having the biggest impact. The BreastCheck team pulled together across the four screening units to ensure that, as much as possible, women were not adversely affected. Clinical staff at each of the units shared the screening load, which in some cases meant extensive travel and disruption of personal lives for months on end.

While in my opinion the skill and expertise of the BreastCheck clinical staff is unequalled in the healthcare system, I firmly believe that it is the individual members of the team who make our screening programme so strong. I extend my most sincere gratitude to all BreastCheck staff for the incredible support that has been provided throughout 2010.

Dr Ann O'Doherty
Lead Clinical Director
BreastCheck – The National Breast Screening Programme

Programme updates

New suite of BreastCheck leaflets

The suite of BreastCheck information leaflets for women has been updated and revised. 'About breast screening', 'About your BreastCheck appointment', 'About your re-call for assessment', 'Registration form' and 'Make time for your breast health' feature updates to the text to reflect feedback received from women and the medical community, as well as new photography and imagery. In addition, a factsheet on the benefits and limits of breast screening has been developed. This factsheet is available to women on request who wish to be provided with more detailed information about the potential risks of breast screening.

BreastCheck language tool

To address and resolve issues identified by radiographers in screening women with limited English, and to ensure all women can make an informed choice about their BreastCheck mammogram, the BreastCheck Language and Consent Sub-group was established. Together with support from the HSE Social Inclusion Unit, the group has developed a language and pictorial tool to help accurately identify a woman and explain the breast screening process. The language tool is available at all screening units. The tool currently caters for women who speak French, German, Dutch, Latvian, Lithuanian, Polish, Russian, Chinese (Mandarin) and Arabic.

Annual radiography study day

The BreastCheck Annual Radiography Study Day took place in October and was attended by over 50 BreastCheck radiographers from all four BreastCheck screening units. The day provides a valuable opportunity for screening radiographers to meet, learn from each other and discuss topics particularly relevant to mammography and breast screening. There was a 'multidisciplinary' theme to this year's event and a wide variety of topics were covered, including mammography imaging and assessment views, breast pathology, screening promotion, clinical signs and symptoms of breast cancer and breast oncology.

Accessibility

Every member of staff plays a part in helping to ensure that women with disabilities can use our service easily and accordingly, the NCSS developed an access team. The access team includes representatives of relevant NCSS departments. The role of the team is to support the NCSS in its compliance with the Disability Act 2005.

All efforts are made to ensure that simple, sensitive and easy to understand language is used in BreastCheck materials. An illustrated 'Guide to breast screening' has been developed for women with an intellectual disability. The guide, approved by the National Adult Literacy Agency (NALA) and the National Council for the Blind, is available on request and can also be accessed through the BreastCheck website www.breastcheck.ie. Radiographers in all screening units hold a copy. In addition a copy can be mailed to residential homes on request.

All BreastCheck information leaflets are approved by NALA. Certain letters and information leaflets are available in Braille and further information items can be made available on request.

Information is available regarding the BreastCheck screening service on request, in an accessible form including a video tape and a DVD. A loop system for deaf people is available in all static BreastCheck units. With notice, a sign language interpreter can be made available on request.

The BreastCheck website www.breastcheck.ie has been audited for accessibility purposes and an extensive project to update it in compliance with best practice was undertaken. The website is screen-reader-compatible and provides a range of additional accessibility features for women, including the ability to increase text size, easy-to-understand screening information, up-to-date information on screening locations and the opportunity to check the BreastCheck register online to ensure their details are included.

The site adheres to the W3C WAI Web Content Accessibility Guidelines. This ensures that all women can easily access and navigate the information provided about the programme.

Encouraging participation in screening

The screening promotion team implements special initiatives to reduce barriers, promote informed choice and encourage eligible women aged 50 to 64, across all socio-economic groups, to participate in the BreastCheck programme. The work of the screening promotion team includes:

- Supporting women in accessing the service and addressing barriers to screening.
- Raising awareness of the BreastCheck programme via information stands in communities and at national events.
- Delivering peer education training to women in their own communities.
- Delivering training to health professionals such as public health nurses, occupational health nurses, pharmacists and others.
- Strengthening links with partners, advocates and charities including the Irish Cancer Society, Marie Keating Foundation, Europa Donna and myriad community networks and women's representative groups nationwide.

In certain areas, BreastCheck has identified some decreasing levels of participation among eligible women. The screening promotion team is currently leading an extensive research project into the attitudes, beliefs and barriers to screening that exist among women who do not attend for their BreastCheck appointment. Through the research, it is hoped that an understanding and insight into why certain women persistently miss appointments, can be gained. The outcome of the research will help tailor the approach and direction taken by the team in encouraging informed choice and participation in BreastCheck.

Screening statistics

The figures reported relate to those women contacted by BreastCheck between 1 January and 31 December 2010. Programme standards, against which performance is measured, are based on the 'European Guidelines for Quality Assurance in Mammography Screening' (4th edition) and the BreastCheck 'Guidelines for Quality Assurance in Mammography Screening' (3rd edition).

The sustained increase in screening numbers and related activity reflects the full roll-out of BreastCheck screening nationwide (Table 1, Figure 1). In 2010 167,088 women were invited for screening. Of these 163,277 were eligible for screening and 120,730 women attended for screening. Both acceptance rates presented (based on eligible target and known target populations of women) surpassed the target uptake of 70 per cent.

The standardised detection ratio (SDR) (1.15) is a useful composite score by which to measure the performance of a screening programme and shows good overall programme performance by BreastCheck in the reporting year (Table 1).

Table 1: Screening activity overall

Performance parameter	2010
Number of women invited	167,088
Number of eligible women invited*	163,277
Number of women who opted not to consent	1,538
Number of women attending for screening	120,730
Eligible women acceptance rate* (including women who opted not to consent)	73.9%
Known target population acceptance rate**	71.6%
Number of women re-called for assessment	5,504
Number of open benign biopsies	170
Number of cancers detected	814
Cancers detected per 1,000 women screened	6.74
Number of invasive cancers	664
Number of in situ cancers	150
Number of invasive cancers < 15mm	311
Standardised detection ratio	1.15

* Eligible refers to the known target population less those women excluded or suspended by the programme based on certain eligibility criteria.

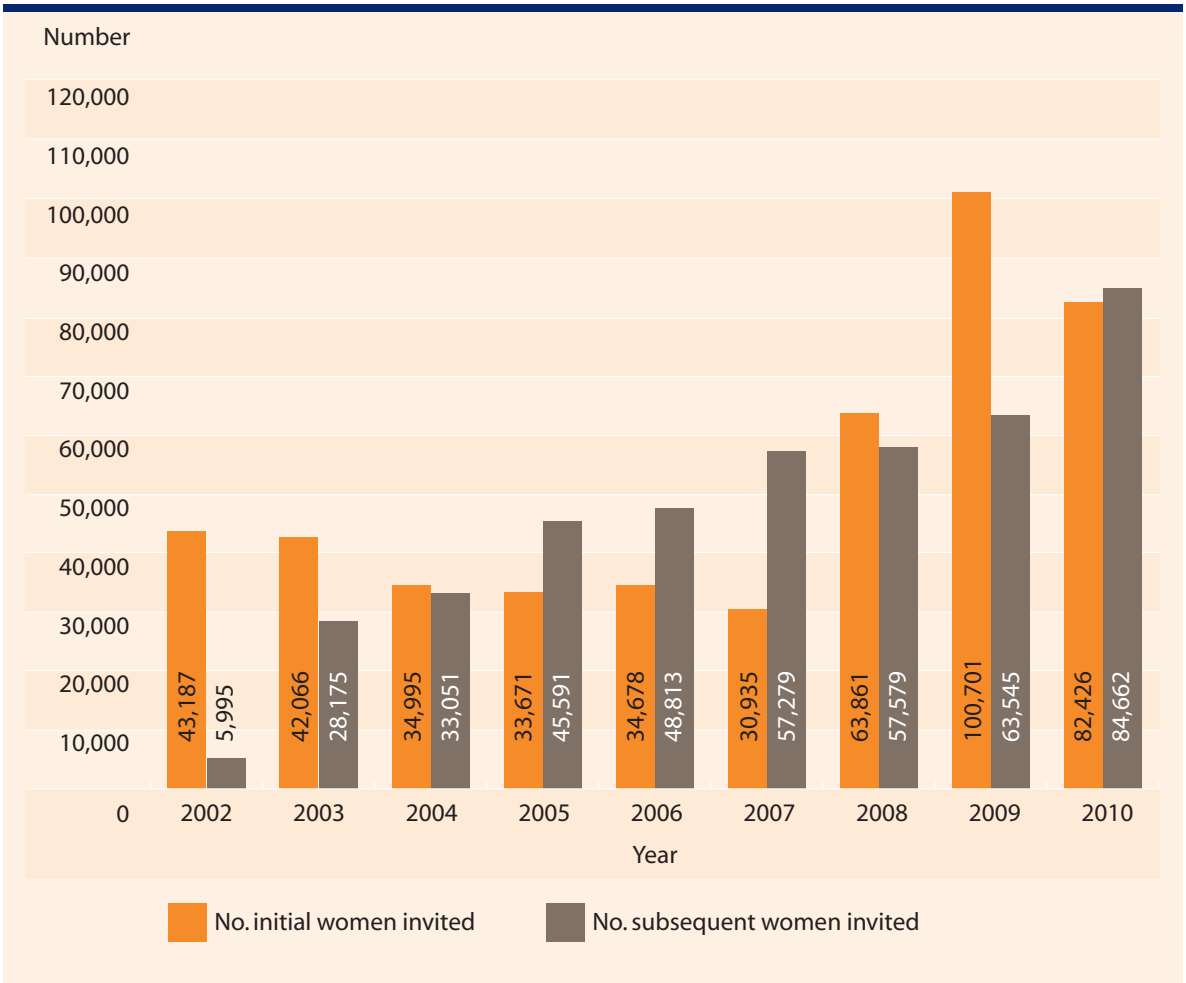
** Known target refers to all women of screening age that are known to the programme.

Details of the ineligible categories

Excluded – women in follow-up care for breast cancer, not contactable by An Post, women who have a physical/mental incapacity (while BreastCheck attempts to screen all eligible women, certain forms of physical or mental incapacity may preclude screening), terminal illness or other.

Suspended – women on extended vacation or working abroad, women who had a mammogram within the last year, women who opt to wait until the next round, women who wished to defer appointment, women unwilling to reschedule or other.

Figure 1: Numbers invited 2002-2010 – initial and subsequent women



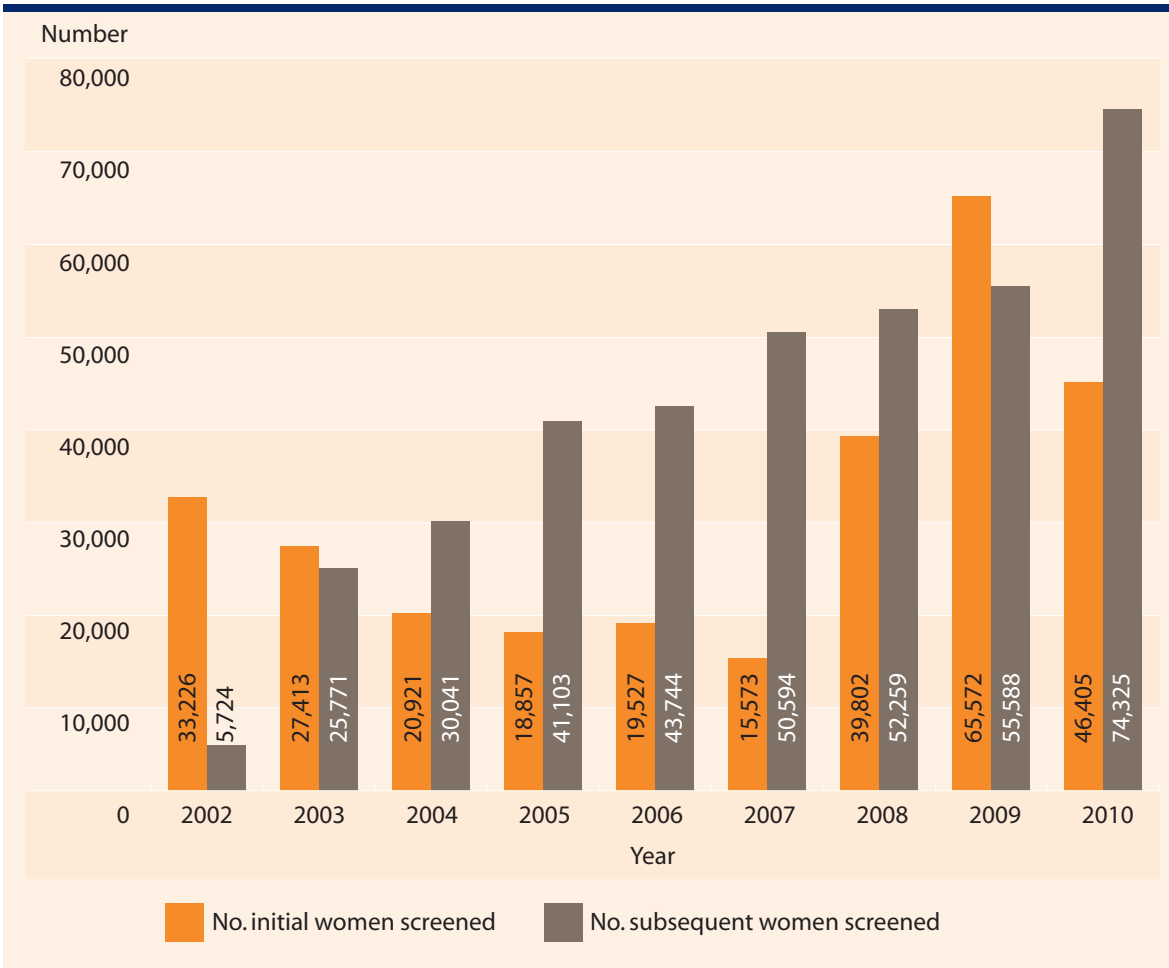
In 2010 the major increase in the numbers of women invited and screened were in those invited/screened for the second or subsequent time (Table 2, Figures 1 and 2). This reflects the completion of the first round of the national expansion of BreastCheck. Women nationwide are now being invited for a second or subsequent screening appointment. The eligible women and known target population acceptance rates have fallen in those invited for the first time (initial women). Among those who have previously not attended the acceptance rate is low and continues to fall, due to persistent non-attendance by some women, who neither attend nor opt out of the programme, and so continue to be invited. Among those women who have previously attended and are re-invited for subsequent screening, the acceptance rates continue to be high.

Table 2: Screening activity by type of screen

Performance parameter	First invited population	Previous non-attenders	Subsequent population
Number of women invited	64,623	17,803	84,662
Number of eligible women invited	60,670	17,803	84,804
Number of women who opted not to consent	202	0	1,336*
Number of women screened	43,991	2,414	74,325
Eligible women acceptance rate (including women who opted not to consent)	72.5%	13.6%	87.6%
Known target population acceptance rate	67.9%	13.6%	86.4%

* Subsequent women - opted not to consent in previous round of screening, but remain within target age group of 50-64 years.

Figure 2: Numbers screened 2002-2010 – initial and subsequent women



Screening activity by type of screen and age group

In 2010 there was a fall in uptake among women invited for the first time in all age groups compared to previous years. Uptake remains highest in younger women invited for the first time (Table 3(i)). The age gradient is marked among previous non-attenders, reflecting not only a difference due to age but also the effect of persistent non-attenders in the calculation of rates in the older age groups (Table 3(ii)). Again this year we do not see a marked age gradient among women invited for subsequent screening, with similar high acceptance rates in all age groups (Table 3(iii)).

Table 3(i): First invited population

Performance parameter	Age group 50-54	55-59	60-64
Number of women invited	35,805	15,012	12,878
Number of eligible women invited	33,943	13,883	12,001
Number of women who opted not to consent	60	49	73
Number of women screened	25,280	9,753	8,336
Eligible women acceptance rate (including women who opted not to consent)	74.5%	70.3%	69.5%
Known target population acceptance rate	70.5%	64.8%	64.4%

Table 3(ii): Previous non-attenders

Performance parameter	Age group 50-54	55-59	60-64
Number of previous non-attenders invited	5,004	7,079	5,666
Number of women screened	997	886	516
Known target population acceptance rate	19.9%	12.5%	9.1%

Table 3(iii): Subsequent invites

Performance parameter	Age group 50-54	55-59	60-64
Number of women invited	18,324	36,173	29,984
Number of ineligible women*	272	492	426
Number of eligible women invited	18,271	36,136	30,220
Number of women who opted not to consent**	219	455	662
Number of women screened	16,057	31,848	26,097
Eligible women acceptance rate (including women who opted not to consent)	87.9%	88.1%	86.4%
Known target population acceptance rate	85.6%	85.9%	83.4%

*Identified as ineligible in previous round of screening or in this round, but remain in the target population.

* *Opted not to consent in previous round, but remain in the target population.

Of those women invited in 2010 for either the first or a subsequent time, 814 were diagnosed with a cancer. Of these, 664 were invasive, representing a sustained high rate of cancers detected corresponding with the national expansion of the programme (Figure 3). Among women screened for the first time the re-call rate is above the standard. This rise is associated with the introduction of digital mammography. More than 43 per cent of invasive cancers detected in this group were small (less than 15mm), in excess of the target percentage (Table 4). Among women attending for subsequent screening, the re-call rate is much lower, as expected. Over half of invasive cancers detected in these women were less than 15mm (Table 5). The SDR is above the standard required for both first screening and subsequent screening.

Figure 3: Number of women diagnosed with breast cancer and invasive breast cancer 2002-2010

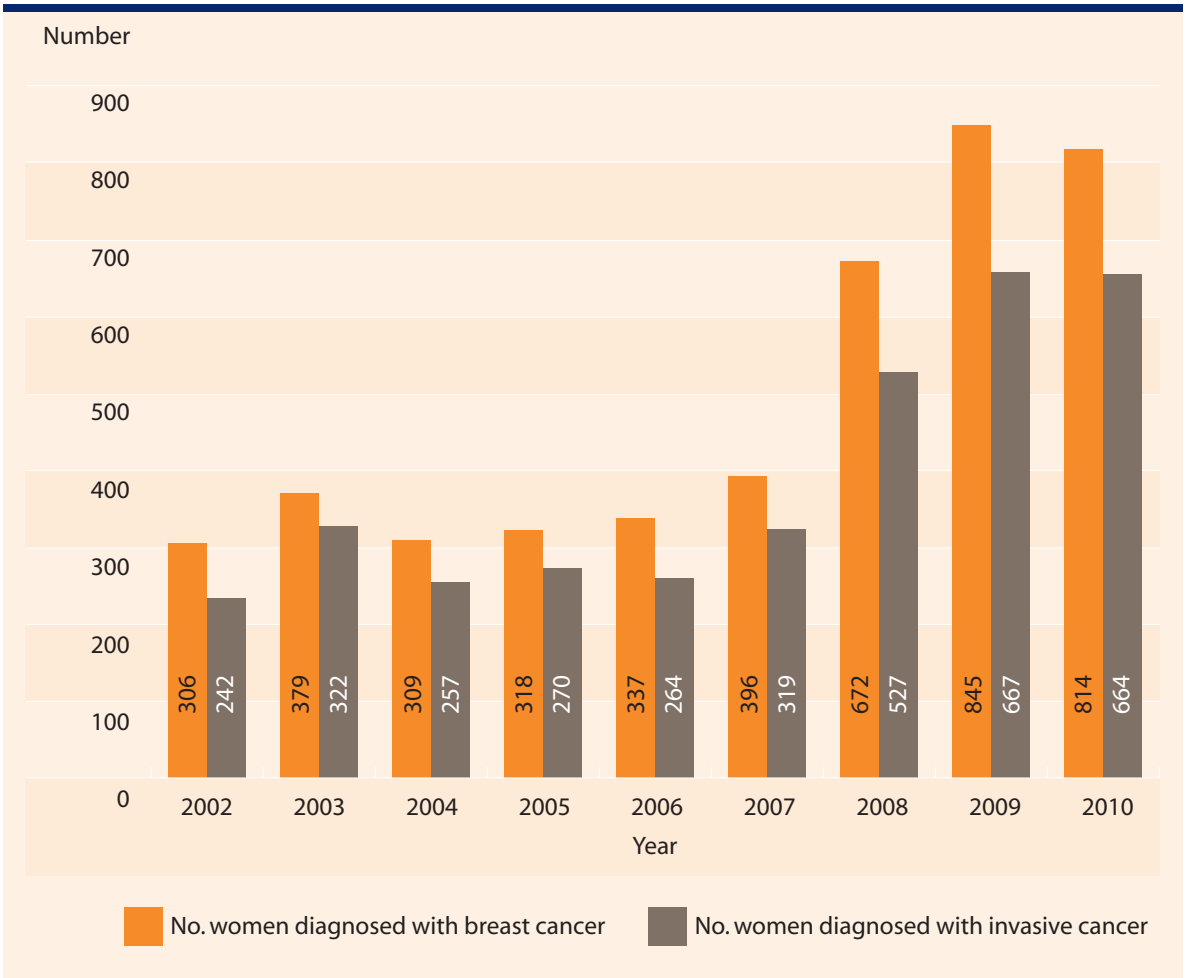


Table 4: Screening quality: First screen

Performance parameter	2010	Standard
Number of women screened for first time	46,405	
Number of women re-called for assessment	3,661	
Re-call rate	7.9	< 7%
Number of benign open biopsies	127	
Benign open biopsy rate per 1,000 women screened	2.74	< 3.6
Number of women diagnosed with cancer	416	
Cancer detection rate per 1,000 women screened	8.96	≥ 7
Number of women with in situ cancer (DCIS)	80	
Pure DCIS detection rate per 1,000 women screened	1.72	
Number of women diagnosed with DCIS as % of all women diagnosed with cancer	19.2%	10-20%
Number of women diagnosed with invasive cancer	336	
Invasive cancer detection rate per 1,000 women screened	7.24	
Invasive cancer detection rate per 1,000 women screened for women aged 50-51	5.32	> 2.9
Invasive cancer detection rate per 1,000 women screened for women aged 52-64	8.24	> 5.2
Number of women with invasive cancers <15mm	146	
Number of women with invasive cancers <15mm as % of all women with invasive cancers	43.5%	≥ 40%
Standardised detection ratio	1.14	0.75

Table 5: Screening quality: Subsequent screen

Performance parameter	2010	Standard
Number of women returning for subsequent screen	74,325	
Number of women re-called for assessment	1,843	
Re-call rate	2.5%	< 5%
Number of benign open biopsies	43	
Benign open biopsy rate per 1,000 women screened	0.58	< 2
Number of women diagnosed with cancer	398	
Cancer detection rate per 1,000 women screened	5.35	≥ 3.5
Number of women with in situ cancer (DCIS)	70	
Pure DCIS detection rate per 1,000 women screened	0.94	
Number of women diagnosed with DCIS as % of all women diagnosed with cancer	17.6%	10-20%
Number of women diagnosed with invasive cancer	328	
Invasive cancer detection rate per 1,000 women screened	4.41	
Number of women with invasive cancers <15mm	165	
Number of women with invasive cancers <15mm as % of all women with invasive cancers	50.3%	≥ 40%
Standardised detection ratio	1.16	0.75

The overall cancer detection rate rises with increasing age (Tables 6 & 7). Benign open biopsy rates are highest among women aged 50-54 screened for the first time (Table 6), but overall rates of benign open biopsy remain low in the programme.

Table 6: Screening outcome: First screen by age group

Performance parameter	Age group 50-54	55-59	60-64
Number of women screened	26,277	10,639	8,852
Percentage of women re-called for assessment	8.3%	7.2%	7.4%
Benign open biopsy rate per 1,000 women screened	3.23	1.88	2.15
Overall cancer detection rate per 1,000 women screened	7.95	9.21	11.52

Table 7: Screening outcome: Subsequent screen by age group

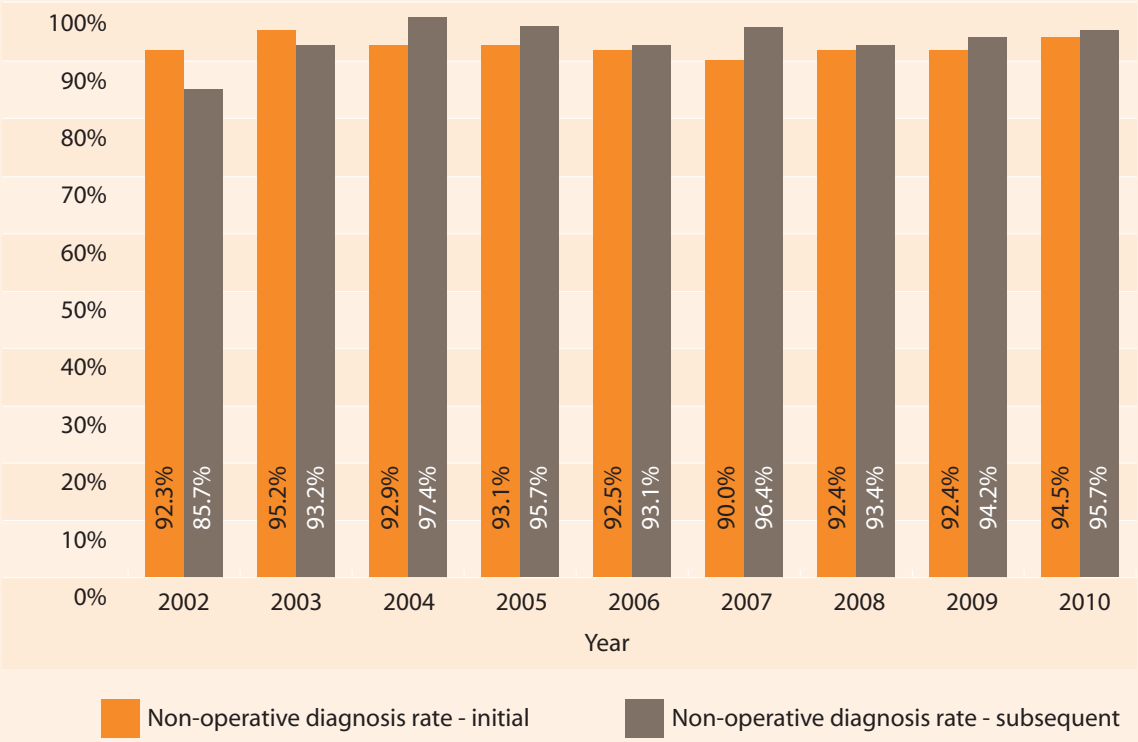
Performance parameter	Age group 50-54	55-59	60-64
Number of women screened	16,057	31,848	26,097
Percentage of women re-called for assessment	2.8%	2.3%	2.5%
Benign open biopsy rate per 1,000 women screened	0.87	0.47	0.54
Overall cancer detection rate per 1,000 women screened	5.04	4.90	6.05

More than 95 per cent of women with cancer are diagnosed prior to any surgery, usually by core biopsy taken by radiologists at the assessment clinic (Table 8, Figure 4). This high rate means that most women know their diagnosis prior to any surgical intervention and can plan their surgical treatment in advance. This has been a persistently positive feature of the programme since its inception.

Table 8: Cancers with non-operative diagnosis

Performance parameter	Initial screening	Subsequent screening	Standard
Percentage of women with non-operative diagnosis of cancer	94.5%	95.7%	≥ 70%

Figure 4: Cancers with non-operative diagnosis 2002-2010 – initial and subsequent women



The pattern of women screened across the four regions reflects the expansion of the screening programme to the west and south of the country, with the greatest number of women screened for the first time in those regions. The acceptance rate remains highest in those areas (Table 9). The acceptance rate presented includes re-invitation of those who have not attended when first invited. Numbers of these previous non-attenders are naturally higher in the regions where screening has been in place for several years. For women invited for a subsequent screening appointment, uptake remains high in all regions (Table 10).

Table 9: Outcome of first screens by Health Service Executive region

Region of residence	Number of women screened	Eligible population acceptance rate	Target population acceptance rate	Number of cancers detected	Number of cancers detected per 1,000 women screened
Dublin and north east region	5,932	41.4%	39.7%	60	10.11
Dublin and mid Leinster region	7,166	46.7%	44.1%	57	7.95
Southern region	17,001	68.0%	64.8%	154	9.06
Western region	16,306	68.7%	64.6%	145	8.89
Total	46,405	59.2%	56.2%	416	8.96

Table 10: Outcome of subsequent screens by Health Service Executive region

Region of residence	Number of women screened	Eligible population acceptance rate	Target population acceptance rate	Number of cancers detected	Number of cancers detected per 1,000 women screened
Dublin and north east region	22,364	86.0%	83.7%	117	5.23
Dublin and mid Leinster region	26,242	86.9%	84.5%	150	5.72
Southern region	16,185	89.3%	87.2%	87	5.38
Western region	9,534	89.8%	86.5%	44	4.62
Total	74,325	87.5%	85.1%	398	5.35

The programme seeks to achieve or exceed all standards outlined in the BreastCheck Women's Charter. Most women receive seven days notice of appointment and receive their mammogram results within three weeks. Just under the 90 per cent target of women re-called for assessment following a screening mammogram were offered an assessment appointment within two weeks of an abnormal mammogram. The percentage of women with cancer offered hospital admission within three weeks of diagnosis is well below the standard desired. However, this target was achieved within 35 days of diagnosis of breast cancer. In addition there is some round slippage; the programme fell below the target of 90 per cent for the proportion of women re-invited for screening within 27 months of invitation at previous round (Table 11). However, 91.3 per cent of women were re-invited within 28 months. In addition the proportion of eligible women invited for first screening within two years of becoming known to the programme fell below the target of 90 per cent to 49.5 per cent.

Table 11: Women's Charter parameters

Performance parameter	2010	Women's Charter standard
% women who received 7 days notice of appointment	93.6%	≥ 90%
% women who were sent results of mammogram within 3 weeks	99.6%	≥ 90%
% women offered an appointment for assessment clinic within 2 weeks of notification of abnormal mammographic result	87.9%	≥ 90%
% women given results from assessment clinic within 1 week	93.0%	≥ 90%
% women offered hospital admission for treatment within 3 weeks of diagnosis of breast cancer	73.8%	≥ 90%
% women re-invited for screening within 27 months of invitation at previous round	88.9%	≥ 90%
% women eligible for screening invited for first screening within 2 years of becoming known to the programme	49.5%	≥ 90%

Glossary

Assessment

Further investigation of a mammographic abnormality or symptom reported at screening. BreastCheck offers a triple assessment approach which is a combination of clinical examination, additional imagery (mammography or ultrasound) and cytology.

Benign

Not cancerous. Cannot invade neighbouring tissues or spread to other parts of the body.

Benign breast changes

Non cancerous changes in the breast.

Biopsy

The removal of a sample of tissue or cells for examination under a microscope. Biopsy is used to aid diagnosis.

Cancer

A general name for more than 100 diseases in which abnormal cells grow out of control. Cancer cells can invade and destroy healthy tissues and can spread to other parts of the body.

Carcinoma

Cancer that begins in tissues lining or covering the surfaces of organs, glands or other body structures.

Clinical breast examination

A physical exam by a doctor or nurse of the breast, underarm and collarbone area.

Cytology

Examination of cells or tissues under a microscope for evidence of cancer.

Ductal Carcinoma in Situ (DCIS)

Cancer that is confined to the ducts of the breast tissue.

Eligible women

The known target population less those women excluded or suspended by the programme based on certain eligibility criteria.

Excluded

Women in follow-up care for breast cancer, not contactable by An Post, women who have a physical /mental incapacity (while BreastCheck attempts to screen all eligible women, certain forms of physical or mental incapacity may preclude screening), terminal illness or other.

First invited population

Women who have been invited by BreastCheck for a screening appointment for the first time.

Initial screening

A woman's first visit to a BreastCheck unit.

Invasive cancer

Cancer that has spread to nearby tissue, lymph nodes under the arm or other parts of the body.

Known target population

All women of screening age that are known to the programme.

Malignancy

Cancerous. Malignant tumours can invade surrounding tissues and spread to other parts of the body.

Mammogram

An x-ray of the breast.

Oncology

The study of cancer. An oncologist is a specialist in cancer and cancer treatments.

Previous non-attenders

Women who did not attend their BreastCheck screening appointment when previously invited.

Radiologist

A doctor with special training in the use of diagnostic imaging.

Risk

A measure of the likelihood of some uncertain or random event with negative consequences for human life or health.

Screening mammogram

Breast x-ray used to look for signs of disease such as cancer in women who are symptom free. Used to detect a breast cancer at an earlier stage than would otherwise be the case.

Standardised detection ratio

An age-standardised measure in which the observed number of invasive breast cancers detected is compared with the number which would have been expected.

Subsequent screening

A woman's visit to a BreastCheck unit when she has attended a previous BreastCheck screening appointment.

Suspended

Women on extended vacation/working abroad, women who have had a mammogram less than a year previously, women who opt to wait for the next screening round, women who wished to defer their appointment, other.

Symptom

Any evidence of disease.

Tumour

An abnormal growth of tissue. Tumours may be either benign or malignant.

National Cancer Screening Service

nccp National Cancer Control Programme

The National Cancer Screening Service is part of the Health Service Executive National Cancer Control Programme. It encompasses BreastCheck – The National Breast Screening Programme and CervicalCheck – The National Cervical Screening Programme.

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