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## Highlights

- ★ *The National Breast Screening Programme began screening in February 2000*
- ★ *The programme exceeded its target uptake rate of 70%, achieving a rate of 73%*
- ★ *The number of eligible women invited for screening was 60,881*
- ★ *The number who attended screening was 45,321*
- ★ *The rate of recall for assessment was 4.4% which is within the target set of 10%*
- ★ *The overall cancer detection rate achieved by the programme of 9.1 per 1,000 women screened exceeds the target for the prevalent round (the first round of screening) of >7 per 1,000*
- ★ *The number of women diagnosed with breast cancer was 410*



## Chairperson's Statement

Welcome to the first Annual Report of BreastCheck, the National Breast Screening Programme. This report covers the first two years of implementation 2000 and 2001 - and will be followed by yearly reports in the future.

It has been a period of significant advancement for the programme with the commencement of screening in early 2000 and the attainment of Quality Assurance targets by the end of 2001.

A major achievement of the programme during its first two years of screening was to exceed the target uptake level of 70%. This has been matched with a proven quality of service delivered to the highest international standards. These milestones were identified as key to the success of the programme in the National Breast Screening Committee First Report in 1998; they have now been achieved and will also apply to the planning and implementation of the national expansion of the programme.

In keeping with the principles of the National Health Strategy, the programme is people centred. Our staff provide an integrated multi-disciplinary service in the context of a Women's Charter, with individual appointments, a personal care plan and clear timescales for giving results and offering further treatment.

I would like to thank Dr. Jane Buttimer who was Director when the programme was first established in 1998 up to mid 2001. Her commitment and expertise successfully brought the programme from its strategic layout to implementation stage.

May I also offer a warm thanks to our Director, Ms. Maureen Lynott for her leadership and expertise in guiding the programme through its early implementation stages and for putting in place effective foundations for the future expansion of the programme.

Key to the success of BreastCheck has been the dedicated staff of the organisation itself and their strong commitment to achieving the very important aims and goals of the programme.

I would like to acknowledge the Board of BreastCheck for its commitment to the successful development of the programme. We have been well served and supported by the Minister and Department of Health and Children to whom we owe our sincere thanks.

I am confident that the excellence of the BreastCheck programme will have a substantial impact over time in saving women's lives, as well as providing a very positive health service experience for the women who participate.

On behalf of the Board I would like to welcome Mr. Tony O'Brien who took over the role of Director of BreastCheck in September 2002. I wish him every success in the future development of the programme.

The years 2000 and 2001 have seen the commencement and development of a breast screening programme to be proud of. We can look forward to the future with confidence that a breast cancer screening programme, as good as any in the world, has been established and will continue to develop in Ireland.

Dr. Sheelah Ryan  
Chairperson  
October 2002



## Director's Report

The National Breast Screening Programme was established in 1998, following a pilot period from 1989 to 1994, with the remit of reducing mortality from breast cancer by 20% in ten years, by screening women 50 - 64 years of age every two years. The programme is by invitation, by District Electoral Division (DED) and county area, to all women in the age cohort and is free of charge.

Phase One of the programme began screening women in the Eastern Area of the country comprising the Eastern Regional Health Authority, North Eastern and Midland Health Board areas in February 2000. To the end of December 2001 the programme, based at the Eccles Unit at the Mater Misericordiae Hospital and Merrion Unit at St. Vincent's University Hospital, had invited 60,881 eligible women and screened 45,321 with an uptake rate of 73%. 410 women were diagnosed with cancers detected amongst the screened population.

The programme is exceeding all uptake clinical targets based on international standards. The only target not yet fully achieved is meeting the screening number targets in the initial phase due to the start-up problems with Radiographer recruitment. A major international recruitment drive was put in place and the full Radiographer complement is now in place.

The National Breast Screening Programme is managed and organised as a national programme with decentralised multi-disciplinary clinical units for screening, recall and assessment which are adjacent to a host hospital for the provision of primary treatment. The programme operates within a national framework with standards for clinical Quality Assurance (QA), Standard Operating Procedures, patient care, IT, administration and finance.

The organisation has developed a comprehensive multi-disciplinary Quality Assurance system. QA standards and protocols are in place with ongoing documentation, monitoring and review of QA activities. A QA Co-ordinator administers the system, which is chaired on a rotating basis by a Clinical Director. The IT system provides regular specified reports on all aspects of clinical data for QA purposes. Validation is also provided by EUREF, which is the recognised European quality control body for breast screening.

Unit administration, compliance with recall and assessment standards, and meeting the commitments in the BreastCheck Women's Charter on timeframes for service and treatment are subject to detailed Standard Operating Procedures.

### *Human resources*

Human resource management is provided centrally with support to local units. Total staff complement is 81 with 30 approved for each Clinical Unit and 21 at Central Office (figures are based on Whole Time Equivalents). This included 12 Consultants, 18 Radiographers (including two Superintendent Radiographers), nine nursing and technical staff, and 42 staff in areas of epidemiology and research, management, customer service, communications, finance, IT and administration.

### **Phase One - The Eastern Area**

The development of Phase One was predicated on having a centralised National Breast Screening Programme i.e. clinical units and mobile units for all of the interventional procedures required following positive mammographic results. These clinical centres are based in centres of excellence primarily to establish best practices in all aspects of radiology, radiography, breast cancer care, pathology, surgery and therapy - and to attract suitably qualified personnel to the programme.

The BreastCheck clinical units in the East are: the Merrion Unit covering the southern part of Dublin city and county - and counties Wicklow, Kildare, Offaly and Laois; the Eccles Unit covering northern Dublin city and county - and counties Cavan, Monaghan, Louth, Meath, Westmeath and Longford. A total of approximately 140,000 women are in the target population for each two year round, or approximately 70,000 per annum.

The two centres, Eccles near the Mater Misericordiae Hospital, and Merrion on the campus of St. Vincent's University Hospital, were chosen on the basis of established expertise in breast cancer at both hospitals.

Customer and staff surveys at the Eccles Unit reported that it represents the ideal infrastructure for a clinical unit. The unit facilitates counselling and interventional procedures in an atmosphere that is patient-orientated, efficient, considerate and liked by women who are invited to the programme.

The Merrion Unit is housed in a temporary building, which is effective, but will be replaced in 2003 by a custom-built facility on the same site that will offer the same spatial and environmental surroundings as the Eccles Unit.

Both of these units are adjacent to major hospitals which is essential in streamlining the effectiveness of a screening programme in that it allows agreements with the host hospitals to provide beds, theatre time, etc. to optimise and meet the commitments and standards in the Women's Charter.

### *Staffing Requirements*

All of the clinical appointments in radiology, pathology, surgery and anaesthesia are made jointly between BreastCheck and the host hospitals.

This ensures that the quality of the candidates is optimised. In addition the lead Radiologists, Surgeons and Pathologists are given Honorary Senior Lecturer appointments by University College Dublin.

### *Physico Technical Quality Assurance*

A principal physicist trained specifically in all Quality Assurance aspects of mammography (Guildford U.K. and University Hospital Nijmegen, Holland) was appointed to the programme. The centralised Quality Assurance programme links all of the mammographic units in the clinical units and in the mobile units so that the physico technical measurements can be recorded on a daily/weekly basis; therefore equipment not functioning to desirable standards can be identified quickly and repaired or shut down if necessary.

### Phase Two - The National Expansion of BreastCheck

The National Breast Screening Programme aims to carry out local screening nationwide via BreastCheck clinical units and multi-mobile provision in three large regional areas - the East, West and South of the country.

Assessment, recall and patient planning in the case of diagnosis of cancer are carried out at the Area clinical units by the BreastCheck multi-disciplinary team, utilising agreed protocols. Primary treatment through surgery in host hospitals also involves a BreastCheck multi-disciplinary team and QA protocols.

The Board of BreastCheck has completed its plan for national expansion and it has been submitted to the Department of Health and Children for consideration.

The BreastCheck clinical unit planned for national expansion in the Western Area will be at University College Hospital Galway, with two associated mobile units. The area of coverage is counties Galway, Sligo, Roscommon, Donegal, Mayo, Leitrim, Clare and Tipperary North Riding. The target population includes 58,371 women or 29,186 per annum.

The BreastCheck clinical unit in the Southern Area will be located at the South Infirmary/Victoria Hospital with three associated mobile units. The area of coverage is counties Cork, Kerry, Limerick, Waterford and Tipperary South Riding. The target population includes 74,255 women, or 37,128 per annum.

Counties Wexford, Kilkenny and Carlow will come under the coverage of the Eastern Area. This will result in an additional 18,606 women to be screened in the East, or 9,303 per annum.

The total national target population will be 291,232 women or 145,616 women per annum.



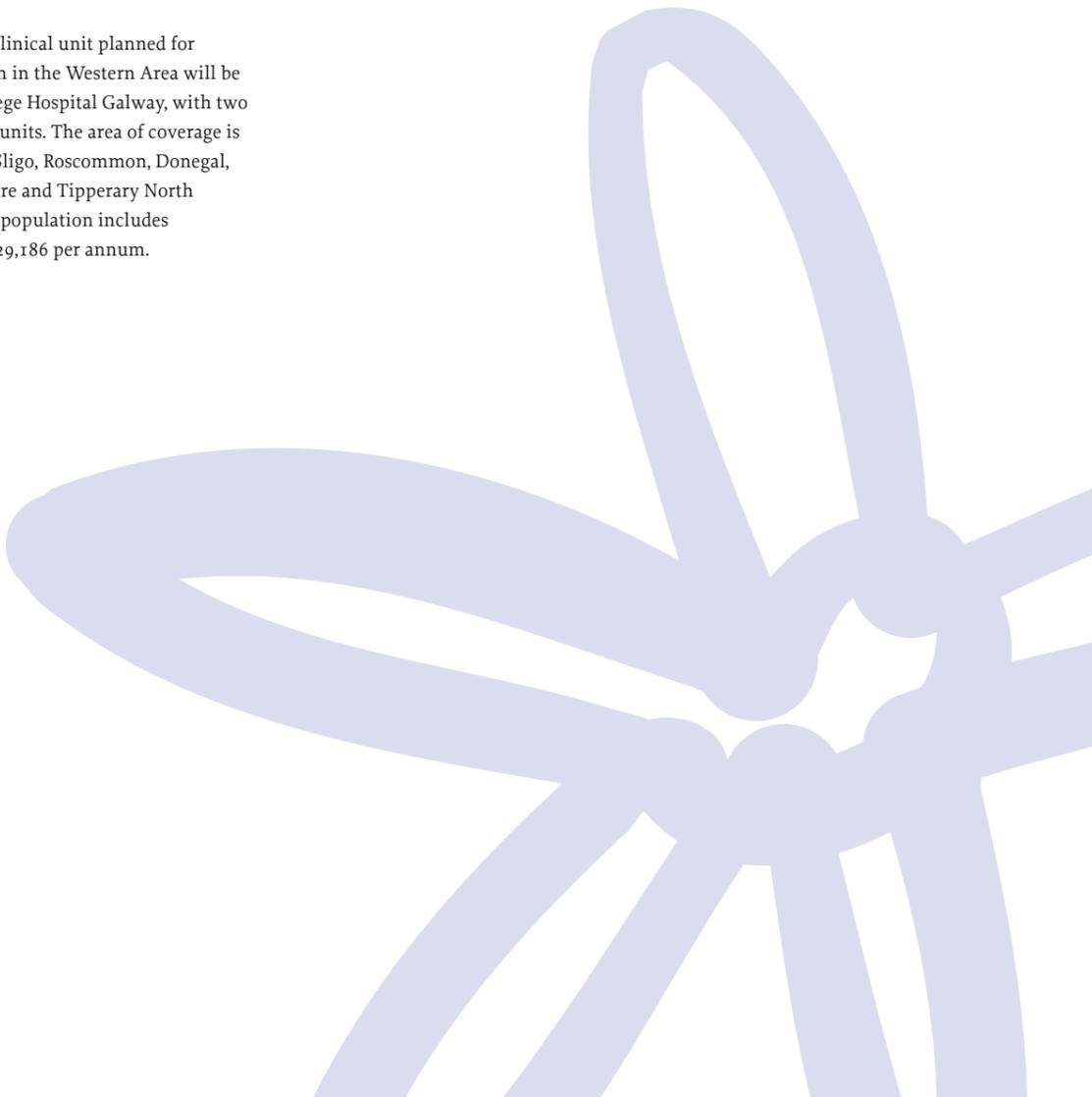
### Priorities During 2000-2001

Priorities in the 2000-2001 period have included achieving the target Quality Assurance levels and Women's Charter standards for Phase One of the programme; setting in place an effective management and organisation structure for programme delivery; support and development of staff; and achieving sufficient awareness of the programme among the target group.

I am pleased to report that in all these regards BreastCheck has been successful, with particular achievements in reaching an uptake rate of 73% for the first two years of the programme and delivering a service that has met top international standards. Importantly, this has laid the required foundations for the expansion of a high-quality service to all parts of the country in the years ahead.

May I pay tribute and offer my personal gratitude to the Board of the National Breast Screening Programme for their support and to the Clinical Directors, management team, clinicians and staff of BreastCheck for their striving for excellence in all aspects of BreastCheck's work which has ensured a first-class service to women.

Maureen Lynott  
Director



## Report of the Chief Medical Advisor/Chairman of the Quality Assurance Committee

The primary objective of the National Breast Screening Programme (BreastCheck) is to reduce mortality from breast cancer among Irish women. The mortality from breast cancer amongst Irish women is one of the highest in the EU and more Irish women die from breast cancer than many of their European counterparts.

Achieving mortality reduction depends on the implementation of Quality Assurance standards in all aspects of the screening programme. The totality of the breast cancer screening process includes validation of the population register, the invitation for and registration of the women for a screening appointment, the radiographic mammographic process, interpretation of the mammograms, the recall of women in the event of a significant abnormality, the triple assessment by Surgeon, Pathologist and Radiologist prior to biopsy and the eventual primary treatment (where a preoperative diagnosis has been made). These must be effectively, rigorously and continuously assessed to guarantee the Quality Assurance process.

The Steering Committee set up by the Department of Health and Children to oversee the introduction of breast cancer screening on a phased basis took important decisions to guarantee Quality Assurance.

A centralised programme with expertise in radiology, radiography, pathology and surgery concentrated in two centres guaranteed optimal diagnostic and treatment facilities. The decision to link these centres to University teaching hospitals was also instrumental in attracting high quality graduates. The application to and agreement from Comhairle na nOispideál that proleptic consultant appointments could be made to provide training where necessary facilitated this objective.

BreastCheck's links on an agreed commercial basis with two teaching hospitals (the Mater Misericordiae and St. Vincent's University Hospitals) to provide beds, theatre space and Theatre Nurses has worked well - and is the model for the national expansion of the programme.

The ability to launch a successful Irish National Breast Cancer Screening Programme was greatly facilitated by the Pilot Screening Programme (1989-1994) funded and scientifically supported by the Europe Against Cancer Action Plan. This established the Quality Assurance structures that would guarantee a successful screening outcome.

The appointment of a Medical Multi-disciplinary Committee and an Internal Quality Assurance Committee representing all of the specialty interests in the screening process - radiology, radiography, surgery, pathology, epidemiology, physics, patient care, nurse counselling and administration - were critically important.

Significant linkages were forged with external agencies with established breast cancer screening programmes. This was important to initiate best practice criteria for the National Breast Screening Programme. Membership of and/or attendance at the Consultant Radiologist Committee of the National Health Service Breast Cancer Screening Programme in the U.K., the European Breast Cancer Screening Network, EUREF (the European Reference Centre for Quality Assurance in Breast Cancer Screening at the University of Nijmegen) and the availability of advice from the Swedish National Breast Cancer Screening Programme were of inestimable value.



Advice from the Imperial Cancer Institute on epidemiological and statistical developments and the external validation of Standard Operating Procedures (SOPs) are important monitors of day to day evaluation of the quality assurance parameters and afford surrogate measurements of potential success in the early stages of the programme.

### EUREF Validation of the Quality Assurance Standards

In 2001 the European Reference Centre for Quality Assurance in Breast Cancer Screening (EUREF) agreed that a team of experts in radiography, radiology, pathology, surgery, physics and epidemiology would validate BreastCheck's Guidelines for Quality Assurance in Mammographic Screening.

Recommendations from this evaluation and the input from the European Manual on Quality Assurance (2001) provide assurance that the quality parameters reached by the Irish National Breast Cancer Screening Programme (BreastCheck) are to internationally approved standards. This manual was compiled with input from all of the medical subspecialty interests, Radiographic Manager, Physicist, Epidemiologist, Administration/Client Care and Nurse Counsellors. The difficulties in recruiting sufficient Radiographers to the programme have now been overcome, with full complements of Radiographers in both the Eccles and Merrion Units. This guarantees that the targets set for each subsequent round of screening will be achieved.

The National Breast Screening Board, set up to oversee the National Breast Cancer Screening Programme, has played a most effective role in the success of the screening programme to date. Discussions on the roll out of the National Breast Screening Programme to the remainder

of the country are now well established with an emphasis on centralised diagnosis and treatment to ensure that the outstanding results achieved in the first phase of the programme are continued.

The Department of Health and Children and Minister Micheál Martin are to be congratulated for establishing a funding strategy that guarantees state of the art equipment, optimal facilities and the recruitment of personnel of the highest quality. This strategy will enable BreastCheck to achieve a significant reduction in mortality from breast cancer in Irish women.

Professor Joseph T. Ennis  
MD, FRCPI, FFR (RCSI), FRCR.  
Chief Medical Advisor  
Chairman, Quality Assurance Committee



## Eccles Unit Report

Screening, under the National Breast Screening Programme, began at the Eccles Unit in February 2000 and by September 2000 the unit was working at maximum capacity.

The unit grew out of the existing structures of the Eccles Pilot Programme, which preceded the development of the national programme by ten years. The new Eccles Unit bears responsibility for the North Eastern and Midland Health Board areas and all of North Dublin.

The unit is sited within the old Mater Hospital Nursing Home, a building that lay derelict for ten years before it was extensively renovated for the programme. This Georgian style building has bright spacious rooms creating a comfortable friendly environment for women.

Women from North Dublin areas are screened at the clinical unit and women in locations outside of Dublin are screened by two mobile units linked to the Eccles Unit. The mobile unit set down in Longford in August 2000 and a second mobile unit was due to begin in Louth/Monaghan in early summer 2002.

The Eccles Unit staff are well trained and motivated and are committed to the provision of a quality screening service through a multi-disciplinary team approach. The unit successfully exceeded target uptake rates of 70% during 2000 and 2001. The unit handled 400 mammograms a week and operated two triple assessment clinics for the approximately 25 women recalled for further investigation each week.

Regular multi-disciplinary review meetings take place within the unit to discuss cases both preoperatively and postoperatively. This is beneficial for feedback purposes as well as providing an ideal mechanism for refining case management decisions.

At the end of December 2001 the unit employed 27 staff, including Radiographers, Breast Care Nurse Specialists, Administrative staff, Scientists and Data Managers. It also had the services of six Consultants directly employed by BreastCheck (one Surgeon, three Radiologists, one Pathologist and one Anaesthetist) all of whom are linked to the Mater Misericordiae Hospital. The unit is strategically linked to the Mater Misericordiae Hospital and benefits from a very close working relationship with the staff. Most of the additional care of those found to have breast cancer is delivered or co-ordinated from the Mater Hospital.

The unit would like to particularly acknowledge the assistance of the Departments of Pathology, Oncology, Radiology, Surgery, Nursing, Pharmacy, Anaesthesia and Administrative staff who have made the programme possible. The unit would also like to acknowledge the services of St. Luke's Hospital and radiotherapy services at the Mater Private Hospital.

The unit is also dependant upon the strong links it has established with General Practitioners and Public Health Nurses throughout the region, whose support is gratefully acknowledged. Their role in promoting the programme has contributed enormously to the high uptake in the first round of screening.

Dr. Fidelma Flanagan  
Clinical Director



## Merrion Unit Report

Screening at the Merrion Unit started in 2000 after the appointment of a multi-disciplinary medical staff together with a motivated, well-trained administrative team. The establishment of the service was facilitated with support from staff at BreastCheck Central Office and the Eccles Street Unit - and from staff in many departments at St. Vincent's University Hospital.

During 2000 and 2001 the breast screening service was housed in Carew House which is located in front of the St. Vincent's University Hospital campus. There are plans to develop a purpose-built clinical unit on the site immediately adjacent to Carew House. The proposed timescale is for building work to commence in 2002 and be completed by September 2003.

The establishment of the programme coincided with a serious national radiographic shortage which caused delays in the early stages. Considerable recruitment efforts were put in place and full staffing was achieved in 2002.

To December 2001, 22 staff were employed at the unit including Radiographers, Breast Care Nurse Specialists, Administrative staff, Scientists and Data Managers. This also included the services of six Consultants (one Surgeon, three Radiologists, one Pathologist and one Anaesthetist) all of whom are linked to St. Vincent's University Hospital.

The unit provided screening to women in the greater South Dublin area. A mobile unit delivered breast screening services to women in Kildare and a second mobile was due to commence delivering screening in 2002.

The staff at the Merrion Unit are extremely pleased with the development of the service during its first two years. The response rates from eligible women exceeded the target

uptake level of 70% during 2000 and 2001 and a substantial amount of time and effort was invested in the establishment of stringent and effective Standard Operating Procedures for all aspects of the service.

These administrative procedures, coupled with high clinical Quality Assurance, resulted in a high level of patient satisfaction which was reflected in the large number of written and verbal acknowledgments received at the unit.

A survey of over 600 women revealed that 100% of the women at the clinical unit and 99% at the mobile unit found the facilities either excellent or good. The average waiting time from arrival to completion of the mammogram at the clinical unit was 23 minutes and 25 minutes at the mobile. Over 95% of women rated the radiographic staff as very helpful at both units and the reception staff were rated as very helpful by 95% at the clinical unit and 93% at the mobile unit.

We aim not only to provide a very high standard of clinical care, but also for women to find the service satisfactory. A high level of satisfaction will encourage women to reattend for their free screening mammogram at each two yearly interval.

I would like to acknowledge the assistance of the Departments of Pathology, Oncology, Radiology, Surgery, Anaesthesia and Administrative staff at St. Vincent's University Hospital and also General Practitioners and Public Health Nurses for promoting the programme.

Dr. Ann O'Doherty  
Clinical Director

## Women's Charter

### Screening commitment

- ★ *All staff will respect the woman's 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 the woman's care in accordance with the patient's 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 recall is required we aim

- ★ *To ensure that women 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 already have an appointment*

Tell us what you think  
Your views are important

## Programme Statistics

- ★ *The figures reported relate to those women contacted and/or screened by BreastCheck, the National Breast Screening Programme, from its commencement in February 2000 to the end of 2001.*
- ★ *Rigorous audit and Quality Assurance is an integral part of the screening process to ensure that women invited for screening receive the best quality service possible.*
- ★ *Throughout these statistics, the performance of BreastCheck is compared with predetermined standards based on European Guidelines for Quality Assurance in Mammography Screening (3rd Edition).*
- ★ *Overall, the statistics portray a picture of a breast screening programme that is performing to a very high standard in its initial 22 month period. For most performance parameters, the relevant standards are achieved or surpassed.*
- ★ *The Board and staff of BreastCheck would like to thank the National Cancer Registry for the provision of national breast cancer statistics necessary for completion of this report.*

### Screening Activity

Under a statutory amendment to the Data Protection Act, all women must give their consent for their data to be used. Consent letters are sent to identified women normally 10-12 weeks prior to an anticipated appointment. Any woman who receives a consent letter and does not wish to take part in the programme can notify BreastCheck in writing within 28 days. She is then termed as deconsented. If at any time a woman who has deconsented wants to be re-included in the programme she can do so by contacting BreastCheck.

The population register is formed using data from the following sources: Voluntary Health Insurance (VHI), General Medical Services (GMS) and Department of Social and Family Affairs. The Health (Provision of Information) Act, 1997 facilitated the compilation of these data. In addition women aged 50-64 years whose details

are not held by any of the above can self-register with the programme. A freefone information line facilitates self-registration (1800 45 45 55). Data from BUPA Ireland is also being added to the population register.

The letter of invitation is issued to those women who do not initially deconsent. A change of appointment is possible. Women who fail to attend their screening appointment are issued with one further invitation.

Women may also be excluded or suspended from the programme following invitation, i.e. be ineligible, for a number of reasons, including previous bilateral mastectomy, a mammogram within 12 months, terminal illness, death and migration.

Performance Parameter	2000-2001
Number of women sent consent forms	64,766
Number of women who deconsented following receipt of consent form	1,193
Number of women invited	63,573
Number of eligible women invited	60,881
Number of women attending for screening	45,321
Overall acceptance rate	73%

The acceptance rate is based on the numbers attending as a percentage of both the women who initially deconsented to involvement in the programme plus the number of eligible women invited for screening in the period. The acceptance rate for the programme was in excess of the acceptable international standard of 70%.

### Screening Quality

Following mammographic screening, a woman is either informed that her mammogram is normal and that she will be recalled in two years (provided she remains within the specified age range of 50-64 years at that time) or is recalled for further assessment if an abnormality is detected. Best international practice requires that the assessment of screen-detected abnormalities is carried out by a skilled multi-disciplinary team consisting of Radiologists, Surgeons and Pathologists. Currently, further assessment is offered at either the Merrion or Eccles Unit. The rate of recall for assessment at 4.4% is within the target set of 10%.

The overall cancer detection rate achieved by the programme (9.1 per 1,000 women screened) exceeds the target for the prevalent round (the first round of screening) of >7 per 1,000 women screened. Cancers diagnosed are classified as invasive or ductal carcinoma in situ (DCIS). DCIS is a breast abnormality in which cancer cells are found contained within the walls of ducts in the breast tissue, but have not started to invade the rest of the breast or tissues beyond. The rate of detection of invasive breast cancer exceeds the target set, while the rate of detection of DCIS is within the target parameters.

The number of women with invasive cancers less than 15mm as a percentage of all women with invasive cancer exceeds the standard of 40%. The smaller the size of the tumour at diagnosis, the better the likely outcome will be. A small number of benign open biopsies were performed.

The Standardised Detection Ratio (SDR) is an age-standardised measure in which the observed number of invasive breast cancers detected is compared with the number which would have been expected if the age-specific detection rates achieved by the Swedish Two-County Randomised Controlled Trial applied<sup>1</sup>. The SDR adjusts the observed cancer detection rates according to the age structure of the screened population. An SDR of 1.0 would indicate parity with the Two-County Study, where a large reduction in mortality was achieved.

The SDR calculated for the programme to date is corrected for the estimated percentage of women screened who have had mammography in the five years pre-screening (based on sampling). This corrected SDR is estimated to lie between 0.95 and 1.01. The crude, uncorrected SDR (0.89) would be an underestimate of the programme performance. The SDR achieved by the programme to date is above the acceptable standard of >0.75 and is close to or exceeds the target of >1.0; this indicates an excellent performance in this initial phase of screening.

<sup>1</sup> Blanks RG et al. Monitoring the performance of breast screening programmes: use of indirect standardisation in evaluating the invasive cancer detection rate. *Journal of Medical Screening* 1996;3:79-81.

Performance Parameter	2000-2001	Standard
Number of women screened	45,321	
Number of women recalled for assessment	1,987	
% of women recalled for assessment	4.4%	≤ 10%
Number of benign open biopsies	106	
Benign open biopsy rate per 1,000 women screened	2.3	< 3.5
Number of women diagnosed with cancer	410	
Cancer detection rate per 1,000 women screened	9.1	> 7
Number of women with in situ cancer (DCIS)	82	
Pure DCIS detection rate per 1,000 women screened	1.8	
Number of women diagnosed with DCIS as % of all women diagnosed with cancer	20%	10-20%
Number of women diagnosed with invasive cancer	328	
Invasive cancer detection rate per 1,000 women screened	7.3	> 5.6
Number of women with invasive cancers < 15mm	154	
Number of women with invasive cancers < 15mm as % of all women with invasive cancers	47%	≥ 40%
Standardised detection ratio: corrected (crude)	0.95-1.01 (0.89)	> 0.75

### Screening Activity by Age Group

The acceptance rate was above the target of 70% in the age group 50-64; the rate was highest in the 50-54 year age group. The initial deconsent rate was highest in the older age groups. A small number of women under 50 were invited, largely those whose fiftieth birthday was in the year they were invited. A further small number of women were 65 by the time of invitation for screening. Data by age group is presented for the target age group of 50-64 only.

	50-54	55-59	60-64
Number of deconsented women	189	349	435
Number of eligible women invited	15,486	22,525	17,797
Numbers screened	11,959	16,939	12,960
Acceptance rate	76.3%	74.1%	71.1%

### Screening Acceptance by Invitation

In all age groups the majority of those attending for screening responded to the first invitation to attend for mammography.

	50-54	55-59	60-64
Acceptance following one invitation only (%) (numbers)	67.6 (10,464)	65.0 (14,643)	63.0 (11,207)
Acceptance following second invitation (%) (numbers)*	36.6 (1,495)	34.4 (2,296)	31.2 (1,753)
Total (numbers)	11,959	16,939	12,960

\* Some women declined to receive a second invitation at this time

### Screening Outcome by Age Group

The percentage recalled for assessment in all age groups was well within the standard of 10%. The benign open biopsy rate was similarly low in all age groups. As expected, the cancer detection rate rose with increasing age.

	50-54	55-59	60-64
Number of women screened	11,959	16,939	12,960
% of women recalled for assessment	4.9%	4.2%	4.0%
Benign open biopsy rate per 1,000 women screened	2.9	2.8	1.4
Overall cancer detection rate per 1,000 women screened	7.3	8.2	9.9

### Cancers with Non-operative Diagnosis

92% of women with breast cancer had their diagnosis made without an operation. This means that the woman can have a definite diagnosis made and consider the treatment options available to her before she undergoes any surgery or other therapy. This percentage exceeded the international standard.

Performance Parameter	2000-2001	Standard
% of women with non-operative diagnosis of cancer	92%	70%

### Lymph Node Status

Almost all women with invasive cancer had a surgical procedure to document their nodal status. Knowledge of nodal status is important for treatment planning.

Performance Parameter	2000-2001	Standard
Number of women with invasive cancer	328	
% of women with invasive cancer where nodal status known	98.5%	100%

### Prevalent Screen by Region

Phase One of the National Breast Screening Programme involves the invitation of women resident in the Eastern Regional Health Authority, North Eastern and Midland Health Board areas. A number of women may have moved their area of residence to a location outside the target area of the programme in the time between receipt of initial consent and screening. These women remained part of the programme activity for the period reported (denoted as outside Phase One area).

The cancer detection rate was above the standard of >7/1,000 women screened among women resident in all three Health Board areas. The acceptance rate differed between Phase One areas but was above the standard of >70% among women resident in all.

Region of Residence	Number of women screened	Acceptance rate	Number of women with cancer detected	Cancers detected per 1,000 women screened
Eastern Regional Health Authority	33,042	72.3%	307	9.3
Midland Health Board	4,802	71.6%	42	8.8
North-Eastern Health Board	7,365	77.9%	61	8.3
Outside Phase One area	112	67.1%	0	0
Total	45,321	73%	410	9.1

### Women's Charter Parameters

A National Breast Screening Programme Women's Charter was established at the initiation of the programme so that women are informed about what to expect from the screening process. It is recognised that screening and assessment can cause anxiety to those women participating so every effort is made to minimise the time between invitation or recall and appointments.

Performance Parameter	2000-2001	Women's Charter Standard
% of women who received seven days notice of appointment	96.7%	≥90%
% of women who were sent results of mammogram within three weeks	95.3%	≥90%
% of women offered an appointment for Assessment Clinic within two weeks of notification of abnormal mammographic result	90.5%	≥90%
% of women given results from Assessment Clinic within one week	89.1%	≥90%
% of women offered hospital admission for treatment within three weeks of diagnosis of breast cancer.*	84.8%	≥90%

\* An additional small number of women had clinical investigations first or had primary treatment other than surgery

The National Breast Screening Programme achieved the standards set in many aspects of the Women's Charter. Although the percentage of women receiving results within one week of assessment clinic was slightly below the standard, the percentage receiving results within eight days was considerably higher at 93.8%.

Every effort is made to offer women admission to hospital, through agreements with the host hospitals, within three weeks of diagnosis and this was achieved in 84.8% of cases; 99.5% of women were offered hospital admission within six weeks of diagnosis.

## Accounts for 2000

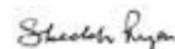
Note: the accounts for 2001 were being audited at the time of publication and will be included with the 2002 Annual Report.

### Revenue Income and Expenditure Account

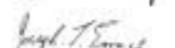
Year Ended 31 December 2000			
2000		2000	1999
EURO		IR£	IR£
<b>Income</b>			
6,790,559	Department of Health & Children Allocation	5,348,000	2,948,000
115,762	Superannuation Deductions	91,170	25,181
15,953	Miscellaneous Income	12,564	3,786
(2,123,086)	Transfer to Capitalisation Account	(1,672,066)	(1,077,625)
<u>4,799,188</u>		<u>3,779,668</u>	<u>1,899,342</u>
<b>Expenditure</b>			
2,123,921	Staff Costs	1,672,724	615,060
112,175	Travel & Subsistence	88,345	42,146
290,241	Recruitment and Training	228,583	128,278
1,826,091	Administration Expenses	1,438,163	501,086
<u>4,352,428</u>		<u>3,427,815</u>	<u>1,286,600</u>
<u>4,352,428</u>	Surplus for the Year	<u>351,853</u>	<u>612,742</u>
<b>Statement of Movement in Accumulated Surplus</b>			
905,956	Opening Balance 1 January	713,498	100,756
446,760	Surplus for the Year	351,853	612,742
<u>1,352,716</u>	Accumulated Surplus at 31 December	<u>1,065,351</u>	<u>713,498</u>

With the exception of fixed asset depreciation, which is dealt with through the Capitalisation Account, all recognised gains and losses for the year have been included in arriving at the excess of income over expenditure.

On Behalf of the Board



Chairperson



Member of the Board

4th Sept 2002

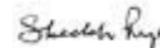
Date

### Capital Income and Expenditure Account

#### Year Ended 31 December 2000

2000		2000	1999
EURO		IR£	IR£
<b>Income</b>			
1,202,019	Department of Health & Children Capital Grants	946,667	760,041
359,888	Surplus carried forward	283,435	-
-	Proceeds of Sale of Fixed Assets	-	283,435
<u>1,561,907</u>		<u>1,230,102</u>	<u>1,043,476</u>
<b>Expenditure</b>			
Facilities Development			
157,211	- Temporary Facility Merrion	123,814	-
78,141	- Permanent Facility Merrion	61,541	185,355
745,336	Information Technology	-	587,000
221,331	Mobile Unit 11 Purchase	-	174,312
<u>1,202,019</u>		<u>946,667</u>	<u>760,041</u>
<u>359,888</u>	Surplus/(Deficit) on Capital Income & Expenditure	<u>283,435</u>	<u>283,435</u>

On Behalf of the Board



Chairperson



Member of the Board

4th Sept 2002

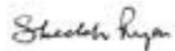
Date

## Balance Sheet

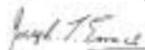
As at 31 December 2000

2000 EURO		2000 IR£	1999 IR£
4,990,592	Fixed Assets	3,930,411	2,360,743
	<b>Current Assets</b>		
2,682,815	- Debtors and Prepayments	2,112,889	1,339,563
509,958	- Cash in Hand	401,624	340,816
3,192,773		2,514,513	1,680,379
	<b>Current Liabilities</b>		
1,480,169	- Creditors and Accruals	1,165,727	683,446
1,480,169		1,165,727	683,446
1,712,604	Net Current Assets	1,348,786	996,933
6,703,196	Total Assets Less Current Liabilities	5,279,197	3,357,676
	<b>Financed By</b>		
1,352,716	Surplus on Revenue Income & Expenditure Account	1,065,351	713,468
4,990,592	Capitalisation Account	3,930,411	2,360,743
359,888	Surplus on Capital Income and Expenditure Account	283,435	2,644,178
6,703,196		5,279,197	3,357,676

On Behalf of the Board



Chairperson



Member of the Board

4th Sept 2002

Date

## Cash Flow Statement for the Year Ended 31 December 2000

2000 EURO	2000 IR£	1999 IR£
2,184,344		
6,605	5,202	3,786
9,348	7,362	-
15,953	12,564	3,786
-	-	283,435
(3,325,105)	(2,618,733)	(1,837,666)
(3,325,105)	(2,618,733)	(1,554,231)
(604,309)	(475,932)	-
(604,309)	(475,932)	-
(1,729,117)	(1,361,791)	(420,225)
1,202,019	946,667	760,041
1,202,019	946,667	760,041
(527,098)	(415,124)	339,816
(527,098)	(415,124)	339,816

## Notes to the Cash Flow Statement

## 1. Reconciliation of Operating (Deficit)/Surplus to Net Cash Inflow from Operating Activities.

2000 EURO	2000 IR£	1999 IR£
446,760	351,853	612,742
2,123,086	1,672,066	1,077,625
(6,605)	(5,202)	(3,786)
(9,348)	(7,362)	-
(981,920)	(773,326)	(1,164,680)
612,371	482,281	608,316
2,184,344	1,720,310	1,130,220

## 2. Change in Cash and Cash Equivalent

2000 EURO	2000 IR£	1999 IR£	Changes in year
432,747	340,816	1,000	
(527,098)	(415,124)	339,816	
(94,351)	(74,308)	340,816	
9,432	7,428	340,816	(333,388)
(103,783)	(81,736)	-	(81,736)
(94,351)	(74,308)	340,816	(415,124)

## Notes to the Financial Statements - 31 December 2000 continued

Expenditure			
Revenue			
2000		2000	1999
EURO		IR£	IR£
2,123,921	Staff Costs	1,672,724	615,090
112,175	Travel & Subsistence	88,345	42,146
290,241	Recruitment and Training	228,583	128,278
<u>2,526,337</u>		<u>1,989,652</u>	<u>785,514</u>
	<b>Administration</b>		
38,005	Accountancy Fee	29,931	16,930
410,298	Advertising and Promotion	323,136	156,562
5,079	Audit Fee	4,000	3,000
956	Bank Charges and Interest	753	-
4,548	Bedding and Clothing	3,582	-
-	Board Expenses	-	10,855
9,862	Catering	7,767	-
33,516	Cleaning/Washing and Waste	26,396	-
4,370	Computer Expenses	3,442	-
234,902	Drugs and Medicines	185,000	-
156,328	Insurance	123,118	46,497
115,361	Laboratory	90,854	-
19,234	Legal Fees	15,148	22,760
10,844	Light and Heat	8,540	-
43,132	Medical & Surgical Supplies	33,969	-
52,686	Office Supplies	41,494	63,130
173,093	Postage, Printing & Stationery	136,322	19,839
232,154	Professional Fees	182,836	60,096
33,318	Rent/Rates/Service Charges	26,240	37,129
46,612	Repair and Maintenance	36,710	26,504
34,217	Sundry Office Expenses*	26,948	26,399
68,133	Telephone	53,659	11,355
25,873	Transport and Courier	20,377	-
73,570	X-Ray/Imaging	57,941	-
<u>1,826,091</u>		<u>1,438,163</u>	<u>501,086</u>

\* This expenditure includes IR£20,883 charged by the North Eastern Health Board in respect of the period to May 1999 which was not accounted for in previous years.