TITLE:

Comparison of Early Performance Indicators for Screening Projects Within the European Breast Cancer Network: 1989–2000

AUTHORS:

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KEYWORDS:

breast cancer, mammography, screening, performance indicators

BACKGROUND:

In 1989, the European Breast Cancer Network (EBCN) was established by the first pilot projects for breast cancer screening, co-funded by the Europe Again Cancer program. The majority of its 17 screening projects have: progressed through their implementation phases, introduced continuing quality improvement procedures, and entered the phase of program evaluation.

OBJECTIVE:

To analyse and compare early performance indicators for the EBCN projects while taking into account some of their organisational differences.

METHODS:

Out of 17 projects in the network, 10 projects from six European countries contributed aggregated data on the number of invitations, screening examinations, and breast cancers detected during the period 1989–2000. Results were summarised separately for projects in centralised versus decentralised health care environments. The European Guidelines for Quality Assurance in Mammography Screening provided reference values for the performance indicators.

RESULTS:

The most prominent finding in this study was the higher participation rate in centralised versus decentralised projects (average participation in 1998: 74% vs. 33%; p<0.001), even though the invitation system and screening policy in these projects were similar. Detection rates and characteristics of cancers detected at initial and subsequent screening examinations showed no significant differences between centralised and decentralised projects. The difference in participation rate, combined with the similarity of other performance indicators, for centralised versus decentralised projects warrants further exploration. In the long term, additional studies will have to show whether the lower participation rate in decentralised projects affects the trend in breast cancer mortality differently from that in centralised projects.

TITLE: **Present or Current Use of Hormone Treatment and the Risk of Screening Detected Versus Interval Cancer**

AUTHORS: **Solveig Hofvind, Steinar Thoresen, Giske Ursin**

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KEYWORDS: postmenopausal hormone therapy, breast cancer, screening

BACKGROUND: Several studies have reported an increased risk of breast cancer associated with use of postmenopausal hormone therapy. However, it is not clear whether hormone therapy increases screen-detected or interval breast cancer.

OBJECTIVE: To analyze if recent or current use of hormone therapy was associated with risk of screen-detected as well as interval-detected breast cancer.

METHODS: All women attending the Norwegian Breast Cancer Screening Program were asked to complete a questionnaire on known risk factors for breast cancer, therein recent or current use of hormone therapy. The questionnaire did not differ between estrogen therapy alone or as combined estrogen and progestin therapy. A total of 181953 women completed the questionnaire; among these, 2462 women were diagnosed with screen-detected cancer, and 729 women were diagnosed with interval cancer.

RESULTS: Recent or current use of hormone therapy increased the odds ratio for an interval breast cancer significantly. The risk increased by increasing duration of use. Recent or current use was not associated with risk of screen-detected breast cancer.

TITLE: **Breast Cancer Incidence and Therapy Related to Breast Cancer Screening**

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OBJECTIVE: To assess changes in stage-specific breast cancer incidence and therapy during the implementation 1989–1997 of the nation-wide mammography breast cancer screening programme for women aged 50–69 in the Netherlands.

METHODS: Annually, tabulated regional cancer registry data on breast cancer incidence and therapy were collected after linkage of records of screened women to the cancer registry. Main outcome parameters are stage-specific incidence rates that were based on annual mid-population figures and age-adjusted using the European Standard Population as reference.

RESULTS: The overall breast cancer incidence rate rose strongly (29%) up to 1994, followed by a slight decrease or constant rates up to 1997 as a result of the shift to predominantly subsequent screens. The increase was mainly due to the increase in small T1 cancers and ductal carcinoma in-situ. In women aged 50-69, advanced cancer incidence rates showed a significant decline by 12.1% in 1997 compared with 1989 (EAPC 02.14, 95%C.I. 03.47; 00.80). The proportion of mastectomies in primary surgical treatment declined from 69% in 1990 to 53% in 1997. Adjuvant therapy was administered in approximately one third of all invasive breast cancer treatments. More than 80% of lymph node positive cancers and less than 10% of lymph node negative cancers had an adjuvant treatment.

CONCLUSIONS: Population-based breast cancer screening has a large impact on breast cancer incidence and therefore also on treatment. The main effect is a temporary strong increase of early breast cancer stages followed by a significant decrease of advanced diseases.

TITLE: **Mammography Screening Targeted Women Aged 40—49 in Japan**

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KEYWORDS: accuracy, clinical breast examination, mammography, screening

BACKGROUND: The national guidelines for breast cancer screening were modified in 2000 to endorse the use of mammography in women aged 50 and over, 2 years of interval combined with clinical breast examination (CBE). We have generated the mammography screening guideline in the aspects of quality control of radiographers, interpreting physicians, and system organization that would fit to the conventional screening system undertaken in Japan for decades.

OBJECTIVE: To compare the accuracy of mammography and CBE, separately or in combination, for women aged 40—49 and 50–69. We have performed a population-based screening program for breast cancer using either CBE alone, or mammography combined with CBE, in women aged 40—69 in Miyagi Prefecture, Japan.

METHODS: We investigated an appropriate method of breast cancer screening in the two age groups. We performed a population-based screening program for breast cancer using either CBE alone or mammography combined with CBE in women aged 40–69 in Miyagi Prefecture from 1995 to 1999.

RESULTS: Among 15,271 women aged 40–49 screened by mammography combined with CBE, the recall and sensitivity rates were 10.4% and 94%, respectively. In 17,755 women aged 50–69, the respective recall and sensitivity rates were 7.2% and 97%. The recall rate of women aged 40–49 was higher than that of women aged 50–69, but the sensitivities were almost equal. The sensitivities of the CBE were almost equal in the two age groups (40–49: 61%; 50–69: 56%), but the sensitivity of mammography in women aged 40–49 was lower than that in women aged 50—69 (40—49: 76%; 50—69: 92%).

These data suggest that screening mammography combined with CBE may be an appropriate method for women aged 40—49 from the viewpoint of sensitivity, although mammography alone may be sufficient for women aged 50 and over.

TITLE:

Standardised Detection Ratios for Prevalence Screening in the New Zealand Breast Cancer Screening Programme

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KEYWORDS:

standardized detection ratio

BACKGROUND:

The New Zealand Breast Cancer Screening Programme was established in December 1998. All asymptomatic women aged 50—64 in New Zealand are eligible for screening, and are offered two-yearly two-view mammographic screening in the programme.

OBJECTIVE:

To calculate two performance indicators for the New Zealand breast cancer screening programme: breast cancer detection to expected incidence ratios and standardised detection ratios (SDRs).

METHODS:

Cancer registrations for New Zealand for the years 1976 to 1999 were obtained from the New Zealand Cancer Registry. The invasive cancer incidence based on these registrations was used to project breast cancer incidence in the absence of screening for the years 1999 and 2000. Screening in the previous pilot breast cancer screening regions was taken into account when making the projections. These projections, together with data on invasive breast cancers detected by screening in the New Zealand programme during 1999 and 2000, were used to calculate the detection to expected incidence ratios and SDRs.

RESULTS:

For prevalence screening in 1999, the programme achieved a breast cancer detection rate of 5.6 per 1,000 women screened. The incidence of breast cancer expected among these women in the absence of screening in 1999 was 2.3 per 1,000 giving a detection to expected incidence ratio of 2.4. The SDR was 0.84 (95% interval 0.76 to 0.94).

For prevalence screening in 2000, the programme achieved a breast cancer detection rate of 6.0 per 1,000 women screened. The incidence of breast cancer expected among these women in the absence of screening in 2000 was 2.4 per 1,000 giving a detection to expected incidence ratio of 2.5. The SDR was 0.90 (95% interval 0.81 to 0.99).

TITLE: **Case-Control Evaluation of Outcomes Report**

AUTHOR: **E. Paci**

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KEYWORDS: screening evaluation, case-control study

BACKGROUND: A workshop on case-control approach in the evaluation of service screening was held in Stockholm in 2003. Design issues of case-control study in service screening were reviewed, and the occasion was fruitful to plan common initiatives. A working group that included Lennarth Nystrom, Mireille Broeders, and, from the United States, Stephen Taplin and Rachel-Ballard Barbash, did some preliminary work to summarize in a document the main conclusions. Programs for the evaluation of service screening are in progress in several countries, with different methodologies. Case control is considered as a possible approach, and design protocols have been suggested.

OBJECTIVE: The aim of this international cooperation is to discuss and share initiatives and protocols for the evaluation of service screening, with special reference to the use of a case-control approach. The objective is to facilitate the relationship among countries where an evaluation of service screening started in order to assess commonalities in study design. The possible outcome of this effort might be the pooling of data from different regions.

METHODS: *Design* issues
In a case-control study, controls are a sample of the study population experience. Sampling of the study base allows for the comparison of the subjects in terms of screening as determinant of the benefit and adjustment for possible confounders or effect modifiers. The availability of a cancer registry and a service-screening history registry is a prerequisite for the conduction of this kind of study. To evaluate mortality reduction related to breast cancer screening, breast cancer cases follow-up needs to be mature, maybe at least 7-8 years since the programme's start.

Target population
The population target of the screening programme is residents in the screening area. All programmes cover the age group 50-64 years, but many also are extended to cover the age group 65-69.

Events
The event of interest is death from breast cancer. Breast cancer deaths are included only when occurring within breast cancer cases diagnosed in the study period. Deaths are grouped by diagnostic modality of the corresponding breast cancer case (screen- or clinical-detected) and age at diagnosis.

TITLE:	**Case-Control Studies of the Efficacy of Cancer Screening**
AUTHOR:	**Noel Weiss**
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BACKGROUND: Case-control studies of the efficacy of cancer screening, just as case-control studies of etiology, have to deal with potential confounding. However, there are two categories of confounding variables that pose special problems for studies of screening:

1. Age and calendar time, due to there typically being a different temporal distribution of screening between cases and controls irrespective of the ability of the screening test to lead to a reduction in mortality; and
2. The receipt of other screening tests for the cancer in question, when it is not clear whether the result of the other test had a bearing on the decision to order the one whose efficacy is being studied.

OBJECTIVE: I will describe circumstances in which confounding from these sources can be dealt with satisfactorily by means of restriction and/or adjustment, as well as other circumstances in which it cannot.

TITLE: **Evaluation of Service Screening in Italy: Methodological Implications and Design of a Case-Control Study**

AUTHORS: **E. Paci, A. Ponti, P. Falini, V. DeLisi, S. Ferretti, F. Falcini, M. Federico, M. Vettorazzi, C. Naldoni; for the Screening Impact Working Group**

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KEYWORDS: screening evaluation, case-control study

BACKGROUND: In several areas in Italy, service screening started in the early 1990s. In previous cooperative work areas, cancer registries were established to collect data on cancer incidence, stage distribution, and modality of diagnosis. Several years after the start of the service screening, a new cooperative work between cancer registries and service screening centres was set up to assess the impact of screening on tumour characteristics, survival rates, and mortality.

OBJECTIVE: The aim of this study is to evaluate the impact of service screening on breast cancer mortality using different design options. The case-control approach has been considered and is planned in the next 2 years.

METHODS: All breast cancer deaths that occurred in the areas covered by the cancer registry before the start of the screening programme are considered in the study. Characteristics of all breast cancer cases and survival rates will be studied.

Each breast cancer case (and subsequent breast cancer death) is classified by diagnostic modality (screen detected at first or repeated, clinically detected in screened, never responded, not yet invited). Analysis will be carried out by invitation (not yet invited versus invited) and screened versus unscreened.

A sample of the study population will be selected and matched by year of diagnosis, date of birth, and date of death. Using computerized archives, screening exposure will be studied by first invitation to be screened and screening test history.

RESULTS: Each cancer registry is now completing the collection of the breast cancer cases and their living status as of 1213112001 (cases aged 40-79). The number of breast cancers expected is about 3000 per year. The study period will collect cases at 2001 with follow-up of all cases at 1213112001. In Florence, the programme started in 1990; in Turin in 1992; and around 1995-1997 in other areas. The design for sampling the population and to evaluate screening history will be presented.

TITLE: **Efficacy of Breast Cancer Screening According to Age and Risk Level**

AUTHORS: **Joann G. Elmore, Lisa M. Reisch, Mary B. Barton, William E. Barlow, Sharon Rolnick, Emily L. Harris, Lisa J. Herrinton, Ann M. Geiger, R. Kevin Beverly, Gene Hart, Onchee Yu, Sarah M. Greene, Noel S. Weiss, Suzanne W. Fletcher**

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KEYWORDS: mammography, efficacy, case-control design

BACKGROUND: While national groups recommend that breast cancer screening begin at age 40, especially in women at increased risk, little data exist to support this recommendation. We conducted a case-control study to examine the efficacy of breast cancer screening by mammography and/or clinical breast examination among women in two age cohorts (40–49; 50—65) and two breast cancer risk levels (average and increased risk).

OBJECTIVE: To examine the efficacy of breast cancer screening by mammography and/or clinical breast examination in two age cohorts and two breast cancer risk levels.

METHODS: The study was conducted among six health plans in five states (WA, OR, CA, MA, MN). Women who died from breast cancer during 1983—98 (N=1,351 cases) were matched to eligible women (N=2,501 controls) on health plan, age, and risk level. Increased risk was defined as a family history of breast cancer or a breast biopsy noted prior to the index date (defined as the date of first suspicion of breast abnormalities in cases with the same date used for matched controls). Data on screening, risk status, demographics, and other variables were abstracted from medical records. Matched case-control analyses used conditional logistic regression.

RESULTS: Only a weak association between breast cancer mortality and screening during the 3 years prior to the index date was noted, whether in women in their 40s (OR=0.92; 95% CI 0.76–1.13) or women in their 50s (OR=0.87; 95% CI 0.68–1.12). While there was a suggestion that women at increased risk may benefit from screening (OR=0.74; 95% CI 0.50—1.03), as opposed to women at average risk (OR=0.96; 95% CI 0.80—1.14), the difference between increased and average risk women was plausibly the result of chance variation.

CONCLUSIONS: Our results suggest that breast cancer screening at ages 40 and older, in these health plans during the 1980s and 1990s, had little impact on breast cancer mortality. Because of limitations of retrospective observational studies, results of this carefully designed and analyzed study should be interpreted with caution.

TITLE: **Therapeutic Behavior in Hereditary Non-Polyposis Colorectal Cancer (HNPCC) (Poster)**

AUTHORS: **Carlos Sarroca, Adriana Della Valle; Grupo Colaborativo Uruguayo: Investigacion de Afecciones Oncologicas Hereditarias**

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BACKGROUND: Cancer comprises a broad range of affections, of which 30% corresponds to a hereditary predisposition. In our country, colorectal cancer is placed third as the cause of death among males and second among females. The Uruguayan Collaborative Group (UCG) investigates specifically HNPCC.

OBJECTIVE: Our objective is to determine the most beneficial therapeutic behavior in HNPCC.

METHODS: The UCG has registered a cohort of 242 families and has identified 26 HNPCC. The analysis of the behavior of four of these families where three new genetic mutations have been found has allowed us to determine the therapeutic guidelines we suggest.

CONCLUSIONS: The therapeutic behavior is focused on surgery, with a global survival percentage of 81%, compared to 50% of the general population. After an initial abdominal colectomy, no recurrences were found, and there was a survival rate of 5/5 cases (100%). No adjuvant therapy was prescribed, based on the peritumoral and ganglia biologic response. The primary indication for surgery and ileorectal anastomosis is based on the possibility of synchronic and metachronic lesions. The accelerated carcinogenesis justifies yearly controls, unlike the general population.

TITLE:	**BreastScreen Australia – Improving Quality (Poster)**
AUTHORS:	**Andriana Koukari, Michele Mack, Jo Kichenside**
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KEYWORDS:	breast cancer screening, quality, standards, performance measures, monitoring

BACKGROUND: BreastScreen Australia, Australia's national breast cancer screening program, was established in 1991. One of the key national policies of the program is that BreastScreen Australia screening and assessment services should be delivered in accredited units. After a review of accreditation requirements, the new BreastScreen Australia National Accreditation Standards (NAS) were implemented on 1 July 2002. The NAS are one component of a broader system to support quality assurance and quality improvement in BreastScreen Australia services. This system includes the establishment of a consistent approach to monitoring and measurement of performance measures.

OBJECTIVE: To improve the quality of BreastScreen Australia screening and assessment services, and to ensure a consistent approach to measurement and monitoring of performance indicators.

METHODS: Cross-jurisdictional working groups and consultative arrangement were used to establish the new NAS. A number of projects were commissioned to build the accreditation system and to support improved accreditation decision making. National agreement is being sought for the completed framework.

RESULTS: BreastScreen Australia has established a comprehensive and transparent system to improve the quality of its screening and assessment services.

TITLE:	**Breast Cancer Screening in Iceland (Poster)**
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BACKGROUND: The Icelandic nationwide, population-based breast cancer service screening with mammography, covering the ages 40–69 years and combined with the cervical cancer screening, was started in November 1987. The first (prevalent) round was completed in December 1989, the first of its kind worldwide. Since then, invitation by letter has been on a 2-year basis, but the lower limit for self-referred women is 18 months.

OBJECTIVE: At the meeting, some primary results from the screening, up to the end of the 7th round in December 2001, will be presented.

METHODS: The screening is organized and run by the Icelandic Cancer Society, according to a contract with the Ministry of Health and Welfare, the women themselves paying only about 33 USD for both screenings.

The main part of the screening and workup takes place in a mammographic department in Reykjavik, which serves the capital and surroundings. A mobile mammographic team from the department also serves about 34% of the population in 40 health centres and small hospitals around the country, with centralized film processing, interpretation, and workup (special views, physical examination, sonography, and needle biopsy—all at the same visit) in Reykjavik.

The radiological department of the Regional Hospital in Akureyri, northern Iceland, finally serves about 7% of the target population (which has increased from about 34,000 in 1988 to about 47,000 in 2003).

RESULTS: To sum up, the so-called 2-year compliance of women has been poor (except in most smaller towns and the countryside), but, in general, other primary results have been comparable to those of screening programs in other countries.

TITLE:	**Influencing Radiologists and Screening Programmes to Change Behaviour — Experience from the UK**
AUTHORS:	**R. Blanks, S. Moss**
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KEYWORDS:	breast screening, evaluation, feedback

BACKGROUND:

The UK NHS Breast Screening Programme has been actively monitored since its inception in1988. Performance has been improved by changes in the national protocol, particularly with respect to the use of 2-view mammography and film density. Overall programme performance could be further improved by targeting individual screening centres that lie at the lower end of the distribution of performance. A method of assessing the quality of screening at individual centres, particularly those screening lower numbers of women, would be a valuable addition to the existing quality assurance process.

Evaluation of performance in the UK has tended to focus on sensitivity, and the likely effects on breast cancer mortality, by examining age standardized invasive cancer detection rates using the SDR. Screening "quality" involves consideration of specificity in addition to sensitivity, for which we need to examine the positive predictive value of referral for assessment.

OBJECTIVE:

To develop a practical and easily interpreted method of providing feedback on individual screening centre performance (relative to all 95 UK screening centers) to radiologists, with a view to improving screening quality.

METHODS:

Standard annual returns from individual UK screening centres provide the data for the diagrams. The PPV-referral diagram plots positive predictive value of referral for assessment against rate of referral for assessment, with cancer detection rate expressed as "isobars." Confidence limits can be represented by "boxes" around the point estimates on the diagram. Data for a single year for all individual screening centres within the UK national programme can be represented on a single graph, so that relative performance can be examined. The UK is particularly amenable to such methodology because of the standard approach of a 3-year screening interval over the age range 50-64.

RESULTS:

The PPV-referral diagram allows graphical representation of a centre's performance and, in conjunction with information on views and readers, also enables suggestions to be made to improve performance. First used in 2000, the diagrams are distributed annually to regional radiological directors and have been well received. Changes in the position on the graph of individual centres over time suggests improving screening quality and the PPV-referral diagram is likely to have been a factor in some programme improvements.

TITLE: **Development of an Evaluation Tool to Measure Mammography Screening Performances of Radiologists**

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KEYWORDS: Switzerland, performance measures, mammograms, validation, inter-observer variability, evaluation tool, radiologists

BACKGROUND: Although the quality of screening is satisfactory, performances of radiologists within the Vaud breast screening programme vary with no available, accurate basis for comparison. Also, accreditation criteria for new radiologists lack an objective evaluation of potential screening performances.

OBJECTIVE: To develop and validate an evaluation tool to compare mammography screening performances among radiologists.

METHODS: A test set of 200 mammograms was drawn from the Vaud breast cancer screening programme according to strict, epidemiological criteria. The set comprised 40 histologically proven, screen-detected cancers (TP), 80 screen-negative mammograms (TN), and 80 abnormal mammograms for which a diagnosis of cancer was discarded after further investigation (FP). The status of non-cancer cases (TN+FP) was confirmed by a subsequent negative screening test performed within the programme setting. Radiologists recorded their detailed readings (type/location of lesions, conclusion) with a specifically developed software that displayed digitized copies of the mammograms. The study was blinded to radiologists and radiographers. Radiologists outside the programme were used to test the evaluation tool.

RESULTS: Half of the radiologists accredited to the programme completed the survey, covering a wide range of experience, training, and proficiency. The test file was successfully validated by assessing how it discriminated readers and how radiologists' performances in practice and test situation correlated. The difficulty of interpretation of each mammogram was scored, based largely on the amount of inter-variability across radiologists. We propose to use this set as an internal and external evaluation tool for screening radiologists.

TITLE: **The Effect of Computer-Assisted Detection Upon Interpretive Performance in a Test Setting**

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BACKGROUND: Computer-assisted detection is gaining wider use, but needs testing in representative samples of cases from community practice.

METHODS: In a test setting, 19 community radiologists read 340 bilateral mammographic examinations with and without computer-assisted detection (114 women without cancer, 116 with cancer-by-one-year, and 110 with cancer-between-13&24 months). Six months separated the readings and the set was split so the order of assistance was reversed for each half of the radiologists. The cases were randomly selected from a screened population to create a difficult set in which half the cases were in high density breast tissue. Sensitivity and specificity were compared with and without assistance and the marking of visible lesions was evaluated.

RESULTS: Sensitivity for cancer-by-one year within fatty and dense breasts was 72.6% and 48.7% respectively without assistance and 72.2% and 47.1% with assistance. Sensitivity for cancer-between-13&24 months within fatty and dense breasts was 31.9% and 35.25% respectively without assistance and 29.8% and 34.3% with assistance. Specificity was 97.4 without assistance and 97.2% with assistance. Among the cancers-by-one year, 83% were visible. Of those, 77% were marked by the computer assistance technology. Among the cancer-between-13&24 months, 55% were visible. Of those, 67% were marked.   Within the group of cancers-by-one year, those within fatty breast tissue were more likely to be marked than those within dense tissue (84% vs.67%; p=0.055).

CONCLUSIONS: Computer-assisted detection had no effect on the sensitivity or specificity of mammography in part because potentially detectable lesions went unmarked by the technology.

TITLE:	**The Proportions of Missed and True Interval Cancers by Review Designs in a Population-Based Breast Cancer Screening Program**
AUTHORS:	**Solveig Hofvind, Per Skaane, Bedrich Vitak, Hege Wang, Steinar Thoresen, Liv Eriksen, Hilde Bjorndal, Audun Braaten, Nils Bjurstam**
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KEYWORDS:	interval cancer, review, review designs, missed cancers

BACKGROUND: The rate of interval cancers can be regarded as an indicator of the quality of a breast cancer screening program. However, different definitions of an interval cancer, the radiologists' experience, whether it is the prevalent or incident screen, and the length of the interval between the screening rounds make comparison of the interval cancer rates between programs difficult.

A review of the interval cancer case's mammograms from the screening examination preceding the interval cancer provides the opportunity to improve skills and increase the sensitivity of the program.

OBJECTIVE: To assess the influence of review designs on the proportion of missed and true interval cancers in a retrospective multi-reader analysis.

METHODS: Mixed blind individual, mixed blind pairs, informed individual, and informed consensus were used as designs for reviewing interval cancers in a population-based mammography screening program with two views for women 50–69 years. Six radiologists reviewed mammograms from 231 interval cancer cases that were diagnosed after the prevalent screening in the pilot of the Norwegian Breast Cancer Screening Program. A five-point interpretation scale was used, in which a score of two or higher was interpreted as warranting recalls, and thus regarded as missed.

RESULTS: An average of 20.6% of the interval cancers were interpreted as missed in the individual mixed blind review. The proportion was significantly higher in the informed individual (35.3%) and in the informed consensus review (33.6%). Utilization of the interpretation scale and the number of radiologists required to have performed a correct selection were of significant importance for the results.

TITLE: **Exploring Downunder – Australia's Bowel Cancer Screening Pilot**

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KEYWORDS: colorectal cancer, bowel cancer, screening, pilot, program implementation

BACKGROUND: Australia has one of the highest incidences of bowel cancer in the world. In recognition of this, the Australian Government provided funding for a Bowel Cancer Screening Pilot. Screening commenced in three Pilot sites in November 2002.

OBJECTIVE: To assess the acceptability, feasibility, and cost-effectiveness of a national program for screening of bowel cancer in Australia. The Pilot is not a clinical trial.

METHODS: An implementation committee and supporting task groups, comprising health service and clinical experts, were established to provide advice on specific policy, quality, communication, education, monitoring, and evaluation aspects of the Pilot.

A Pilot Register was established to invite and follow-up Pilot participants and to assist in collection of data to monitor Pilot outcomes.

Immunochemical fecal occult blood tests (FOBTs) are being mailed directly to people aged 55—74 years living in the three Pilot sites over a period of 18 months. Two different tests are being used, and distribution of tests has been randomised within each Pilot site.

Pilot Participants who have a positive FOBT result are followed up via colonoscopy.

RESULTS: An evaluation of the Pilot will be finalised in October 2004. A summary report on the outcomes of the Pilot to date will be available at the May IBSN meeting.

TITLE: **Organization of Population-Based CRC Screening Pilot Programs in France: The Example of Herault**

AUTHORS: **H. Sancho-Garnier, and the members of the scientific committee of the CRC screening program in Herault**

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KEYWORDS: CRC screening, pilot program, France, organization, quality insurance

BACKGROUND: The implementation of 20 pilot programs for colorectal cancer (CRC) screening was decided by the French national health authority in 2002. The screening test used in the pilots is the fecal occult blood test (FOBT) without rehydration, performed every 2 years. The population targeted is 50—74-year-old men and women without genetic susceptibility, known polyposis, or CRC. The geographical population base is the "departement" (i.e., 896440 inhabitants in Herault). A cancer register exists in this "departement."

OBJECTIVE: The organization aims at insuring a high quality screening service to the participants, to maximize the benefit and minimize risks.

METHODS: A national guideline for CRC screening has been developed. Each pilot program is managed by a local structure (the same one as for breast cancer screening). This structure ("depistage 34") uses national insurance files to invite the targeted population to consult their general practitioners (GPs) regarding CRC screening. The GPs are in charge of:

- verifying eligibility
- giving the test (free of charge)
- explaining all processes and steps in the program
- referring positive cases to specialist for colonoscopy and treatment if necessary
- collecting and sending the data to "depistage 34"

All of the GPs were invited to a training session before the beginning of the campaign, which was launched October 1, 2003, in the southwest area. Approximately 60% of the GPs participated in this training.

The tests are sent to an accredited center (Marseille) to be interpreted. A high participation rate (>50%) is insured by "depistage 34," which is in charge of a local communication plan, personal invitation and re-invitation, and specific training of GPs. Quality control of colonoscopy and pathological exams is regularly performed following national guidelines. Indicators (% of positive tests, % lost to follow-up, % of adverse effects, % of polyps, % of cancers...) are calculated and monitored by the management unit, which also is linked to the cancer register.

TITLE: **Moving from Trials to Screening Programmes: Arguments for a Large-Scale Randomised Trial on Colonoscopy Screening**

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BACKGROUND: Long-term follow-up results of randomised trials using faecal occult blood testing (FOBT) have shown a reduced mortality from colorectal cancer (CRC). Five-year results from similar studies using flexible sigmoidoscopy (FS) are expected in 2005–7 (U.K., Italy, and Norway). Randomised studies on colonoscopy screening, however, have not been initiated with CRC incidence and mortality as endpoints. Colonoscopy screening has been recommended for some years in the United States. Also, Germany, Italy, and Poland have launched national colonoscopy screening programmes. Norway has a higher CRC incidence rate than any of these countries and traditionally a high attendance rate for screening programmes. There is some concern about possible unfavourable influence of screening programmes on lifestyle and cardiovascular disease as well as quality issues regarding the performance of colonoscopy.

OBJECTIVE: To raise awareness of the feasibility and advantages of introducing colonoscopy screening through a stage of randomised trial.

METHODS: Published data and experience from two Norwegian endoscopy trials have been the basis for our choice of strategy—the Telemark Polyp Study no. I (TPS-I) and the Norwegian Colorectal Cancer Prevention (NORCCAP-I) trial.

RESULTS: Preliminary data from the NORCCAP-I trial suggest that the beneficial effect of FS screening may be less than expected. Rather than wait for the NORCCAP-I 5-year follow-up results and lose time in relation to expected political initiatives on screening, we are trying to launch NORCCAP-II, a randomised trial of colonoscopy screening of average risk population at 55–64 years of age.