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Results from the Swiss mammography screening pilot programme

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Abstract

The first Swiss mammography screening pilot programme operated between 1993 and 1998. Approximately 15 000 women aged 50–69 years and residing in western Switzerland (canton of Vaud) were offered a biennial screening. Quality standard recommendations for screening were met for most performance indicators. Some 4.6%/2.3% (prevalent/incident round) of participants were referred for further assessment, and 84.7%/75.6% of them turned out not to have cancer. Specificity was high (96.1%/98.2%) and the cancer detection rate amounted to 7.0/1000 and 5.9/1000 in the prevalent and incident rounds, respectively. Some 30%/26% of cancers in screened women were interval cancers, which were at a more advanced stage than screen-detected tumours. Screening performances improved with time and age. The objectives of feasibility and acceptability of an organised mammography screening programme in the liberal Swiss healthcare system, where routine opportunistic screening existed, were achieved and contributed to the implementation of screening programmes in two additional Swiss cantons.

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Keywords: Switzerland; Pilot projects; Breast neoplasms; Mass screening; Evaluation studies; Women

1. Introduction

In the wake of the cumulative evidence that high quality mammography screening can be effective in lowering breast cancer mortality in females aged 50 years and over [1], a Swiss mammography screening pilot programme was established in 1993 [2]. This was the first ever organised and implemented cancer screening project in Switzerland, a country with one among the highest mortality rates from breast cancer worldwide [3].

The screening programme was introduced in three districts of the French-speaking canton of Vaud (western Switzerland) for women aged 50–69 years. It was developed in the context of a liberal healthcare system [4] where routine opportunistic screening has been spreading over the last decade. When the pilot programme started, the canton of Vaud had one of the highest self-reported mammography rates in Switzer-

land, with approximately 60% of ever-users and nearly 20% of annual users among 50–69 year-olds [5–7]. The pilot project was conducted with the financial support and under the auspices of local Health Department Authorities. The primary expectations put on this public health intervention were (1) a more rational, quality-assured, utilisation of mammography, (2) an increased use of conservative surgery and, (3) in due time, a reduction in the mortality burden from breast cancer. The feasibility and acceptability of the Swiss pilot trial were demonstrated [8] and led to its extension to the whole canton in early 1999. It also contributed to the launch of similar programmes in the neighbouring cantons of Geneva and Wallis.

This paper presents the main results of the evaluation of performance from the 5 years of operation (1993–1998) of the Swiss pilot programme, which was set in a context where opportunistic mammography screening was prevalent. Indicators of the process evaluation and early outcomes of screening are presented and discussed along with recommended European standards [9,10] for quality assurance, and experiences from other comparable programmes.

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2. Patients and methods

2.1. Recruitment

The programme was managed and co-ordinated by the Breast Cancer Screening Foundation, Lausanne (BCSFL), created in 1990 for this intent. Initially set up for a quadrennial period, the pilot programme ran from 1 October 1993 to 31 January 1999 before being extended to the entire canton. The target population comprised all female residents aged 50-69 years of the Vaud canton districts of Aubonne, Morges and Aigle. The contiguous districts of Morges and Aubonne encompassed the western outskirts of Lausanne (the capital of the Vaud canton) as well as rural and semi-urban areas (Fig. 1). The district of Aigle, eastwards from Lausanne, made up one third of the target population and included chiefly rural and alpine communities. The distributions of main socio-demographic features in the target population were not materially different from those for the entire canton of Vaud [11]. Lists of resident women were provided by the population registers of the 66 administrative municipalities covered by the pilot programme. Registration with the population register is mandatory in Switzerland and these administrative data were thus used as a reliable and exhaustive source for recruitment. Individual demographic records were provided and updated annually to account for migration, deaths and women turning 50 years of age.

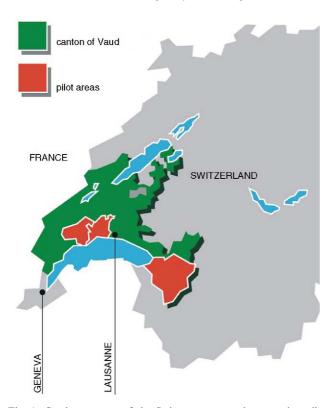


Fig. 1. Catchment area of the Swiss mammography screening pilot programme.

2.2. Invitation procedure

Altogether, 15 018 women were offered on a biennial basis a free of charge mammography examination. The invitation material consisted of a personalised letter and an information booklet describing in lay terms the programme, as well as the advantages and limitations of mammography as a screening test (see Appendix). Invited women were requested to call the BCSFL to make an appointment for screening. Two dedicated radiology centres, located within public hospitals, were available for screening, and women were assigned to either centre, depending on their place of residence (Morges for Aubonne and Morges districts residents, Aigle otherwise). Those who did not intend to participate were asked to fill an enclosed reply form which sought their reasons for non-participation, and return it in a prepaid, self-addressed envelope. Non-respondents were mailed up to two reminders (one maximum in the incident screening rounds). Almost two-thirds of women responded to their invitation. Among eligible respondents who did not participate, approximately 90% were either already followed-up by their physician (opportunistic screening) or had their last mammogram performed in the previous 2 years. The main features of the Swiss pilot programme are summarised in Table 1.

2.3. Screening procedure and data collection

Two-view mammography, that is craniocaudal and 45° mediolateral oblique, and blind double reading was systematically carried out. Films were processed on-site and checked for technical accuracy before the woman was dismissed (no technical repeat). The mammography was performed by qualified and specially trained radiographers, who also asked each participant a set of questions about selected health prevention behaviours, reproductive history, taking of hormone replacement therapy, and family and personal history of breast cancer. Clinical breast abnormalities, self-reported or detected while performing mammography, were recorded. All information were entered in the screening database directly on-site and this was made easier as the screening units operated on alternate days. Each mammography was read independently by two radiologists. In case of dissent, a third reading was performed, either by arbitration (Aigle) or consensus (Morges). Both the woman and her referring physician were notified of the screening outcome by letter. The referring physician, mostly and traditionally gynaecologists in this target population, took charge of further diagnostic assessment. The BCSFL monitored the follow-up procedure and registered the findings. In case of surgical intervention, a copy of the histopathological protocol was requested. Screen-detected cancers were notified to, and validated by, the Vaud Cancer Registry which covers

Table 1
Main features of the Swiss breast cancer screening pilot programme

Target population: Asymptomatica women, aged 50-69 years (N= ca. 15 000) Catchment area: Vaud canton districts of Morges, Aubonne and Aigle Screening test: Two-view mammography (no physical examination) Number of screening units: Two (in public hospitals: Morges and Aigle)

Number of radiologists involved:

Film reading practice: Blind double reading

Type of third reading: By arbitration (Aigle) or consensus (Morges)

Screening frequency: Bienni

Organisation: 'Fondation pour le Dépistage du Cancer du Sein, Lausanne' (non-profit, private)
Time frame: October 1993–January 1999

October 1993–January 1999 > 90% from public health sector

Participation fee: N

the screening catchment area [12]. Linkage between the BCSFL and Vaud Cancer Registry databases allowed for the identification of cancers diagnosed subsequently to screening (not necessarily known to the BCSFL). Breast cancer refers to any histologically-proven malignant carcinoma of the mammary gland tissue, including ductal carcinoma in situ (DCIS). Histological types were grouped as ductal (ICD-0, ninth revision: 8500–8506), lobular (8520–8521) or other. The definition proposed by the European Commission for interval cancers was used [9] but with a maximum screening interval of 27 months, which was the actual mean time interval between the two screening tests in the pilot programme (median: 26 months). The sensitivity was defined as the number of women with screen-detected cancers divided by the sum of screen-detected and interval cancers. Specificity was the number of true-negative cases (woman without breast cancer diagnosed during the 27-month screening interval) divided by the true-negatives and false-positives (women referred for assessment following screening, but with no malignant cancer diagnosed).

2.4. Screening eligibility

Financing:

Ineligibility criteria for screening included: a personal history of breast cancer, having a breast prosthesis, a current breast symptom (nipple discharge or inversion, breast distortion (dimpling) or apparent breast lump) or breast treatment, a serious health problem (which did not justify breast mammography) or on demographic grounds (outside the age range, moved out of the pilot area prior to the invitation, deceased, etc.). When the ineligibility status was elicited only during the screening appointment, the woman was nevertheless screened and given the reason why she would not be re-invited. Ineligible cases were discarded for the present evaluation; analyses also excluded data from the third screening round. Although the age range for eligibility was set between 50 and 69 years, women aged 49 and 70 years at the time of intent of first contact were also invited, so that the actual target population for the first screening round covered the 49–70 year age bracket. This was not so in the subsequent rounds for which only eligible women aged 50–69 years were automatically re-invited. The few women invited after 30 September 1998 were excluded from the present evaluation, as their follow-up was too limited to be accounted for within the time-frame of the pilot project.

3. Results

Overall, 14 330 women were included in this study and 10 371 screening tests were performed (6839 prevalent and 3532 incident screens). The age distribution of the target population was skewed towards younger ages because the age at invitation for the prevalent screen changed over the years and included mainly those aged 50 years from 1996 onwards (50–54 years: 47%; 55–59 years: 20%; 60–64 years: 17%; 65–69 years: 17%).

The participation rates were 42 and 45% in the first and second rounds, respectively, and the reattendance rate (% of first-round participants screened in the second round) was 78%. Performance indicators for the prevalent and incident screens are given in Table 2 along with acceptable and desirable European standards. For comparison purposes, data are confined to 50-64-year-olds, the age range to which European standards apply [9,10]. Regarding indicators of quality, 4.6% of first-time participants were referred for further assessment and one cancer was detected for every 159 women screened (6.3/1000). For the incident round, for which films and medical records from the previous screen were available, the referral rate and the cancer detection rate dropped to 2.1% and 3.9/1,000 (1 in 255), respectively. Some 84.7% and 75.6% of women referred for further assessment in the prevalent and incident rounds, respectively, turned out not to have cancer. With two histologically-proven benign lesions for each malignant lesion and a benign open biopsy rate (false-positive rate) of 1.3%, the burden of unnecessary biopsies was above European recommendations in the prevalent round. The indication for surgical biopsy improved

^a Symptomatic status based on the report from the radiographer.

substantially in the incident round (Table 2), and the biopsy yield increased from 33 to 42% between the prevalent and incident rounds (data not shown). Regarding the indicators of efficacy, clinical parameters of screen-detected tumours showed, albeit based on small numbers, that the Swiss pilot programme met the desirable European standards (apart from a high proportion of DCIS). Screening efficacy improved overall between the prevalent and incident screens, with a reduction in the fraction of node-positive and advanced cancers detected.

As the decrease in breast density with age facilitates the radiological interpretation of mammograms, screening performances tend to improve with age. The quality of the screening was overall better in the 60-69year than the 50-59-year age range in either round (Table 3). The combination of a higher referral rate and better positive predictive value (PPV) for those aged 60-69 years than those aged 50-59 years resulted in a 3- to 4-fold ratio in cancer detection rates between these two decennial age groups. Specificity was high regardless of age and screening round, whereas sensitivity was low, especially for those under age 60 years. Interval cancers represented 30 and 26% of all notified breast cancers in the prevalent and incident rounds, respectively. Biopsyrelated performances (PPV and benign/malignant ratio) were notably better for the 60-69-year than the 50-59-year female population. However, the rate of histologically-proven false-positives was largely independent of age.

In comparison with interval cancers, screen-detected tumours were of a smaller size and less likely to involve axillary lymph nodes (Table 4). No substantial differences emerged between the characteristics of tumours detected in the prevalent and incident rounds (data not shown). All interval cancers were invasive. The mean tumour size of the interval cancers doubled between those diagnosed within the first and second year after screening (1.6 versus 3.0 cm).

4. Discussion

The two main objectives of the Swiss mammography screening pilot programme, that is, to demonstrate the acceptability (by both the medical body and the women) and feasibility of a screening programme integrated within the existing liberal healthcare delivery system, were achieved. This paper reports results of the first epidemiological evaluation of the Swiss pilot trial, which favoured the implementation of organised breast cancer screening in three cantons of Switzerland.

Acceptability was reflected in the satisfactory participation and reattendance rates. It is worth noting that maximising the participation was not a primary objective

Table 2 Core figures of screening performance among 50–64 year-olds in the Swiss pilot programme of Vaud (1993–1998), and comparison with European standards, by screening round

Performance indicators	Screening round		European standards ^a (acceptable/desirable)	
	Prevalent ($N = 5723$)	Incident (N = 2809)	Prevalent	Incident
Indicators of quality				
Referral rate (%)	4.6 (262/5723)	2.1 (60/2809)	< 5/ < 7	< 3/ < 5
Sensitivity (%) ^b	67.9 (36/53)	64.7 (11/17)		
Specificity (%) ^b	96.0 (5446/5670)	98.3 (2744/2792)		
Benign open biopsy rate (%)	1.3 (75/5723)	0.5 (15/2809)	< 0.5 / < 0.4	< 0.35/ < 0.2
Benign/malignant biopsy ratio	2.1 (75/36)	1.4 (15/11)	< 1/ < 0.5	<1/<0.2
Cancer detection rate (‰)	6.3 (36/5723)	3.9 (11/2809)		
Invasive	4.7 (27/5723)	2.8 (8/2809)	≥8.5°	≥4.2°
In situ	1.6 (9/5723)	1.1 (3/2809)		
FNAC procedures with insufficient results (%)	22.4 (11/49)	22.2 (2/9)	< 15/ < 25	< 15/ < 25
Indicators of efficacy				
DCIS (%)	25.0 (9/36)	27.3 (3/11)	10/20	10/20
Invasive cancers ≤ 1 cm (%)	51.9 (14/27)	50.0 (4/8)	$\geqslant 20/\geqslant 25$	$\geqslant 25/ \geqslant 30$
Node-negative cancers (%)	73.1 (19/26)	87.5 (7/8)	≥70	≥75
Stage II + (%)	27.8 (10/36)	18.2 (2/11)	€25	≤20
Interval cancer rate (‰) ^b	3.0 (17/5723)	2.1 (6/2809)		
0–11 months	0.7 (4/5723)	0.7 (2/2809)	< 0.8d	$< 0.8^{d}$
12–23 months	1.9 (11/5723)	1.1 (3/2809)	< 1.4 ^d	<1.4 ^d

FNAC, fine needle aspiration cytology; DCIS, ductal carcinoma in situ.

^a When targets differed between the second and third edition of the European Guidelines [9,10], the most recent one was used.

^b For definition, see Patients and methods section.

^c At least 3 and 1.5 times (prevalent and incident rounds, respectively) the expected incidence rate in the absence of screening. The latter was estimated by the 1989–1993 incidence rate in the entire canton of Vaud, that is, the quinquennial time period preceding the screening programme.

^d European recommendations are 30 and 50% of the expected incidence rate in the absence of screening, for the first and second year after the screening test, respectively.

Table 3
Selected indicators of screening quality and efficacy for the Swiss pilot programme of Vaud (1993–1998) by age group and screening round

Performance indicators	Screening round		
	Prevalent (<i>N</i> = 6839)	Incident (N = 3532)	
Referral rate (years)	4.6% (316/6839)	2.3% (83/3532)	
50–59	4.3% (191/4417)	2.0% (40/1968)	
60–69	5.2% (125/2422)	2.7% (43/1564)	
Sensitivity (years)	69.6% (48/69)	74.1% (20/27)	
50–59	61.3% (19/31)	45.5% (5/11)	
60–69	76.3% (29/38)	93.8% (15/16)	
Specificity (years)	96.1% (6504/6770)	98.2% (3443/3505)	
50–59	96.1% (4216/4386)	98.3% (1923/1957)	
60–69	96.0% (2288/2384)	98.2% (1520/1548)	
Cancer detection rate (years)	7.0% (48/6839)	5.9‰ (21/3532) ^a	
50–59	4.3% (19/4417)	2.5‰ (5/1968)	
60–69	12.0‰ (29/2422)	10.2‰ (16/1564)	
Interval cancer rate (years)	3.1% (21/6839)	2.0% (7/3532)	
50–59	2.7‰ (12/4417)	3.0 (6/1968)	
60–69	3.7‰ (9/2422)	0.6‰ (1/1564)	
Benign open biopsy rate (years)	1.3% (89/6839)	0.5% (18/3532)	
50–59	1.3% (59/4417)	0.6% (11/1968)	
60–69	1.2% (30/2422)	0.4% (7/1564)	
Biopsy yield (PPV) (years)	35.0% (48/137)	52.6% (20/38)	
50–59	24.4% (19/78)	31.3% (5/16)	
60–69	49.2% (29/59)	68.2% (15/22)	
Benign/malignant biopsy ratio (years)	1.9 (89/48)	0.9 (18/20)	
50-59	3.1 (59/19)	2.2 (11/5)	
60–69	1.0 (30/29)	0.5 (7/15)	

PPV, positive predictive value.

Table 4 Characteristics of screen-detected and interval cancers, Swiss pilot programme of Vaud (1993–1998)

Tumour characteristics	Cancers		
	Screen-detected	Interval	
	N (%)	N (%)	
Invasive status			
In situ	14 (20.3)	-(0.0)	
Invasive	55 (79.7)	28 (100.0)	
Pathological tumour size ^a (cm)			
€0.5	7 (12.7)	-(0.0)	
> 0.5–1	17 (30.9)	3 (10.7)	
> 1–2	21 (38.2)	11 (39.3)	
> 2	10 (18.2)	14 (50.0)	
Axillary node status ^{a,b}			
Negative	40 (4.1)	16 (57.1)	
Positive	14 (25.9)	12 (42.9)	
Histological type ^{a,c}	` /	` ′	
Ductal	46 (83.6)	18 (64.3)	
Lobular	8 (14.5)	7 (25.0)	

^a For invasive cancers only.

of this experimental programme. The allotted and fixed time slots of both radiology centres for screening sessions, 3 days a week altogether, was not planned to screen the entire target population. Targets such as those set for the participation rate by the European Commission (acceptable and desirable standards of over 70 and 75%, respectively) were thus not logistically reachable. The high occupancy rate of the screening units, operating often close to their full capacity, suggests that higher participation might have been achieved under different circumstances. This self-limited participation compared nevertheless favourably against the 25 - 50% screening uptake reported in the early stages of projects carried out in neighbouring countries with similar healthcare systems [13–17]. While maximising participation is of paramount importance for mammography screening to achieve its full effectiveness, this requires political willingness and commitment, particularly in countries like Switzerland where opportunistic and organised screening activities have to coexist. An organised screening programme permits universal accessibility to screening (including target groups that are otherwise hard to reach), promotes increased

^a One woman diagnosed with a bilateral tumour.

^b One case with unknown nodal status.

^c Three tubular (one screen-detected and two interval cancers) and one mucinous adenocarcinoma.

adherence, ensures routine and ongoing technical quality assurance (double reading, control of radiological equipment, proper training of radiologists and radiographers), contributes to a rational utilisation of medical resources, and must include strict evaluation and overall programme monitoring.

There is no specific estimation of the extent of opportunistic screening in the canton of Vaud, or in Switzerland. Data from the Swiss health survey prior to the pilot programme suggest that approximately 20% of the 50-69-year-olds in the Vaud canton had a mammography performed annually and 60% were ever-users, although no distinction was made between screening and diagnostic mammography [5–7]. Some 20% of the non-participants to the pilot trial replied they were individually followed-up, which probably underestimates the true fraction of non-respondents who undergo opportunistic screening. Determinants of participation in this pilot trial and whether participants came primarily from women regularly screened or stemmed from a previously unscreened part of the population are being further investigated.

Screening performances met most international standards for quality assurance and showed that medical skills required for high quality breast cancer screening exist in Switzerland, although many physicians were still not familiar with mass screening. Prescriptions of biopsy were, however, too frequent, especially among subjects below 60 years of age and in the prevalent round. Due to the invasive nature of the procedure, educational efforts are important in this area. The initial lack of explicit recommendations for positive mammograms and the comparatively low use of additional imagery as an aid-to-diagnosis may, in part, explain the frequent practice and rather low yield of biopsies. The higher than recommended proportion of DCIS, although based on small numbers, warrants a careful scrutiny to ensure that lesions whose natural history remains largely undefined are not overly detected.

Overall improvement in performances between prevalent and incident screens suggests that the first round constituted a learning phase, although a distinction between improvement due to the availability of comparison films from the previous screen from genuine improvement based on increasing experience among radiologists is difficult. In this respect, comparison of performances between prevalent screens in the first and second rounds could be useful [17,18], but the marked difference in age distribution between these two populations would have rendered any interpretation too speculative.

European standards were used as a general guideline and basis for comparing screening performances across programmes. For instance, the referral rate in the Swiss pilot programme was comparatively low [14,15,17,19–

21] but was associated with a high specificity. Achieving a low referral rate (and high specificity/low sensitivity), like in The Netherlands [22], or a high referral rate (and low specificity/high sensitivity) depends, to some extent, on the programme policy and strategy. The low proportion of women recalled for further investigation and the adequate reassurance provided to most participants contributed to the acceptability of the Swiss pilot trial and possibly to the comparatively low level of anxiety experienced [23,24]. Limiting and monitoring anxiety, particularly after an abnormal mammography, was of concern in this experimental programme as many women were unfamiliar with the screening concepts of delayed notification of the test outcome and of a false-positive result. Also anxiety has often been argued as a factor that should be considered by those disputing organised breast cancer screening.

The measures of sensitivity and specificity of the Swiss pilot trial, which reflect sensitivity of the screening test, lead time, length of the screening interval and screening policies, are not direct measures of the sensitivity and specificity of the mammography per se. The sensitivity lies in the lower range of reported figures [25], although strict comparisons between programmes are difficult. The high specificity of the screening test, small numbers of cancers and the high completeness of ascertainment of cancer cases by the Vaud Cancer Registry [12] could largely explain this result. If further confirmed, the less favourable prognostic profile for interval than screen-detected cancers could be indicative of screening effectiveness. It could also reflect the limitations of mammography as a screening tool as some of these cancers might have been detected by clinical palpation. To assess which proportion of interval cancers were in a preclinical detectable phase at the time of screening and devise a strategy to improve the sensitivity of the programme, without lowering substantially its specificity, warrants a systematic, standardised review and classification of interval cancers.

European standards for the cancer detection rate and interval cancer rate are based on expected incidence in the absence of screening [9,10]. In many countries, opportunistic screening has, however, existed for several years prior to the implementation of an organised programme so that the incidence of breast cancer is probably higher than it would be without screening. Use of historical rates to estimate the expected incidence may thus not be adequate and European targets (see footnote c, Table 2) appear likely to be too high for areas where opportunistic screening has been prevalent. Furthermore, in situ lesions are included in the definition of the detection rate [9,10], whereas published incidence rates for non-invasive lesions are rarely available routinely [26] and on a standardised basis from populationbased cancer registries.

Acknowledgements

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Appendix. Information booklet

Parce que santé rime avec plaisir de vivre

Fondation pour le dépistage du cancer du sein

Etre en bonne santé n'est certes pas exceptionnel de nos jours. Cependant, la santé n'est jamais acquise une fois pour toutes.

Elle doit être entretenue.

A tout âge, la santé est un élément essentiel du plaisir de vivre!

Lisez attentivement cette brochure!

Faites un geste important pour votre santé!

De quoi s'agit-il?

Le cancer du sein frappe une femme sur dix en Suisse romande et continue de gagner du terrain!

Pourtant, lorsqu'elle est découverte à temps, cette maladie peut être soignée de manière efficace. Les chances de guérison sont grandes. Souvent, il est même possible d'éviter la mutilation redoutée.

La mammographie est le meilleur moyen de dépister le cancer du sein, puisqu'elle permet de déceler des lésions de l'ordre du millimètre.

C'est pourquoi un groupe de médecins, soutenu par les associations féminines, a décidé de mettre sur pied un programme pilote de dépistage du cancer du sein au cours duquel les femmes entre 50 et 70 ans reçoivent une lettre les invitant à effectuer une mammographie de dépistage.

Prenez soin de vous, prenez soin de votre santé!

La détection précoce d'un cancer du sein constitue la meilleure des précautions. La Fondation vous offre la possibilité de réaliser dans le cadre de son programme, une mammographie de dépistage.

Ce geste fait partie du soin qu'il vous est recommandé d'apporter à votre santé.

Le savez-vous?

La poursuite du programme et son extension au canton puis à la Suisse dépendent du taux de participation des femmes au programme pilote. Aujourd'hui, grâce au succès de ce dernier et avec l'appui de l'Association vaudoise pour les droits de la femme, de la Fédération romande des consommateurs et des Ligues vaudoise et suisse contre le cancer, la Fondation a obtenu que la mammographie de dépistage fasse partie des prestations remboursées par l'assurance maladie de base.

Dans le canton de Vaud, la Fondation s'emploie à généraliser le dépistage le plus rapidement possible.

En attendant, le programme pilote se poursuit aux mêmes conditions et selon les mêmes procédures que les années précédentes.

Comment participer?

Il vous suffit de contacter le secrétariat de la Fondation pour fixer un rendez-vous.

Dangereuse la mammographie?

Grâce à la qualité de l'équipement utilisé, la mammographie de dépistage que propose la Fondation ne présente pas de danger pour la santé.

La mammographie fait mal?

Pour obtenir une image de qualité, il est indispensable que le sein soit comprimé pendant quelques secondes. Seule une minorité de femmes trouve cet examen douloureux.

Mais n'oublions pas son utilité!

Si vous n'êtes pas encore ménopausée, il est préférable d'effectuer cet examen dans les jours qui suivent l'apparition des règles. Votre médecin vous renseignera sur le moment idéal pour le réaliser.

Vous avez déjà fait une mammographie?

Alors vous savez combien il est réconfortant d'entendre les paroles rassurantes du médecin lorsque l'examen est normal. Aussi, pour être certaine que rien n'a changé depuis votre dernière mammographie, renouvelez-la tous les deux ans comme vous le propose la Fondation.

Quels sont les résultats?

Les radiologues qui examinent votre mammographie de dépistage peuvent conclure de deux manières :

- soit vous pouvez être rassurée car aucune anomalie n'est détectée. Ceci se produit dans la grande majorité des cas (plus de neuf fois sur dix).
- soit une anomalie est décelée et des examens complémentaires doivent être réalisés (moins d'une fois sur dix).

Dans ces situations, peu fréquentes, la majorité des examens conclut à une affection bénigne, (fibrome, kyste, glande calcifiée, etc.)

C'est ce que confirme le tableau ci-dessous établi sur la base des multiples programmes de dépistage mis en œuvre un peu partout dans le monde.

Vous hésitez encore?

Vous avez des questions, des doutes, des appréhensions au sujet de la mammographie?

Parlez-en à votre médecin. Il vous connaît. Mieux que quiconque, il pourra répondre à vos questions et vous rassurer.

Peut-être souhaitez-vous en parler avec d'autres femmes?

Alors contactez le Bureau Information Femmes (BIF). Celui-ci tient sa permanence téléphonique à votre disposition tous les jours ouvrables entre 9h00 et 12h00.

Cherchez-vous d'autres appuis ou renseignements ? Voici quelques numéros de téléphone qui peuvent vous être utiles:

- Centres médicaux-sociaux
- Ligue vaudoise contre le cancer
- Consultations pour appui psychologique

You are invited to have a breast radiography, free of charge. If you wish more information on how to proceed, please call:

Sie sind zu einer kostenlosen Brust-Radiographie eingeladen. Für weitere Informationen betreffend den Ablauf rufen Sie bitte folgende Nummer an:

E invitata a fare una radiografia dei seni gratuita. Per ottenere informazioni più specifiche sul modo di procedere, può chiamare il:

Esta convidada para efectuar uma radiografia dos seios, gratuita. Para obter mais informaçoes sobre a maneira de proceder, nao hesite em contactar o Grupo Voluntario de Apoio à Mulher Portuguesa, através do numero:

Le invitamos a hacerse una radiografia de mamas gratuita. Para informarse del procedimiento no dude en llamar al numero :

Pozivamo vas da napravite radiografiju grudi. Besplatno je. Da bi dobili sto detaljnije informacije o nacinu na koji se to radi ne ustrucavajte se da nas nazovete:

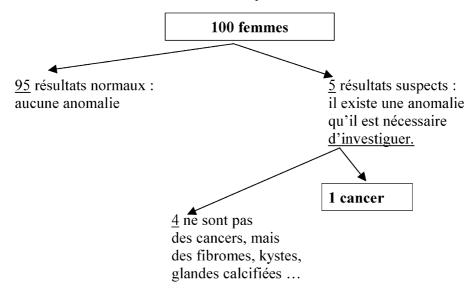
Sizleri, ücretsiz gögüs rontgeni cektiremeye, davet ediyoruz, Paha genis bilgi icin lütfen asagidaki numarayi arayiniz:

Ju ftojmë që ta bëni një radiografi të gjinjëve, falas. Që të keni informata më të hollësishme për mënyrën se si ta bëni këte, mos ngurroni për te na thirrur në tel:

Vous avez entre 50 et 70 ans?

Radiographie des seins : un geste simple pour être bien dans sa vie !

Et surtout n'oubliez pas, il n'est jamais trop tard pour prendre rendez-vous!



References

- Kerlikowske K, Grady D, Rubin SM, Sandrock C, Ernster VL. Efficacy of screening mammography. A meta-analysis. *JAMA* 1995, 273, 149–154.
- Paccaud F. Mammographic screening for breast cancer: background of a pilot program in the Canton of Vaud. Soz Praventivmed 1993, 38, 288–293.
- Levi F, Lucchini F, Negri E, La Vecchia C. Worldwide patterns of cancer mortality, 1990-1994. Eur J Cancer Prev 1999, 8, 381– 400.
- Faisst K, Schilling J, Koch P. Health technology assessment of three screening methods in Switzerland. *Int J Technol Assess Health Care* 2001, 17, 389–399.
- Institut suisse de la santé publique. Enquête suisse sur la santé 1992–1993: analyse comparée Vaud-Suisse. Lausanne, Institut suisse de la santé publique, 1996.
- Raymond L, Bouchardy C, Wanner P. Taux de participation à la mammographie de dépistage, d'après l'enquête suisse de santé 1992–93. In Haefliger J-M, Weber W, eds. Dépistage du cancer du sein. Bern, Swiss Cancer League, 1995, 72–93.
- Wanner P, Raymond L, Bouchardy C. Geographical disparities in self-reported use of mammography and breast self-examination according to the Swiss Health Survey [letter]. *Ann Oncol* 2001, 12, 573–574.
- De Landtsheer J-P, Hessler C, Levi F, Delaloye J-F, De Grandi P, Paccaud F. Dépistage organisé du cancer du sein et pratique médicale. L'expérience vaudoise: bilan et perspectives. *Bull Med Suisses* 1998, 79, 1615–1619.
- de Wolf C, Perry N, eds. Europe Against Cancer. European Guidelines for Quality Assurance in Mammography Screening, 2nd edn. Luxembourg, Office for Official Publications of the European Communities, 1996.
- Perry N, Broeders M, de Wolf C, Törnberg S, eds. Europe Against Cancer. European Guidelines for Quality Assurance in Mammography Screening, 3rd edn. Luxembourg, Office for Official Publications of the European Communities, 2001.
- Service Cantonal de Recherche et d'Information Statistiques. Annuaire Statistique du Canton de Vaud 1995. Lausanne, Service cantonal de recherche et d'information statistiques, 1995.
- Levi F, Te V-C, Randimbison L, La Vecchia C. Statistics from the Registry of the Canton of Vaud, Switzerland, 1988–1992. In Parkin DM, Whelan SL, Ferlay J, Raymond L, Young J, eds. *Cancer Incidence in Five Continents, vol VII. IARC Sci. Publ. No. 143.* Lyon, International Agency for Research on Cancer, 1997, 686–689.

- 13. Bleyen L, Van Landeghem P, Pelfrene E, De Vriendt M, DeSmet A, De Backer G. Screening for breast cancer in Ghent, Belgium: first results of a programme involving the existing health services. *Eur J Cancer* 1998, **34**, 1410–1414.
- Ganry O, Peng J, Dubreuil A. Evaluation du dépistage de masse du cancer du sein dans le département de la Somme (France) entre 1990 et 1996. Rev Epidémiol Santé Publique 1999, 47, 335–341.
- Séradour B, Allemand H, Schaffer P. Programme français de dépistage du cancer du sein. Résultats de cinq départements (1989–1994). Bull Cancer 1997, 84, 822–828.
- Wait SH, Allemand HM. The French breast cancer screening programme. Epidemiological and economic results of the first round of screening. Eur J Public Health 1996, 6, 43–48.
- Autier P, Shannoun F, Scharpantgen A, et al. A breast cancer screening programme operating in a liberal heath care system: the Luxembourg mammography programme, 1992–1997. Int J Cancer 2002, 97, 828–832.
- Moss SM, Michel M, Patnick J, Johns L, Blanks R, Chamberlain J. Results from the NHS breast screening programme 1990–1993. J Med Screen 1995, 2, 186–190.
- Paquette D, Snider J, Bouchard F, et al. Performance of screening mammography in organized programs in Canada in 1996. CMAJ 2000, 163, 1133–1138.
- Ascunce N, del Moral A, Murillo A, et al. Early detection programme for breast cancer in Navarra, Spain. Eur J Cancer Prev 1994, 3(Suppl. 1), 41–48.
- Alves JG, Cruz DB, Rodrigues VL, Goncalves ML, Fernandes E. Breast cancer screening in the central region of Portugal. *Eur J Cancer Prev* 1994, 3(Suppl. 1), 49–53.
- Fracheboud J, de Koning HJ, Beemsterboer PM, et al. Nationwide breast cancer screening in The Netherlands: results of initial and subsequent screening 1990–1995. National Evaluation Team for Breast Cancer Screening. Int J Cancer 1998, 75, 694– 698
- Cockburn J, Staples M, Hurley SF, De Luise T. Psychological consequences of screening mammography. J Med Screen 1994, 1, 7–12.
- Meystre-Agustoni G, Paccaud F, Jeannin A, Dubois-Arber F. Anxiety in a cohort of Swiss women participating in a mammographic screening programme. J Med Screen 2001, 8, 213–219.
- Mushlin AI, Kouides RW, Shapiro DE. Estimating the accuracy of screening mammography: a meta-analysis. Am J Prev Med 1998, 14, 143–153.
- Levi F, Te VC, Randimbison L, La Vecchia C. Trends of in situ carcinoma of the breast in Vaud, Switzerland. *Eur J Cancer* 1997, 33, 903–906.