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A call recall system for cervical cancer screening: report on the pilot project in the district of Kontich (Flanders/Belgium): 1991-1995

by

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Abstract

Purpose. *To describe a call recall pilot project for cervical cancer screening in the district of Kontich (Flanders/Belgium).*

Methods. *From October 1991 to December 1995, 36,000 women received a personal invitation from the project organization to have a Pap smear performed with their own GP. The Pap smear reports were received from the laboratories. Women who did not want to or could not participate, were given the opportunity to send back a reply card.*

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Results. *There were 10,223 women who had a Pap smear registered (28.4% of all invited women). Another 6,888 women (19.2%) sent back a reply card, leading to a total response of 47.6%, the highest response ever for a cervical screening programme in Flanders. A potential reduction of 16% in invitations for the recall could be reached. Relatively fewer older women, especially from 56-60 years on, are registered as participants in the project. On the other hand, overscreening can be observed in younger women. The percentages of women in whom epithelial changes were reported, vary from 0.9% to 1.6%, according to the laboratory.*

Discussion. *Given the positive results of the call recall pilot project in the district of Kontich, implementation of this call recall scheme in Flanders seems to be justified. Nevertheless, a lot of work still has to be done, since several prerequisites for an efficient screening programme have not yet been met: a complete Pap smear register, a uniform training of cytopathologists, a centralized medical patient record administered by the GP and a referral system from the GP to the specialist.*

Key-words

Belgium, cervical smears, cervix neoplasms, mass screening, pilot projects, programme evaluation.

1. Introduction

One out of every 77 Flemish women between the ages of 0 and 74 years will develop cervical cancer during her lifetime (1). At a level of 5.2%, cervical cancer ranks as the third most common cancer in women, after breast cancer (33.1%) and colorectal cancer (13.9%) (1). Although it is not possible to reduce cause specific mortality to zero, a good deal of uterine cancer deaths in Flemish women could have been avoided if medical interventions such as screening were optimized (2). Women who die from cervical cancer have an almost twelve years lower life expectancy compared to the mean life expectancy of the whole female population (3).

It has been possible to detect cervical pre-cancerous lesions by means of cytopathological examination of cervical smears for over 50 years (4). The benefits of organized screening have been demonstrated

when women in the target age group have a Pap smear regularly. Various schemes with different age groups and frequencies have been recommended (5-8). Usually the starting age recommended is between 25 and 35 years of age. Some prefer a starting age sooner after age 20 years (9). Routine screening of teenagers, however, does not seem justified (10). The recommended age to stop screening is usually between 50 and 65 years of age. This does not alter the fact that women of over 65 who insist on it, can still have routine Pap smears performed. The recommended interval between two normal Pap smears either is 3 or 5 years.

In 1965, cervical cancer screening in Flanders started with local initiatives in certain municipalities without any guarantee of continuity or evaluation. Women were invited by a cancer prevention centre to have a Pap smear in a screening unit. These traditional mass screening programmes always had a very low attendance rate (5-20%) (11). Outside the organized screening programmes there was also a lot of non-registered screening with private gynaecologists and GPs. The participation in this non-organized screening largely exceeded and still exceeds that in the organized screening. As a result of this, the intention to set up a call recall system was growing at the end of the eighties. In the project described below, the main purpose was to begin a call recall system for cervical cancer screening within the existing health care system in the district of Kontich (Flanders/Belgium). A study of literature revealed that a call recall system offers the best guarantees for an efficient organization of cervical cancer screening (12). In a call recall system people are sent a first invitation to attend an examination ("call") and then, according to age, the result of the previous examination and the time span since the last examination, re-invited at regular intervals ("recall").

In this article, the items that will be presented and discussed are the participation, the registration of unorganized screening, screening frequency, effect of programme interventions, cytopathological findings and the potential reduction in the number of invitations for a next round thanks to the call recall system.

2. Materials and methods

The district of Kontich consists of 7 municipalities south of the city of Antwerp, in the northern, Dutch speaking part of Belgium: Boechout-Vremde, Borsbeek, Edegem, Hove, Kontich, Lint and Mortsel. The district has over 105,000 inhabitants. A call recall pilot project for cervi-

cal cancer was started in this district on October 1st 1991 making use of the existing health care structure. The project was guided by a Steering Committee including representatives of the local authorities (the Alderman of Public Health of each municipality), different groupings of GPs (a GP-coordinator of each municipality and the Scientific Association of Flemish GPs), the Provincial Institute of Hygiene and the research group Epidemiology and Community Medicine of the University of Antwerp (Centre for Cancer Prevention). The project ran until December 31st 1995.

In the analysis, the research period will be divided into quarters. As far as these quarters are concerned, quarter 1 is the period from October to December 1991, quarter 2 the period from January to March 1992 and so on, with quarter 17 (October to December 1995) being the last quarter. Quarter zero is the period before October 1991.

During the research period, almost 36,000 women received a personal invitation from the project organization to have a Pap smear performed with their own GP (the "call"). All women between 20 and 65 years of age were invited. Since the project allowed the different municipalities to add their own touch, 2 municipalities (Edegem and Hove) decided to invite all women between 18 and 70. The Pap smear reports were received from the laboratories: 77.7% of the GPs of the region had given their permission for the laboratories to release a copy of the protocol to the project organization of the call recall system. The laboratories for cytopathology in Flanders do not all yet use the recommended Bethesda system for cytopathological reporting (13). The Pap(anicolaou)-classification on the other hand is still widely used. To avoid interpretation errors as much as possible, the Pap-classification was not translated to Bethesda categories but used as such. Usually, Pap-classification I (Pap I) and Pap-classification II (Pap II) mean that no serious abnormalities are found.

The women who did not want to or could not participate, were given the opportunity to send back a reply card. On the reply cards, women could indicate why they did not accept the invitation to have a Pap smear: fear, recently screened for cervical cancer, no reason, other reasons (for instance regularly screened, total hysterectomy, pregnancy, living abroad for a long period).

After a period of one year, those women who had not reacted were sent a reminder. After 3 years a recall was sent to those women for whom no recent Pap smear had been registered and for whom there

was no reply card or a reply card that indicated that they were due for a Pap smear (for instance when the reply card indicated that the last Pap smear was not performed in the recent past). As the administrative completion of a recall takes some time and since a delivered invitation letter is not necessarilly responded to the day after, every Pap smear registered in the last 2 years was considered recent.

The project was set up as a registration project. The registered data concerned in the first place Pap smear reports but also data about women who had undergone a total hysterectomy or who were under follow-up or treatment for serious cervical dysplasia or cervical cancer. These data formed the starting point for the "recall".

To assess the response, 2 elements were taken into account:

i) women who had a Pap smear registered;
ii) women who sent back a reply card.

The project design was such that women had a continuing opportunity to have a Pap smear performed during the research period, so that the same woman could have different Pap smears performed in different age groups. In addition, since the project ran for 4 years and 3 months, women who reached the lower age limit entered the invitation procedure and women who reached the upper age limit were removed from the invitation lists. It was therefore not directly possible to calculate the proportion of each age group who were registered with a Pap smear in this dynamic population. The basic methodological problem of comparing the response in several screening rounds and between different projects could be tackled by making use of the person-time incidence rate. To simplify the analysis, in this study the distributions of registered women and Pap smears, both split up by age group, will be compared to the age group distribution of the corresponding section of the female population. The assumption when using this method is that the dynamic population is constant as far as age is concerned. Of course, the result of this analysis is only a substitute for the relative attendance rate by age group. Because the different municipalities started with the project at different points in time, an additional problem arises when calculating response. Therefore, the data of three interim reports and the final report of this study will be used to present the evolution in response over time.

The effect of the programme interventions on the response will be illustrated by the Edegem data. The programme started first in Edegem, one of the biggest municipalities of the district, so the influence on the Edegem response data of the surrounding municipal programmes was,

at least in the beginning of the project, minimal. Moreover, the observation period for this municipality is longest.

Although a privacy legislation only came into effect after the start of the call recall pilot project in the district of Kontich, anonymity of the analysed data was considered top priority from the beginning. Before putting the data into the computer, a unique identification consisting of birth date, zip code, and street number was constructed for each woman to make sure that double counts could be avoided. The original data were not used for scientific analysis and destroyed after extraction of the needed information. Anonymity of the analysed data was all the more important because the data were derived with consent of the GPs and not of the women. This also implies that women who consulted their GP following the invitation but whose GP did not give permission to use the Pap smear reports, were not registered as participant. On the other hand, if their GP had given his permission, it was possible to register women who did not consult for a Pap smear following the invitation but due to other incentives (such as a tradition of having Pap smears performed or contraceptive pill control).

The data were analysed by means of the CSS (Complete Statistical System) programme (14), the confidence intervals around proportions were calculated with the CIA (Confidence Interval Analysis) programme (15).

4. Results

4.1. Response

4.1.1. Total response

Between October 1st 1991 and December 31st 1995, 10,223 women had a Pap smear registered in the data base. This means that of all invited women over the whole research period (n=35,951), 28.4% were registered with a Pap smear. Apart from the women who had a Pap smear registered, another 6,888 women (19.2%) sent back a reply card, leading to a total response of 47.6% (n=17,111). Women who were registered with a Pap smear and who also sent back a reply form were only counted as registered with a Pap smear. The total number of women that was registered steadily increased over time (table 1). To calculate the response, table 1 also includes women with information of

more than 3 years old, since all these women were invited and responded to the invitation. In the further analysis, a distinction will be made between recently and not recently screened women.

TABLE 1

Total response over time: women who had a Pap smear registered or who sent back a reply card (absolute numbers and percentages of all invited women)

Total response up to 31.12.92 (Interim I)	Total response up to 30.09.93 (Interim II)	Total response up to 31.03.95 (Interim III)	Total response up to 31.12.95 (Final report)
7,620/34,123 = 22.3%	11,713/34,709 = 33.7%	16,132/35,342 = 45.6%	17,111/35,951 = 47.6%

The vast majority of women who sent back a reply card had recently had a Pap smear performed (4,567/6,888=66.3%) or were screened regularly by their GP or gynaecologist (937/6,888=13.6%). In addition to these recently or regularly screened women, women "having had a hysterectomy" (344/6,888=5.0%) can be seen as having a good enough reason not to accept the invitation for screening. Also women who were pregnant when they received the invitation (220/6,888=3.2%), have a good reason not to participate at that moment. This means that in total, 88.1% of those women who sent back a reply card (6,068/6,888), although not registered with a Pap smear in the screening programme, could be labelled as not due for a(n) (extra) Pap smear.

The remaining 11.9% of women sending back a reply card gave no reason or a reason that did not make clear whether they had an acceptable medical motive not to participate at that moment. Taking into account that laboratory data showed that 87 women had undergone a hysterectomy, it can be calculated that at the moment of assessment 44.6% of the invited population is registered within the project as "protected" against cervical cancer thanks to a recent or regular examination [(10,223 + 4,567 + 937) / (35,951 - 344 - 220 - 87)].

4.1.2. Registered Pap smear reports by age group

The number of women registered with a Pap smear and the number of registered Pap smear reports, both split up by age group of the woman, are presented in table 2. As a reference, the age distribution of the corresponding section of the female population is given. For the

number of registered *women*, the age groups indicate only the age group a woman belonged to at the moment of her *first* registered Pap smear. For the number of *Pap smears*, the age groups indicate the age group a woman belonged to at the moment she had a Pap smear performed. Since only the municipalities of Edegem and Hove invited women from 18-19 years and between 66-70 years, these age groups are treated as separate categories in table 2.

The comparison with the age distribution of the corresponding section of the female population is disadvantageous for the older attenders at the cervical screening programme, especially from 56-60 years on (table 2).

4.2. Screening frequency

In an earlier publication on this project, quantitative and qualitative evaluation showed that overscreening for cervical cancer was not at all exceptional and that it sometimes was very extreme in relation to frequency and age (screening from very low to very high ages, i.e. in women not belonging to the target groups) (16).

4.3. Effect of programme interventions

The effect of the programme interventions (call, reminder and recall) on the response is depicted in figure 1 for the municipality of Edegem. For each quarter (from quarter 1 being October-December 1991 to quarter 17 being October-December 1995), the number of women which had a registered Pap smear performed in that quarter is indicated. In those quarters in which an intervention took place, this is indicated. Figure 1 makes use of the data from cytopathological reports ("cytopathology") and of data from the reply cards ("self report"). Quarter zero consists of women who sent back a reply card and who indicated that they didn't intend to have a Pap smear performed because they had had one performed in the recent past.

4.4. Cytopathological findings

Although 15 laboratories cooperated in the project, out of a total of 16,482 registered smears, 15,679 (95.1%) were processed by only four laboratories. In table 3, an overview is presented of the distribution of Pap smears according to cytopathological result (Pap I, Pap II and > Pap II), for the four laboratories with most registered smears.

TABLE 2

The distributions of registered Pap smear reports and of women with their first registered cytopathological Pap smear report, by age group, compared to the age group distribution of the corresponding section of the female population

Age groups	Registered women: number (%)		Registered Pap smears: number (%)		Distribution of the corresponding section of the female population
18-19 years	145	(1.4%)	186	(1.1%)	1.2%
20-25 years	1,630	(15.9%)	2,303	(14.0%)	11.1%
26-30 years	1,476	(14.4%)	2,209	(13.4%)	11.5%
31-35 years	1,380	(13.5%)	2,250	(13.6%)	13.2%
36-40 years	1,210	(11.8%)	2,143	(13.0%)	12.3%
41-45 years	1,070	(10.5%)	1,825	(11.1%)	11.1%
46-50 years	953	(9.3%)	1,751	(10.6%)	10.3%
51-55 years	814	(8.0%)	1,357	(8.2%)	8.3%
56-60 years	778	(7.6%)	1,292	(7.8%)	9.1%
61-65 years	633	(6.2%)	976	(5.9%)	9.1%
66-70 years	134	(1.3%)	190	(1.1%)	2.7%
Total	10,223	(100.0%)	16,482	(100.0%)	100.0%

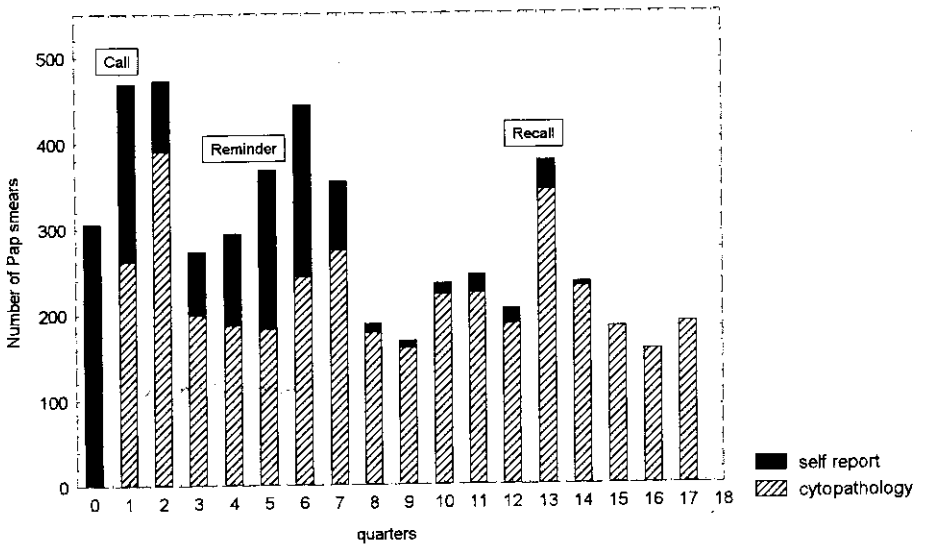

Fig. 1: Number of Pap smears per quarter (laboratory data and self reports) and type of intervention by the screening programme: municipality of Edegem

TABLE 3

Distribution of Pap smears according to cytopathological result, for the four laboratories with most registered smears. In square brackets, the 95% confidence interval for the proportion in question is given. Where it was indicated to do so, the exact limits are calculated (asterisked)

	Laboratory A	Laboratory B	Laboratory C	Laboratory D
Pap I	3,536 (36.9%) [35.9-37.9]	139 (5.1%) [4.3-6.0*]	816 (74.5%) [71.9-77.0]	527 (59.7%) [56.4-62.9]
Pap II	5,934 (61.9%) [60.9-62.9]	2,525 (93.3%) [92.3-94.2*]	269 (24.5%) [22.0-27.1]	348 (39.4%) [36.2-42.6]
>Pap II	115 (1.2%) [0.98-1.4]	43 (1.6%) [1.15-2.1*]	11 (1.0%) [0.51-1.79*]	8 (0.9%) [0.40-1.78*]
Total	9,585 (100.0%)	2,707 (100.0%)	1,096 (100.0%)	883 (100.0%)

4.5. Reduction in the number of invitations thanks to the call recall system

Table 4 shows for the 7 municipalities together the potential reduction in invitations for the recall when use is made of all available data from the pilot project.

For "recent smears" we only included women who had a Pap smear registered which was performed not longer than 2 years ago or who reported on the reply card that they were examined not longer than 2 years ago, counting backwards from the end of the research period (December 31st, 1995). The reply cards also revealed that 937 women were examined regularly. Data about hysterectomy were received both from reply cards (n=344) and laboratories (n=87). There were 10 women who sent back a reply card indicating that they did not ever want to cooperate ("complete refusal").

TABLE 4

Potential reduction in invitations for the first recall for the 7 municipalities together when use is made of all available data from the pilot project

Reason for not inviting	Potential reduction: n (%)	
Recent smear, laboratory data	3,454	(9.6%)
Recent smear, reply card data	950	(2.6%)
Regular examination	937	(2.6%)
Hysterectomy	431	(1.2%)
Complete refusal	10	(0.0%)
Total	5,782	(16.1%)

5. Discussion

Most Flemish women have regular Pap smears, albeit mainly via non-organized screening (17). Organized cervical cancer screening in Flanders never had an attendance rate of over 20% (17). Within the framework of the call recall system in the district of Kontich, almost half the invited women could be registered as having had a recent Pap smear. Never before had there been such a high registered response to a cervical screening programme in Flanders. Not all women in the target age group had to receive an invitation after 3 years ("recall"). By making use of the database of the call recall pilot project, it was for instance possible to trace women who had had a Pap smear performed in the preceding 2 years or who had had a hysterectomy carried out. By not sending these women an (unnecessary) invitation, it was possible to reduce the number of women that had to be invited for the first recall. Although the potential reduction in invitations was not that high when expressed as a percentage (16.1%), yet many thousands of unnecessary invitations for Pap smears could be avoided (n=5,782) (table 4). This potential reduction is considerable, as the registration was incomplete:

- The pilot project was initially only centred on GPs, while 70% of Flemish women have their Pap smears performed by a gynaecologist (17). If a woman went to her gynaecologist following the invitation for a Pap smear, the cytopathological report was in principle not registered. However, some gynaecologists cooperated at their own request, giving their permission to analyse the Pap smear reports, which were then included in the study.

- Neither GPs nor laboratories cooperated 100%. Since a complete Pap smear register is lacking and since patients are not enrolled on the list of a GP in Belgium, it is impossible to know which percentage of cervical smears is covered by the 77.7% of GPs who gave their permission to analyse the Pap smear reports of the women who consulted them. The same holds for the laboratories. Since a GP can have his Pap smears analysed in a laboratory of his own choice, since he can change laboratory or simultaneously make use of two or more laboratories for his analyses, it is impossible to list all laboratories which processed Pap smears of women belonging to the target age group in the district of Kontich. Furthermore, even if a GP gave his permission for a laboratory to release the Pap smear reports of his patients to the project organization of the call recall system, the laboratory could still refuse to cooperate.

There seems to be a clear effect of programme interventions on the response. In those quarters whithin which an intervention took place or following a quarter within which an intervention took place, a clearly higher number of Pap smears could be registered (figure 1). This seems to indicate that a screening programme could make it possible to control the interval between 2 Pap smears for at least a part of the invited group of women.

In 1994, the Flemish minister concerned decided that cervical cancer screening had to be organized on the provincial level. In the course of 1995, the pilot project in the district of Kontich was taken over by the Province of Antwerp. During a short period during the taking over by the Province, data were registered by the Province as well as by the pilot project organization. On December 31st 1995, the data registration by the project organization was concluded for good. Given the positive results of the call recall pilot project in the district of Kontich, the Province of Antwerp decided to use this call recall scheme for the whole of the Province. Of course, the data gathered by the pilot project were put at the disposal of the Province.

Although the overall evaluation of the call recall pilot project in the district of Kontich was a positive one, some problems remained. Considerable effort has been put into the setting up of the call recall data base. An organizational structure had to be worked out within which the different parties (GPs, municipalities, laboratories) were involved. However, the data base never reached completeness: more than 50% of the invited women could not be registered. The data needed for a complete data base are in principle present (with the Sick-funds and with the pathologists), but they are so far not available for a call recall system. A complete Pap smear register is nevertheless a necessity when a call recall system for cervical cancer is to be integrated into the health care system. Such a register can for instance be set up by centralizing the data from all pathologists. A similar system has already proved its efficacy over several years in The Netherlands (19). Since a Working Group concerned with the uniformization of cervical cytology in Flanders has only existed for a few years, a change for the better is to be expected in this area.

There is clearly also a problem with the training of cytopathologists. It is hard to believe that the differences between laboratory cytopathological results (table 3) can be a reflection of the differences in the pathology within the population served by these laboratories. Although there were no marked differences between the laboratories what Pap

smear results higher than II is concerned, for the Pap I results as well as for the Pap II results, there are statistically significant differences between all four the laboratories considered.

Relatively fewer women in the age group 56-60 years and older are registered as participants in the project. Since there is evidence to consider 50 years the end point for cervical screening when 3 previous consecutive Pap smears have shown a negative cytopathological result and when the last Pap smear was performed less than 3 years ago (6), this fact might not be really alarming. Moreover, it could be that correction of the population for hysterectomy makes this underrepresentation smaller or even disappear. Since there is no hysterectomy register available in Flanders and given the very partial character of the data about hysterectomy gathered in our study, it is impossible to answer this question.

On the other hand, a continual overscreening can be observed in younger Flemish women (17) (20). Although most Flemish women think a routine Pap smear should be performed every year (17), there is, under normal conditions, no benefit to be obtained from screening women without any symptoms with a greater frequency than once every 3-5 years (18). In Flanders, however, it is even fairly common for a woman to have a Pap smear every six months, when she receives a prescription for oral contraceptives. For the psychosocial and physical well-being of women participating in screening but also for economic reasons, overscreening is to be avoided as much as possible, especially in these subgroups where the benefits of cervical cancer screening are marginal due to a lower incidence and more spontaneous regression of lesions, i.e. in younger women (1) (10) (21).

To fight the overscreening, a centralized medical patient record administered by the GP and a referral system from the GP to the specialist, are certainly appropriate. Only if the above-mentioned limiting conditions are met, it can be considered to implement a call recall scheme for cervical cancer in the whole of Flanders.

Samenvatting

Doelstelling. Beschrijving van een call recall pilootproject voor baarmoederhalskanker in het kanton Kontich (Vlaanderen/België).

Methoden. Van oktober 1991 tot december 1995 werden 36.000 vrouwen persoonlijk uitgenodigd door de project-organisatie om een uitstrijkje te laten uitvoeren bij hun huis-

arts. De cytopathologische protocollen werden via de laboratoria verzameld. Vrouwen die niet wilden of niet konden deelnemen, werd de mogelijkheid geboden om een antwoordkaartje terug te sturen.

Resultaten. Er waren 10.223 vrouwen waarvan een uitstrijkje werd geregistreerd (28,4% van alle uitgenodigde vrouwen). Nog eens 6.888 vrouwen (19,2%) stuurden een antwoordkaartje terug. Dit betekent dat de totale respons 47,6% bedroeg, het hoogste cijfer dat ooit in een screeningsprogramma voor baarmoederhalskanker in Vlaanderen werd bereikt. Het aantal uitnodigingen voor de recall kon potentieel worden teruggebracht met 16%. Oudere vrouwen, voornamelijk vanaf 56-60 jaar, zijn relatief minder geregistreerd als deelneemsters aan het project. Anderzijds kon bij jongere vrouwen overscreening worden vastgesteld. Het percentage van vrouwen waarvoor epitheliale veranderingen werden geprotocolleerd, varieert tussen 0,9% en 1,6%, afhankelijk van het laboratorium.

Discussie. Gezien de positieve resultaten van het call recall pilootproject in het kanton Kontich, lijkt implementatie van dit call recall systeem in Vlaanderen gerechtvaardigd. Nochtans is er nog heel wat werk te doen aangezien aan een aantal noodzakelijke voorwaarden om een screeningsprogramma efficiënt uit te voeren tot op heden niet is tegemoetgekomen: een volledig uitstrijkjesregister, een uniforme opleiding van cytopathologen, een centraal medisch patiëntendossier dat wordt beheerd door de huisarts en een doorverwijzingssysteem van de huisarts naar de specialist.

Résumé

But. Description d'un projet pilote "call-recall" pour le dépistage du cancer du col de l'utérus dans le canton de Kontich (Flandre/Belgique).

Méthodes. Entre octobre 1991 et décembre 1995, 36.000 femmes ont reçu une lettre de l'organisation du projet les invitant à faire réaliser un frottis cervical par leur médecin généraliste. Les protocoles cytopathologiques des frottis ont été envoyés par les laboratoires au projet. Les femmes qui ne voulaient ou ne pouvaient pas participer, ont eu la possibilité de renvoyer une carte réponse.

Résultats. Dix mille deux cent vingt trois femmes (10.223) ont fait réaliser un frottis qui pouvait être enregistré (28,4%) et 6.888 femmes (19,2%) ont envoyé une carte réponse. Ainsi, la réponse globale fût de 47,6%, un chiffre jamais atteint en Flandre pour le dépistage du cancer du col de l'utérus. Le nombre d'invitations pour le rappel a pu être réduit d'au moins 16% grâce à la banque de données du projet. Les femmes d'un certain age, particulièrement à partir de 56-60 ans, participent relativement moins fréquemment. D'autre part, un surdépistage des femmes plus jeunes a pu être établi.

Le pourcentage de femmes pour lesquelles le protocole mentionne des modifications epithéliales, varie de 0,9% à 1,6% selon le laboratoire.

Discussion. Etant donné les bons résultats du projet pilote "call-recall" pour le dépistage du cancer du col de l'utérus dans le canton de Kontich, l'organisation de ce système en Flandre semble justifié. Néanmoins, il y a encore beaucoup de travail à faire. Certaines conditions nécessaires pour un dépistage efficace ne sont pas encore remplies:

un registre complet des frottis, une formation uniforme des cytopathologistes, un dossier médical de la patiente centralisé chez son médecin de famille et dont elle/lui a la gestion, et enfin un système de renvoi du médecin de famille au spécialiste.

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