# Adherence to cancer screenings: is the telephone survey a good method of investigation? 

CUCCHI A ${ }^{1}$, BERGAMINI M ${ }^{1}$<br>${ }^{1}$ Department of Clinical and Experimental Medicine, Section of Hygiene and Occupational Medicine, University of Ferrara, Italy

Corresponding Author
Dr. Alessandro Cucchi
Via F.to di Mortara 64b
44100 Ferrara (FE) Italy
Email: ccclsn@unife.it


#### Abstract

INTRODUCTION - In order to define subjective variables, the methodology on the assessment of the women participation to screening programs to prevent cervical cancer is presented. MATERIALS AND METHODS - The study was conducted using a structured questionnaire administered by telephone to a sample of women invited to screening, regardless of theyr real participation to the Pap test. The phone calls were made within 2 days prior to the Pap test session. The questionnaire contained 12 closed questions.

RESULTS - We contacted a total of 1206 women: a total of 1100 women ( $93.70 \%$ ) received the invitation letter and answered to the questionnaire. CONCLUSIONS - The chosen procedure obtained a high percentage of women who agreed to be interviewed.


## INTRODUCTION

It's estimated that the evaluation and the understanding of the subjective variables can lead to increased adherence to screening programmes $[1,2,3,4,5]$. In order to implement a research study to define subjective variables, the Branch of Hygiene and Occupational Medicine, Department of Clinical and Experimental Medicine, University of Ferrara, had collaboration with the Local Health Care Unit (AUSL) of Ferrara to assess participation of women to screening programmes to prevent cervical cancer. The present article illustrates the adopted methodology.

## MATERIALS AND METHODS

The study was conducted using a structured questionnaire administered by telephone to a sample of women invited to screening, regardless of real participation to the Pap test. The considered population concerned the women invited by the screening centres of the AUSL of Ferrara. An informative personal letter on the possibility of being chosen to participate in the study has been sent together with the letter of invitation to the Pap test. Subsequently, We a randomly selected sample of women to be contacted throughout the telephone lists obtained by AUSL was enlisted.

The telephone interview began with the presentation of credentials of the interviewer (Hygiene Medical Specialist), with specific reference to the letter of invitation, followed by a description of research. It was stressed that it was possible clearly identify the caller and request information via toll-free number. The fact that participation was anonymous and free had been guaranteed. The phone calls were made within 2 days prior to the Pap test session. After an adequate training of interviewers and the standardization of procedures for conducting the interview a pilot study was conducted among a sample of 100 women. The questionnaire concerned 12 closed questions to complete in an estimated time of less than 5 minutes. It was divided into a common section and two subsequent sections: one for the women participating in the AUSL programme, one for women who went to other centres or decided not to undergo the pap-test. Data from each questionnaire were recorded in a MS Access database.

## RESULTS

We contacted a total of 1206 women (Table 1): 32 of these ( $2.65 \%$ ) did not receive the invitation letter and in these cases the interview was interrupted. Because a number of 74 of the remaining 1174 women $(6.30 \%)$ refused the interview, a total of 1100 women $(93.70 \%)$ received the invitation letter and answered to the questionnaire. About $50 \%$ of women who were not willing to be interviewed were younger than 40 years (Table 2). This finding suggested that young women of the studied population sample were reluctant to be interviewed.

## CONCLUSIONS

We considered particularly useful the chosen procedure of administering a structured questionnaire by phoneon the basis of the high percentage of women who agreed to be interviewed. We can say that the use of a telephone questionnaire may be as a feasible and generally this method seems to be the best choice in epidemiological studies. These considerations assume greater significance because the interview was carried out in advance the effectuation of the Pap test, and the fact that women who had already decided not to participate in the AUSL screening programmes welcomed the here illustrated approach increasing their attitudes to participation.

1) Smith-McLallen A, Fishbein M. Predicting intentions to engage in cancer prevention and detection behaviors: examining differences between Black and White adults. Psychol Health Med. 2009 Mar;14(2):180-9.
2) Domati F, Travlos E, Cirilli C, Rossi G, Benatti P, Marino M et al. Attitude of the Italian general population towards prevention and screening of the most common tumors, with special emphasis on colorectal malignancies. Intern Emerg Med. 2008 Sep 20. [Epub ahead of print]
3) Leyva M, Byrd T, Tarwater P. Attitudes towards cervical cancer screening: a study of beliefs among women in Mexico. Californian J Health Promot. 2006, 4(2): 13-24
4) Thurman N, Ragin C, Heron DE, Alford RJ, Andraos-Selim C, Bondzi C et al. Comparison of knowledge and attitudes toward cancer among African Americans. Infect Agent Cancer. 2009 Feb 10;4 Suppl 1:S15.
5) Barroso García P, Ruiz Pérez I, de Rojas FP, Parrón Carreño T, Corpas Nogales E. Factores relacionados con la no participación en el programa de detección precoz de cáncer de mama [Factors related to non-participation in a breast cancer early detection program]. Gac Sanit. 2009 Jan-Feb;23(1):44-8. Epub 2009 Jan 9.

| Table 1-Contacted women |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total |  |  | Invitation received | Invitation not <br> received |  |
|  | $\mathrm{N}^{\circ}$ | $\%$ | $\mathrm{~N}^{\circ}$ | $\%$ | $\mathrm{~N}^{\circ}$ | $\%$ |
| Interview accepted | 1132 | 93.86 | 1100 | 91.21 | 32 | 2.65 |
| Interview refused | 74 | 6.14 |  |  |  |  |
| Total | 1206 | 100.00 |  |  |  |  |


| Table 2 - Division by age classes of contacted women |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 25-29 yrs | 30-34 yrs | 35-39 yrs |  | 40-44 yrs |  | 45-49 yrs |  | 50-54 yrs |  | 55-59 yrs |  | 60-65 yrs |  |
|  | $\mathrm{N}^{\circ}$ \% | $\mathrm{N}^{\circ}$ \% | $\mathrm{N}^{\circ}$ | \% | $\mathrm{N}^{\circ}$ | \% |  | \% |  | \% | $\mathrm{N}^{\circ}$ | \% | $\mathrm{N}^{\circ}$ | \% |
| Interview accepted | $17 \quad 1.50$ | 20618.20 | 246 | 21.73 | 161 | 14.22 | 94 | 8.30 | 104 | 9.19 | 126 | 11.13 | 178 | 15.73 |
| Interview refused | $4 \quad 5.41$ | $\begin{array}{lll}12 & 16.22\end{array}$ | 20 | 27.03 | 10 | 13.51 |  | 12.16 | 3 | 4.05 | 8 | 10.81 | 8 | 10.81 |
| Total | $21 \quad 1.74$ | $218 \quad 18.08$ | 266 | 22.06 | 171 | 14.18 | 103 | 8.54 | 107 | 8.87 | 134 | 11.11 | 186 | 15.42 |

