

Cancer screening in France: subjects' and physicians' attitudes

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Abstract

Objective Since screening for cancer has been advocated, funded, and promoted in France, it is important to evaluate the attitudes of subjects in the general population and general practitioners (GPs) toward cancer screening strategies.

Methods EDIFICE is a nationwide opinion poll that was carried out by telephone among a representative sample of 1,504 subjects living in France and aged between 40 and 75 years and among a representative sample of 600 GPs.

The questionnaire administered to subjects queried about previous screening for cancer.

Results Ninety-three percent of women stated that they had undergone at least one mammography. Although rated “A” recommendation—strongly recommended—by the US Preventive Services Task Force, screening for colorectal cancer received less attention than prostate cancer screening which is rated “I”—insufficient evidence—(reported screening rates of 25% and 36%, respectively). Six percent of subjects stated that they had undergone lung

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cancer screening. GPs' attitudes toward cancer screening showed similar inconsistencies.

Conclusions It thus appears that understanding of cancer screening practices in the French general population does not match scientific evidence. To a lesser extent, this also holds for GPs.

Keywords Mass-screening · Compliance · Health care opinion poll · Health services research · Health services misuse

Introduction

Early detection of cancer can theoretically prolong overall survival of the screened subjects. Reductions in cancer-related mortality have been demonstrated for mammography for breast cancer (BC) and fecal occult blood test (FOBT) for colorectal cancer (CRC) [1, 2]. For these two cancers, mass-screening programs are implemented in France, in which targeted subjects are contacted by mail. The US Preventive Services Task Force guidelines rate CRC screening as "A" (strongly recommended), BC screening as "B" (recommended), and both prostate cancer (PC) and lung cancer (LC) screenings as "I" (evidence insufficient to come down in favor or against screening) [3]. The objectives of the nationwide EDIFICE opinion poll carried out in France were to collect data at the national level (the level of funding) about (1) subjects' individual access to cancer screening procedures (through organized programs or on subjects' own initiative) and (2) about general practitioners' (GPs) attitudes toward cancer screening. Four frequent cancer types were selected on the grounds of their different screening statuses: BC and CRC for evidence of efficacy of screening and existence of a national screening program and prostate and lung cancers for neither evidence of efficacy of screening nor official screening program.

Methods

General population opinion poll

The population-based EDIFICE opinion poll was carried out by telephone from 18 January to 2 February, 2005 among a representative sample of 1,504 subjects living in France and between 40 and 75 years old (1,609 subjects minus 105 who had already been affected by cancer). Sample representativeness was assessed, in relation to the statistics of the French Employment Survey in year 2002 [4], based on the following criteria: sex, age (five categories), profession (eight categories), community size (five categories), and regional distribution (nine categories).

General practitioner opinion poll

A nationwide opinion poll was carried out by telephone from 31 January to 18 February, 2005 among a representative sample of 600 GPs practicing in France. Sample representativeness was assessed based on the following criteria: age (four categories) and regional distribution (five categories).

Results

The main results of EDIFICE opinion poll are summarized in Fig. 1. Almost all (93%) interviewed women stated that they had undergone at least one mammography. In contrast, 25%, 36%, and 6% of the interviewed subjects stated that they had undergone screening tests for CRC, PC, and LC, respectively.

The corresponding percentages of GPs who stated that they recommended cancer screening tests to their patients were consistent with the proportions of subjects who had undergone screening tests for each tumor type: 68%, 18%, 58%, and 4% of the interviewed GPs stated that they systematically recommended screening for BC, CRC, PC and LC, respectively.

Reasons given to explain why screening tests had not been performed

Physicians and subjects provided contrasting answers as to why cancer-screening tests had not been performed.

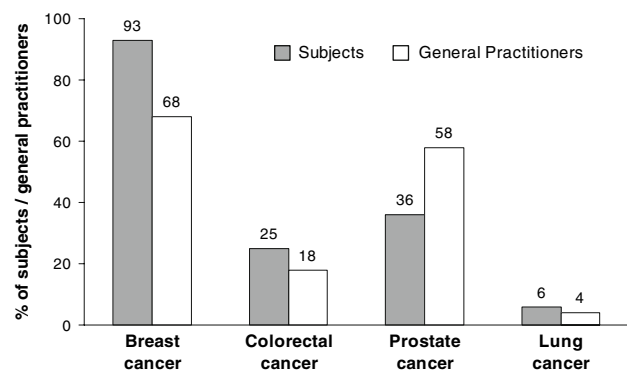


Fig. 1 Adherence to cancer screening strategies according to the French nationwide EDIFICE opinion poll (1,504 subjects, 600 general practitioners). In France, there are organized mass-screening programs for breast cancer by mammography (100% of the population covered at the time of the opinion poll) and for colorectal cancer using Hemoccult (almost 30% of the population covered). In contrast, there is no mass-screening program for prostate cancer and lung cancer. For subjects in the general population, figures indicate the rates of subjects stating that they had undergone at least one screening test. For general practitioners, figures indicate the rates of general practitioners stating that they systematically recommended cancer screening

Physicians mainly focused on subjects' fears while subjects denied this reason. Fear of results was cited by 44% of physicians as the main explanation why subjects did not undergo BC screening tests versus only 18% of subjects. For CRC screening, the figures were 16% and 3%, respectively. The corresponding odds ratios for fear being elicited by subjects versus GPs as the reason for not undergoing BC or CRC screening tests were 0.29 and 0.15, respectively (Table 1). Furthermore, subjects focused on a lack of advice on cancer screening from their physicians whereas GPs rarely did so. Lack of advice from the physicians was cited by 11% of subjects as the main explicative factor for subjects not undergoing BC screening tests versus only 1% of GPs. For CRC screening, the figures were 16% and 9%, respectively. The corresponding odds ratios for lack of medical advice being elicited by subjects versus GPs as the reason for subjects not undergoing BC or CRC screening tests were 11.65 and 1.93, respectively (Table 1).

Discussion

In the present study, we describe the adherence to different screening programs for four types of cancers (BC, CRC, PC, and LC) in France. It is important to point out that this opinion poll does not report an accurate incidence of subjects actually screened for cancer but indeed the proportion of subjects stating that they had undergone at least one screening test. It is also worth mentioning that the French national health insurance system currently makes the corresponding screening tests (FOBT, mammography, prostate specific antigen—PSA—testing and X-ray) available for free (or almost free) to all affiliates.

The major finding of this report is the obvious disagreement between evidence-based official recommendations and actual practice is both subjects in the general population and GPs in France. Despite a high level of evidence of reduction in cancer-related mortality of similar magnitude (~15–20%) with both BC and CRC mass-screenings [1, 2], 93% of

women undergo mammography screening whereas only 25% of subjects in the same age range have access to CRC screening tools. In contrast, 36% of men aged between 50 and 74 years have undergone a screening test for PC (mainly PSA testing) even though the benefit of PC screening remains unknown [5].

EDIFICE showed, on the one hand, two “rational rates” of screening—high rate of women having undergone mammography and low rate of subjects having performed LC screening—and, on the other hand, two “inadequate rates” of screening—abnormally low rate of CRC screening (nationwide coverage by the on-going program is expected by the end of 2007) and abnormally high rate of PC screening. Even more striking, the French GPs' behavioral pattern of recommending individual cancer screening exhibited the same inconsistencies.

Three reasons can be suggested to explain the observed relationships between subjects' and GPs' behaviors. First, subjects in the general population may be influenced by medical counseling. Alternatively, physicians may endorse their patients' views and agree “under pressure” [6]. Lastly, both subjects and GPs are exposed to similar not evidence-supported recommendations/information, with the “magic touch” of blood analysis for PC screening being attractive to them. Appropriate information of subjects and physicians, including the possible benefits and risks of PC screening through PSA testing, could make these erroneous behaviors less frequent [7].

Whereas GPs' and subjects' statements in EDIFICE appeared in rather good agreement with respect to the proportions of interviewed subjects having undergone cancer screening tests and of GPs recommending cancer screening to their patients, the reasons put forward why screening tests were not performed are different, indeed even opposite: based on their statements, GPs overestimated the negative impact of fear of the results on subjects' participation in cancer screening and they underestimated their own role. Nevertheless, both GPs and subjects interestingly seem to attach a more dreadful meaning to the

Table 1 Reasons cited by subjects in the general population and general practitioners why subjects did not undergo screening tests for breast cancer (BC) or colorectal cancer (CRC)

Reasons cited	For not undergoing BC screening tests		For not undergoing CRC screening tests	
	Female subjects <i>N</i> = 38	General practitioners <i>N</i> = 600	Subjects <i>N</i> = 725	General practitioners <i>N</i> = 600
Subjects fearing the result <i>n</i> (%)	7 (18)	264 (44)	20 (3)	96 (16)
OR (CI _{95%})	0.29 (0.12–0.66)		0.15 (0.09–0.24)	
Lack of physician's advice <i>n</i> (%)	4 (11)	6 (1)	116 (16)	54 (9)
OR (CI _{95%})	11.65 (3.14–43.23)		1.93 (1.37–2.71)	

OR indicates odds ratio; CI_{95%} indicates confidence interval at the risk α = 0.05

result of BC screening than to the result of CRC screening. Indeed, fear of the result acting as a check upon carrying out cancer screening tests was cited by 18% of the subjects for BC screening whereas only 3% cited this reason for not undergoing CRC screening tests. Comparatively, 44% and 16% of GPs cited fear of the result as the reason for subjects not undergoing BC and CRC screening tests, respectively.

It thus appears that there is a need for more research in social science as well as in biology and public health to improve the effectiveness of cancer screening in the framework of a national health system.

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