Brief Original Report

Characteristics of French people using organised colorectal cancer screening. Analysis of the 2010 French Health, Healthcare and Insurance Survey

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ABSTRACT

Objective. To analyse relationships between socio-demographic characteristics, healthcare access, and behaviour with regard to participation in organised colorectal cancer (CRC) screening.

Methods. We analysed a subset of 2,276 individuals from a cross-sectional population-based survey of French households in 2010. The outcome was participation in CRC screening using multiple logistic regression. The studied variables included socio-demographic characteristics, healthcare access-related variables, and health or perceived health.

Results. Age, living in a pilot district for CRC screening, and having a private additional insurance were associated with participation in CRC screening for both genders. In men, other characteristics were associated: not having 100% coverage for medical fees for a long-term disease, having consulted a medical specialist in the last 12 months, and not smoking. In women, other cancer screening behaviours were associated with participation in CRC screening. Results also showed that 81.4% of individuals, who did not have a Hemoccult® test, consulted a GP in the last 12 months.

Conclusions. Despite efforts made, results confirmed that CRC screening differed among socioeconomic groups. GPs should be encouraged to systematically recommend CRC screening to their patients fitting the criteria of the organised CRC screening programme and further investigation is required to optimise information strategies targeting GPs.

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Introduction

In France, a population-based colorectal cancer (CRC) screening programme was introduced in 23 pilot districts in 2002 and was extended nationwide in 2008–2009. It relies on a biennial proposal of a guaiac Faecal Occult Blood test (gFOBt) to individuals aged 50–74 years. Participation in this programme remains low (34.3% in 2008–2009 and 32.1% in 2010–2011, according to the French Institute for Public Health Surveillance), below the acceptable participation rate of 45% recommended to keep the programme cost-effective (European Commission, 2010).

The low French participation rate highlights the need to identify predictors of screening participation, in order to promote screening behaviours in targeted populations. Therefore, we analysed a subset of a population-based cross-sectional survey, the "2010 French Health, Healthcare and Insurance Survey," called the 2010-ESPS, to investigate the relationships between socio-demographic characteristics, healthcare access, and behaviour, with regard to participation in CRC screening.

Methods

The 2010-ESPS survey, conducted by the Institute for Research and Information in Health Economics, is drawn from a permanent representative sample of the population protected by the French Health Insurance (Dourgnon et al., 2012). This survey included a panel dataset of 8,305 households that accounted for 22,850 individuals. Among them, 15,157 (66.3%) returned a valid self-administered questionnaire. We kept only those aged 50–74 years who lived in one of the 46 districts that had completed a 2-year CRC screening campaign by 2009 (*n* = 3,603). We further excluded individuals who did not answer the question about CRC screening (*n* = 1,305) or with a personal history of CRC (*n* = 22).

Appropriate calibrated weights, provided by the National Institute of Statistics and Economic Studies, were used to adjust for unequal probability of inclusion and non-response. Models were systematically adjusted on age categories and survey waves spread within one year (autumn and spring). Covariates with *P*-value < 0.10 after univariate analysis were entered into a multivariate model fitted by a logistic regression. *P*-values < 0.05 were considered statistically significant. Missing values were considered as a class when they accounted for ≥ 5% of the group size, otherwise excluded. Statistical analyses were performed using SAS EG v4.3.

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Table 1
Gender-specific odds-ratios (and confidence intervals) of participation in colorectal cancer screening estimated by univariate[a] regression on socio-demographic status, healthcare access, health and perceived health, for significant covariates only (P-value < 0.10), in the French Health, Healthcare and Insurance Survey, 2010.

	Male		Female	
	$n = 546/N = 1,082$	OR (95%-CI)	$n = 633/N = 1,194$	OR (95%-CI)
Age-categories[b] (years)				
50–54	96/280	Ref.	118/325	Ref.
55–59	120/272	1.36 (0.92–2.00)	152/294	1.91 (1.32–2.76)
60–64	135/232	2.52 (1.68–3.76)	152/264	2.51 (1.72–3.65)
65–69	117/168	3.72 (2.36–5.87)	114/161	4.48 (2.83–7.07)
70–74	78/130	2.43 (1.52–3.90)	97/150	3.21 (2.05–5.03)
Socio-demographic status				
Current or last occupation				
Blue-collar workers	171/393	Ref.	Not significant	
Farmers, self-employed	81/163	1.17 (0.67–2.02)		
Clerks, service and sales workers	40/79	1.12 (0.73–1.71)		
Intermediate white-collar workers, managers	251/439	1.59 (1.16–2.19)		
Missing	3/8	–		
Districts with colorectal cancer screening programme				
Other districts	230/516	Ref.	275/569	Ref.
Pilot districts	315/560	1.62 (1.23–2.14)	353/618	1.67 (1.28–2.19)
Missing	1/6	–	5/7	–
Healthcare renouncement				
Healthcare renouncement for financial reasons	36/93	Ref.	74/158	Ref.
Healthcare renouncement for other reasons	20/47	1.20 (0.50–2.89)	23/57	0.91 (0.43–1.95)
No healthcare renouncement	483/932	1.76 (1.05–2.98)	531/971	1.56 (1.04–2.33)
Missing	7/10	–	5/8	–
Highest educational level reached[b]				
Never went to school	64/167	Ref.	Not significant	
General elementary school or less	126/225	2.15 (1.32–3.50)		
Vocational education	182/350	2.25 (1.44–3.52)		
High school	57/118	1.86 (1.10–3.25)		
Higher education	117/222	2.38 (1.45–3.91)		
Living in rented accommodation				
Yes	80/215	Ref.	123/281	Ref.
No	466/866	1.78 (1.22–5.29)	510/913	1.61 (1.17–2.22)
Missing	0/1	–	0/0	–
Monthly household income per consumer unit[c]				
<€876	55/152	Ref.	76/177	Ref.
€876–€1200	66/154	0.98 (0.57–1.66)	111/207	1.40 (0.86–2.26)
>€1200	325/582	1.88 (1.20–2.93)	328/602	1.75 (1.18–2.59)
Missing	100/194	1.68 (1.01–2.79)	118/208	1.70 (1.06–2.72)
Healthcare access				
Benefiting CMUc[d]				
Yes	15/61	Ref.	33/86	Ref.
No	528/1,017	4.15 (2.13–8.08)	597/1,104	1.57 (0.92–2.66)
Missing	3/4	–	3/4	–
Having a private additional health insurance				
No	23/98	Ref.	45/118	Ref.
Yes	520/978	6.48 (3.70–11.35)	587/1,073	2.36 (1.41–3.95)
Missing	3/6	–	1/3	–
Having consulted a medical specialist in the last 12 months				
No	181/423	Ref.	149/315	Ref.
Yes	347/596	1.75 (1.31–2.34)	455/812	1.48 (1.09–1.99)
Missing	18/63	0.54 (0.30–0.98)	29/67	0.86 (0.48–1.56)
Health and perceived health				
100% coverage for medical fees for a long-term disease[b]				
Yes	158/313	Ref.	Not significant	
No	388/769	1.36 (0.99–1.87)		
Alcohol consumption				
High consumption	Not significant		95/162	Ref.
Low consumption			342/637	1.10 (0.73–1.66)
No consumption			168/349	0.71 (0.46–1.11)
Missing			28/46	–
Having had a mammogram				
Never or more than 2 years ago	Not concerned		94/311	Ref.
2 years ago or less			526/858	3.78 (2.72–5.27)
Missing			13/25	–
Having had a Pap smear				
Never or more than 3 years ago	Not concerned		209/481	Ref.
3 years ago or less			398/668	2.25 (1.69–3.00)
Missing			26/45	–
Self-reported dental status				
Poor or very poor	73/175	Ref.	84/194	Ref.
Fair	197/383	1.55 (1.01–2.40)	260/449	1.95 (1.29–2.93)
Very good or good	266/503	1.62 (1.07–2.47)	275/528	1.58 (1.01–2.37)
Missing	10/21	–	14/23	–