



HAL
open science

Impact on the general public of media campaigns against AIDS: a French evaluation

W Dab, H Loundou, P. Quenel, N Beltzer, A Anes, M Pollak, Jean-Paul
Moatti

► **To cite this version:**

W Dab, H Loundou, P. Quenel, N Beltzer, A Anes, et al.. Impact on the general public of media campaigns against AIDS: a French evaluation. *Health Policy*, 1992, 21, pp.233-247. hal-04860191

HAL Id: hal-04860191

<https://hal.univ-reunion.fr/hal-04860191v1>

Submitted on 31 Dec 2024

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

HPE 00479

Impact on the general public of media campaigns against AIDS: A French evaluation

J.P. Moatti^a, W. Dab^b, H. Loundou^a, P. Quenel^{c,d}, N. Beltzer^d,
A. Anes^e and M. Pollak^f

^aINSERM Research Unit 240 on Risk Assessment and Evaluation of Prevention, Paris, France, ^bNational School of Public Health, Paris, France, ^cRegional Center for Disease Control for Paris, Paris, France, ^dINSERM Research Unit 88 on Public Health and Social Epidemiology, Paris, France, ^eRegional Center for Disease Control for South-Eastern France, and ^fCNRS Research Unit on Political and Moral Sociology, Paris, France

Accepted 15 February 1992

Summary

The article presents the results of the first national survey in a representative sample of the French population of 18 years of age and over ($n = 1000$; March 1990) about knowledge, attitudes, beliefs and practices toward HIV infection. It focuses on the impact of the media campaigns about AIDS and condom promotion that were initiated since April 1987 by French public health authorities. A total of 53.2% of respondents were able to correctly quote at least one of the slogans of the campaigns and 48.4% felt they have been personally influenced by the campaigns. Respectively 25.4%, 12.1%, and 11.2% declared that the campaigns have made them more concerned of individual risk of HIV infection and prompted them to condom use and HIV testing. Among heterosexually active respondents, 16.9% declared condom use in the past 12 months, age, marital status, level of education, HIV testing and self-acknowledgement of influence of campaigns being the main factors related to condom use in multidimensional analysis. Respondents who recognise having been influenced by campaigns are less likely to believe in HIV transmission through casual contact and to express discriminatory attitudes toward HIV carriers but more likely to support HIV mandatory screening for the general population. The difficulties to properly evaluate media campaigns for AIDS prevention are discussed as well as the complex trade-offs that general public information has to face between promotion of both individual behavioural change and societal support and empathy for HIV carriers and persons with AIDS.

Address for correspondence: J.P. Moatti, Ph.D., INSERM Research Unit 357 on Health Economics Research, Hôpital de Bicêtre (salle Déjerine) 78, rue du Général Leclerc 94275 Le Kremlin Bicêtre Cedex, France

Introduction

France has the highest cumulative total number of AIDS cases in Europe (14, 422 registered cases on December 31, 1990) as well as the highest annual incidence rate (63.8 per million in 1990) [1]. Since April 1987, French public authorities have initiated media information campaigns against AIDS (Table 1). In February 1989, following the conclusions of a public health expert [2], the French government created new institutions in order to strengthen the action against the epidemic: the 'Conseil National du Sida' (CNS-National Board of AIDS) an expert advisory board designated to discuss societal and ethical issues, the 'Agence Nationale de Recherches sur le SIDA' (ANRS-French Agency for Research on AIDS) and the 'Agence Française de Lutte contre le SIDA' (AFLS-French Agency for the Fight Against AIDS) which is in charge of preventive activities including publicly sponsored national media campaigns.

The explicit goals of French national media campaigns are 2-fold: to maintain awareness of the risks of HIV transmission in order to facilitate adoption and maintenance of individual preventive behaviours on the one hand, to promote solidarity and tolerance in order to prepare society to welcome and take care of a growing number of people who are HIV positive or who have AIDS on the other hand [3].

Although some small scale pre-testing of messages as well as measures of retention of AIDS prevention messages in the general public were regularly performed, using marketing techniques, no formal assessment of the impact of these national campaigns has been implemented until March 1990. At this time, AFLS, ANRS and CFES (French Committee on Health Education) jointly supported the first survey on knowledge, attitudes, beliefs and practices toward HIV infection in a representative sample of the French general population. Specific questions dealing with recall of messages and opinions about the campaigns were included.

This article presents the main results from this KABP survey concerning the impact of national campaigns about AIDS and condom promotion on several outcomes of interest: knowledge and beliefs about AIDS; risk awareness; actual high-risk and protective behaviours; attitudes toward HIV carriers and persons with AIDS and opinions about preventive policies. It attempts to draw some general conclusions from this French experience about the role of public media campaigns in AIDS prevention as well as to discuss the inherent difficulties in evaluating them.

Table 1
French general public information campaigns (1987 to March 1990)

Date	Campaign messages	Media	Budget (in million French Francs)	Style and tone
1987 April–May	'Le Sida il ne passera pas par moi' ('No one is immune from Aids')	All TV channels 300 Radio stations 13 Million leaflets Minitel (home videotext network)		
1987 July–August	Idem	Street posters Ads in regional daily papers		
1987 October–November	Idem	All TV channels Ads in 700 movie theatres	20.5	Light
1988 November–December	'Le préservatif préserve de tout, même du ridicule' ('Condoms protect you from everything, even from being laughed at')	All TV channels Ads in 500 movie theatres 3.5 Million leaflets	6.8	Light
1989 April–May	'Le préservatif préserve de tout, de tout sauf de l'amour' ('Condoms protect you from everything but love')	All TV channels National press Free distribution of 1 250 000 condoms		
1989 December	Idem	All TV channels Ads in 500 movie theatres		
1990 January	Idem	All TV channels	13.6	Erotic, life-enhancing
1989 June	'Le Sida, chacun de nous peut le rencontrer' ('Everyone can be affected by AIDS')	All TV channels AIDS telephone hotline Leaflets for health professionals		
1989 November	Idem	All TV channels	23.0	Serious, emotive
1989 July–August	'Les préservatifs vous souhaitent de bonnes vacances' ('Condoms wish you a happy holiday')	Ads in 1400 movie theatres Radio stations	11.8	Light, romantic, whimsical

Materials and Methods

Sampling

A representative sample of the French population of 18 years of age and over ($n=1000$) was selected through a conventional quota sampling methodology for age, sex and occupational status with stratification for the size of town. Respondents were interviewed face to face at home by trained interviewers. Besides detailed data collection of socio-demographic characteristics of respondents, the questionnaires included 64 questions about knowledge and beliefs about HIV transmission, attitudes toward HIV carriers and AIDS patients, and opinions about preventive policies.

Questionnaire

Five of these questions were dealing with the perception of national media campaigns. A first question (6 items) asked respondents if they remembered having seen or read some of the material used in AIDS or condom promotion campaigns (TV ads, ads at movie theatres, ads in newspapers, leaflets, street posters). Respondents were then asked to spontaneously quote as many of the straplines used by the campaigns (see Table 1) they could recall. Two questions, using 5-point Likert scale asked respondents to express judgments about the impact of campaigns at society's and at the individual levels (9 items such as 'Do you think AIDS information campaigns have improved knowledge about the disease and its transmission?'; 6 items such as 'Do you think campaigns have personally prompted you to use condoms'). A last question used a three point scale to ask respondents if they have felt (not at all, rather or very much) personally concerned by the campaigns.

At the end of the interview, a questionnaire in written form, including 32 questions about sexual and HIV testing practices and condom use, was answered by the individual anonymously from the interviewer: answer rate has been high (94.7%). Among these 947 respondents, 83.5% ($n = 791$) declared having had heterosexual intercourse during the past 12 months, with 13.3% ($n = 105$) declaring more than one single sexual partner.

Statistical analysis

Univariate statistical analysis between answers about campaigns and characteristics of respondents as well as knowledge, attitudes or reported behaviours was performed using chi-square statistics. All results presented below are significant at least at $p < 0.05$ level (unless otherwise specified). Weighted Pearson product-moment correlation coefficients between items dealing with respondents' judgments about the collective and individual impact of campaigns were computed (due to the ordinal nature of the scales,

Spearman correlation coefficients were also produced but overall results and conclusions were identical). In order to specify the relations between campaigns and reported preventive behaviour, multiple logistic regression analysis was applied in the subsample of heterosexually active respondents ($n = 791$) with condom use as the dependent variable. All variables significantly related to condom use in univariate statistics were introduced in the model, including respondent's answer to the item about influence of campaigns about their personal use of condoms. In order to analyse relations between judgments about impact of campaigns and beliefs about HIV transmission, expressed attitudes toward HIV carriers and opinions about AIDS preventive policies, adjusted odds ratios were calculated.

Results

Not surprisingly, the media campaigns about condom and AIDS have been able to reach a very large proportion of French general population. Nearly all respondents (91.9%) recalled having seen TV ads about condoms, 71.0% TV ads about AIDS, 18.6% ads in movie theatres; 49.8%, 48.6% and 45.1%, respectively, recalled having read leaflets, ads in newspapers or seen street posters issued by the AIDS or condom campaigns. A total of 38.6% were able to correctly quote at least one of the slogans used in the AIDS campaigns, and 33.2% one of the slogans of the condom campaigns: slogans from the earliest AIDS campaign ('No one is immune from AIDS') and the latest condom campaign ('Condom can protect you from everything but love') were the most frequently quoted (37.9% and 27.0%). Respondents who recall personal exposure to some of the material used by campaigns are always more likely to be able to quote one of the slogans: for example, respectively 47.5% and 38.1% of respondents who recall having seen street posters are able to quote one of the slogans about AIDS and one about condoms versus only 31.5% and 26.0% among those who don't.

While 51.3% denied having felt personally influenced by either AIDS or condom campaigns, 37.2% felt rather influenced and 11.2% very much influenced. Socio-demographic characteristics of respondents are strongly related with their degree of recall of materials of campaigns, degree of concern and self-acknowledgement of some impact of campaigns on their own attitudes and behaviours. Younger, most educated and single respondents are more likely to have been exposed to messages of campaigns and to acknowledge some positive impact of campaigns on their personal attitudes and behaviours (Table 2).

Respondents who express trust in information about AIDS coming from the Ministry of Health (52.1%) declare more frequently than the rest of the sample that they have felt personally influenced by the campaigns (58.9% vs 45.6%), that campaigns have improved knowledge about AIDS (70.6% vs 60.9%) and that they have made them feel closer to AIDS patients (39.3% vs 21.5%). A

Table 2

Cross-rate tabulations between socio-demographic characteristics of respondents and judgements toward AIDS and condom campaigns

Characteristics of respondents	% of respondents who:				
	'feel rather or very much influenced'	'quote one of the slogans'	'feel more concerned by individual dual risk of HIV infection'	'felt prompted to condom use'	'felt prompted to HIV testing'
<i>Age (yrs)</i>					
18-24 (n=150)	66.0	75.3	41.3	29.3	20.0
25-34 (n=219)	61.6	64.8	31.1	16.0	19.1
35-49 (n=256)	52.7	53.9	24.6	10.2	11.3
> or = 50 (n=375)	31.5	37.1	16.3	4.3	2.9
<i>Marital status</i>					
Singles* (n=299)	66.1	67.8	33.2	35.0	18.0
Married or as married (n=701)	44.8	50.1	22.0	7.0	8.8
<i>Level of education</i>					
Secondary school and university graduates (n=282)	59.9	64.5	28.4**	19.5	17.4
Lower level (n=718)	44.3	47.1	24.2	9.2	8.8
Total population	48.7	53.2	25.4	12.1	11.2

*Including all respondents who declare they do not live in a stable couple relationships (i.e. singles, divorcees living alone).

**Difference not significant.

group of respondents (25.1%) estimate that there is currently 'not enough' information about AIDS in the media in opposition to the 18.5% who declare there is 'too much' information: the former are more likely than the latter to feel influenced by campaigns (56.2% vs 34.6%) and to feel closer to AIDS patients (33.5% vs 17.8%) but also to declare that campaigns have increased their individual risk awareness of HIV infection (31.1% vs 23.2%) as well as their concern about risks for society due to the AIDS epidemic (83.7% vs 70.3%).

Respondents' judgments about the impact of the campaigns on their individual sexual and HIV testing behaviour, including incentive to personal condom use, are strongly correlated with each other and with self-acknowledgement to have felt influenced by campaigns and that campaigns have increased individual risk awareness of HIV infection (Table 3). But they are not correlated with respondents' opinions about impact of campaigns on collective fears and attitudes with the logical exception of judgments about effects of campaigns on social acceptability of condoms and collective promotion of HIV testing (Table 3).

Table 3

Weighted Pearson product moment correlation of items about judgments on individual and collective impact of campaigns

Item number	Item Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
		Y = yes, ? = don't know, N = no															
(1)	Improved knowledge about AIDS (Y 66.0%, ? 21.3%, N 12.7%)	1.000	/0.1837**	/0.0154	/0.1186**	/0.2066**	/0.1331**	/0.0234	/0.1510**	/0.1217**	/0.1324**	/0.0751	/0.0002	/0.0140	/-0.0036	/0.0553	/0.1174**
(2)	Increased compassion for AIDS patients (Y 43.1%, ? 35.4%, N 21.5%)	1.0000	/-0.0455	/0.1322**	/0.1622**	/0.2229**	/0.1278**	/0.1663**	/0.1952**	/0.2200**	/0.0519	/-0.0015	/-0.0129	/-0.0393	/-0.0116	/0.0751	
(3)	Increased stigmatization of AIDS patients (Y 28.9%, ? 28.1%, N 21.5%)	1.000	/0.2651**	/-0.0545	/-0.0066	/0.1916**	/0.0572	/0.0385	/-0.0471	/0.0224	/-0.0404	/0.0189	/0.0405	/0.0205	/-0.062		
(4)	Increased fears (Y 69.9%, ? 16.1%, N 14.0%)	1.000	/0.1510**	/0.0565	/0.1888**	/0.0572	/0.2012**	/0.0238	/0.1347**	/0.0006	/0.0295	/0.0405	/0.0257	/0.509			
(5)	Increased acceptability of condoms (Y 74.8%, ? 16.6%, N 8.6%)	1.000	/0.2384**	/0.060	/0.2735**	/0.1579**	/0.0551	/0.0173	/0.006	/0.0036	/-0.0156	/0.0234	/0.0897				
(6)	Promoted sexual fidelity (Y 52.4%, ? 28.3%, N 19.3%)	1.000	/0.1941**	/0.2141**	/0.1631**	/0.1425**	/0.0556	/-0.0063	/0.0120	/-0.0309	/0.0699	/0.0089					
(7)	Undermined sexual freedom (Y 24.0%, ? 26.0%, N 26.6%)	1.000	/0.1347**	/0.0191	/0.0333	/0.0937**	/-0.0653	/-0.0029	/-0.243	/0.0193	/-0.0130						
(8)	Promoted HIV testing (Y 45.1%, ? 36.1%, N 18.8%)	1.000	/0.1417**	/0.1395**	/0.1298**	/0.1342**	/0.0643	/0.1976**	/0.0655	/0.1234**							
(9)	Increased concern about risks of AIDS for society (Y 75.1%, ? 13.5%, N 11.4%)	1.000	/0.1467**	/0.1539**	/0.0173	/-0.0014	/0.0239	/0.0191	/0.1201**								
(10)	Feel closer to AIDS patients (Y 25.7%, ? 26.9%, N 47.4%)	1.000	/0.1341**	/0.0991**	/0.0874**	/0.0930**	/0.0693	/0.2325**									
(11)	More concerned about individual risk of HIV infection (Y 25.4%, ? 13.8%, N 60.8%)	1.000	/0.2846**	/0.2702**	/0.2380**	/0.2082**	/0.3079**										
(12)	Prompted to condom use (Y 12.1%, ? 5.8%, N 82.1%)	1.000	/0.4883**	/0.3492	/0.3346**	/0.2757**											
13	Prompted to caution in choice of sexual partners (Y 19.1%, ? 7.6%, N 73.3%)	1.000	/0.3329**	/0.6509**	/0.2601**												
(14)	Prompted to HIV testing (Y 11.2%, ? 5.3%, N 83.5%)	1.000	/0.3096**	/0.2841**													
(15)	Prompted to reduction in number of sexual partners (Y 15.0%, ? 8.7%, N 76.3%)	1.000	/0.1926**														
(16)	Personally concerned by campaigns (Much 11.2%, Rather 37.5%, Not at all 51.3%)	1.000															

**Significant at 0.01 level.

Table 4

Condom use and characteristics of respondents (heterosexually active respondents n=791)

	% of condom users
<i>Marital status</i>	
Singles and divorcees living alone (n=178)	37.6
Others (n=613)	10.9
<i>Age (yrs)</i>	
18-24 (n=121)	39.7
25-34 (n=204)	23.0
35-49 (n=240)	11.7
> =49 (n=226)	4.9
<i>Level of education</i>	
Secondary school and university graduates (n=240)	25.8
Lower level of education (n=551)	13.1
<i>Personal knowledge of an HIV carrier</i>	
Yes (n=99)	25.3
No (n=692)	15.5
<i>HIV testing</i>	
Yes (n=74)	33.8
No (n=717)	15.1
<i>Individual fear of HIV infection</i>	
High or average fear (n=265)	22.7
Low or nil (n=526)	14.7
<i>Feeling of changes in sexual behaviour among peers because of AIDS</i>	
Yes (n=158)	28.5
No (n=633)	13.9
<i>Acknowledgement of influence of campaigns on individual condom use</i>	
Yes (n=104)	65.4
No (n=686)	9.6
<i>Number of sexual partners in past 12 months</i>	
More than one (n=105)	41.9
One (n=686)	13.1

Table 5

Factors related to condom use in heterosexually active respondents (logistic regression model)

Factors present	Significant level OR's	Odds ratio	IC 95%
Being single**	0.0120	1.37	1.07-1.76
Age (lower than 35)	0.0000	1.77	1.39-2.24
Secondary school or university level of education**	0.0079	1.36	1.08-1.72
HIV testing	0.0304	1.43	1.04-1.97
Acknowledgement of influence of campaigns	0.0000	3.39	2.60-4.41

*IC are not symmetric because they have been calculated on the log odds.

**Excluded from the model when interactions with age and campaigns are tested.

Table 6

Adjusted odds-ratio of judgements about impact of campaigns and beliefs about transmission of HIV

Respondents who declare campaigns have:	Believe in transmission of HIV*						Believe in protection against HIV**	
	By drinking in carrier's glass (24.6%)	In public lavatories (34.8%)	By carrier's saliva (38.4%)	Mosquito bite (32.5%)	Donating blood (55.1%)	At the dentist (45.4%)	By washing after inter-course (27.2%)	By contra-ceptive pill (15.3%)
Improved knowledge IC 95%***	0.71 (++) (0.57-0.89)	0.77 (+) (0.64-0.94)	0.69 (++) (0.57-0.83)	0.85 (0.71-1.02)	1.03 (0.86-1.16)	0.86 (+) (0.66-0.95)	0.66 (++) (0.52-0.83)	0.62 (++) (0.43-0.88)

*% of respondents who answer yes to the question about this mode of transmission.

**% of respondents who answer yes or don't know to the question about this mode of protection.

***IC are not symmetric because they have been calculated on the log odds.

(+) $p < 0.05$ (++) $p < 0.005$.

Table 7

Adjusted odds ratio of judgements about impact of campaigns and attitudes toward HIV carriers and AIDS-preventive policies

Respondents who declare campaigns have:	Agree to leave Children with HIV carrier	Oppose quarantine for AIDS patients	Oppose mandatory screening for the whole population
(1) Made them feel closer to HIV carriers and AIDS patients	1.40 (+ +) (1.13-1.72)*	1.45 (+) (1.98-1.07)	0.98 (0.81-1.19)
(2) Increased their individual risk perception of HIV infection	1.02 (0.82-1.18)	1.02 (0.80-1.30)	0.75 (+ +) (0.63-0.90)
(3) Increased their concern about risks of AIDS for society	0.90 (0.74-1.09)	1.05 (0.82-1.34)	0.82 (+) (0.68-0.98)
(4) Increased stigmatization toward AIDS patients	1.05 (0.87-1.27)	1.01 (0.79-1.29)	0.81 (+) (0.68-0.98)
(5) Increased fears	0.95 (0.79-1.14)	0.93 (0.73-1.19)	0.96 (0.80-1.14)

*IC 95% are not symmetric because they have been calculated on the log odds.

(+) $p < 0.05$; (+ +) $p < 0.005$.

Campaigns and reported condom use

However, among heterosexually active respondents who declare that campaigns have prompted them to use condoms, 65.4% have effectively used condoms during the last 12 months while this proportion falls to only 9.6% in the rest of the sample. Similarly, among respondents who have been tested for HIV antibodies ($n = 84$), a majority (58.3%) declares that they have been prompted to testing by campaigns while 40.7% of those who have considered testing, without having effectively done it yet, also make reference to the influence of the campaigns.

A total of 134 individuals (16.9% of heterosexually active respondents) declare at least occasional condom use in the last twelve months, 20.1% being new users; 57.9% are motivated by fear of AIDS and STD's while contraception alone is a motivation for the remaining 42.1%. Among respondents declaring more than one sexual partner ($n = 105$), condom use reaches 41.9% ($n = 44$). Systematic use is reported by 55.2% of condom users in a monogamous relationship, this proportion reaching 62.3% among users with multiple sexual partners. Among condom users, half (50.7%) acknowledge an influence of campaigns, this proportion reaching 67.1% among the users motivated by fear of AIDS and STD's.

It must be noted that proportion of condom users is higher (19.4%) among heterosexually active men than among women (14.7%); although this difference is not significant it could be related to the smaller proportion of

women declaring multiple sexual partners (9.2% vs 16.3% among men). Women are significantly less likely than men to acknowledge the influence of the campaigns on their use of condoms (8.4% vs 18.2%).

Many other variables than self-acknowledgement of influence of campaigns are significantly related to condom use (Table 4). However, when a stepwise logistic regression model is applied, influence of campaigns remains significantly related to condom use as well as age, marital status, level of education and HIV testing (Table 5). This result is confirmed when separate regressions are done by sex of respondents: influence of campaigns OR's being respectively 3.71 [IC 95% = 2.55–5.42] for men and 2.96 [IC 95% = 1.93–4.55] for women.

Campaigns and attitudes toward HIV infection and PWA's

Appreciation by respondents of societal impact of campaigns may look ambiguous with majorities estimating that they have increased knowledge about the disease (66%) but also that they have raised fears (69.9%) or personal concern about risks of AIDS for society (75.1%) (Table 3). Critics of campaigns associate the opinion that they may increase discriminatory attitudes with an increase of fears and the impression they may question current values of sexual freedom (Table 3).

Campaigns and beliefs about HIV modes of transmission Nearly all respondents answer correctly about the real modes of transmission of HIV through sexual intercourse (98.5%), IV drug use (95.3%) and blood transfusion (92.8%). Nonetheless, like in most countries [4] a significant proportion of French general public still falsely believes in HIV transmission through casual contact [by drinking in carrier's glass (24.6%), in public lavatories (34.8%)]. Adjusted odds ratio for socio-demographic characteristics of respondents (age, marital status, level of education) which are significantly related to both judgments about campaigns and beliefs about transmission show, however, that individuals who think campaigns have increased knowledge about AIDS are less likely to share such beliefs (Table 6). Similarly, these same respondents are less likely to falsely believe that vaginal showering after sexual intercourse or even the contraceptive pill may be effective means of protection against HIV contamination (Table 6).

Respondents who think campaigns have improved knowledge are also less likely to believe in HIV modes of transmission (through carrier's saliva or at the dentist shared by 38.4% and 45.4%) for which public information campaigns' emphasis about the absence or quasi-absence of epidemiological risk may sometimes have sounded ambiguous or even contradictory, for the lay public, in front of other media information reporting uncommon cases of transmission from health care professionals to patients [5] or presence of the virus in HIV carrier's body fluids (Table 6). But campaigns do not seem to have had any influence on beliefs about transmission through mosquito bite

(shared by 32.5%) whose hypothesis was, one time, scientifically discussed [6] and on confusion between blood donation and blood transfusion (55.1% believing in possible transmission through blood donation).

Campaigns and attitudes toward HIV carriers Tolerance toward HIV carriers, measured on the Social Interaction Scale [7] remains high with respectively 80.7%, 77.0%, 65.5% and 61.8% agreeing to work in same office, to maintain personal relations, to have dinner in his house or to go with him for vacation; but only 47.1% will agree to leave their children with an HIV carrier, 34.3% denying it and 18.6% not knowing. Support for openly coercive measures against HIV carriers and AIDS patients also remains limited: 78.5% clearly oppose quarantine for AIDS patients which is only demanded by 9.0%. As Table 7 shows it, respondents who declare that campaigns have increased their personal empathy toward AIDS patients and HIV carriers are less likely to support quarantine and more likely to express positive attitudes such as leaving children with an HIV carrier. On the reverse, acknowledgement of increased risk awareness at the individual or collective level because of campaigns do not seem to have translated in more discriminatory attitudes.

The picture is less clear-cut when it comes to coercive policies which, in spite of statements by government officials, may look in lay public's eyes as having some public health rationale [8]: only 44.4% clearly oppose the idea of HIV mandatory screening for the whole population which is openly supported by 37.3%. On this issue, contrary to the previous ones, respondents who acknowledge that campaigns have increased their individual and collective risk awareness of HIV infection are less likely to oppose mandatory screening (Table 7).

Discussion

Like in our French survey, worldwide attempts to assess impact of media campaigns for prevention of AIDS usually report a positive contribution to increase in knowledge and risk awareness [9–16]. But, evidence remains scarce and not convincing for contribution of campaigns to behavioural change [17]. Some public health have advocated 'randomised experiments to determine the effectiveness of AIDS media campaigns' [18]. Unfortunately, such experiments are very difficult to implement at national level; and, in any case, it would be very difficult to control confounding factors in order to separate effects of specific campaigns from the general context of AIDS public prevention policies.

The more pragmatic approach initially suggested by researchers in charge of assessment of the Swiss campaigns [19] does not have the ambition to demonstrate causal relations between campaigns and behavioural changes but rather to monitor noticeable changes in attitudes and behaviours concurrently to campaigns development. Our attempt to use data from a KABP survey on

HIV infection in French general population to assess impact of campaigns is based on a similar assumption. The significant relation we have found between self-acknowledgement of impact of media public campaigns on condom use and effective reported use does not prove any direct causal effect of campaign messages on adoption of preventive behaviour. It must be compared with the 56% rise in condom sales in France between 1986 and 1989 [3] but also with persistence of high risk behaviours documented in our survey by the fact that a majority of heterosexual respondents with multiple partners (58.1%) do not report any condom use. But, it at least suggests, as similar results from evaluation of Swiss, Dutch and Eastern Carribean campaigns also do [9,10,20,21], that media campaigns, as part of the combination of all formal prevention activities, news coverage and informal channels which taken altogether constitute the national AIDS information public policy, play some concrete role in facilitating and re-enforcing positive attitudes and behaviours toward prevention.

One possible explanation, which is coherent with recent developments in social psychology showing how values often guide behaviour [22] and research in other fields of health behavioural prevention insisting on the contribution of public information to change social norms [23], could be that interventions which increase people's perception of normative pressure to use condoms are more likely to be effective. Condom public promotion campaigns through media channels may be specially appropriate to convey messages with some normative impact to the extent that they express an explicit commitment of health officials, medical experts, and society's leaders. However, this 'normative' effect of campaigns may weaken through time if a permanent presence of public messages in the media is not regularly maintained, if practical relays for prevention do not sufficiently exist (for example if effective accessibility to condoms is not ensured), if distrust of public health authorities and government increases, and if social conflicts about moral, cultural and ethical values involved in prevention of sexual transmission of HIV impede the emergence of new norms.

Our survey suggests that in France, where condoms were not widely diffused as a contraceptive tool before the AIDS epidemic (in 1978, only 5.2% of women aged between 20 and 44 were using condoms as a regular contraceptive tool vs 27.9% for the pill [24]), media campaigns have contributed to change their social image and to make them more 'of a social routine'.

Because educational messages to prevent AIDS are unavoidingly 'dual' messages of reassurance and alarm from responsible officials [25], concern has been raised that AIDS preventive practices and support for coercion under epidemic conditions may share similar determinants (perceived severity and susceptibility to AIDS) and that emphasising them may not only promote preventive practices but also unwittingly increase support for coercive measures [26]. Our results do not support such a pessimistic view at least in the French context where public health and government officials have, up to now, systematically implemented 'liberal' preventive policies based on

individual's responsibility rather than coercive ones with the support of health care professional associations, and all religious and political leaders (with the notable exception of the ultra-right political groups). Expressed tolerance toward HIV carrier remains high and increased risk awareness of HIV infection following media campaigns has not translated in increased discriminatory attitudes. However, results from previous research in Paris region [27], and the observed tendency in this survey that respondents most influenced by campaigns also support control measures such as mandatory screening for the whole population show that social acceptability of HIV carriers and PWA's remains very fragile. Monitoring of potential social negative outcomes of media campaigns is therefore also a necessity for decision makers to harmoniously manage the complex trade-offs between the two major goals of AIDS prevention: incitation to behavioural change and development of solidarity with HIV carriers and AIDS patients.

Acknowledgements

The French survey on which this article is based was jointly supported by AFLS (French Agency for the Fight Against AIDS), ANRS (National Agency for AIDS Research), CFES (French Committee for Health Education) and ORS Ile de France and Provence Alpes Côte d'Azur (Centers for Disease Control, Paris Region and South-Eastern France).

References

- 1 European Centre for the Epidemiologic Monitoring of AIDS, AIDS surveillance in Europe, Paris, Quarterly Report, 30 (1991).
- 2 Got, C.L., Rapport sur le SIDA (Report on AIDS) (in French), Flammarion Eds, Paris, 1989.
- 3 French Minister of Health and Social Affairs, La Lutte contre le Sida en France (The fight against AIDS in France) (in French), Minister of Health, Paris, 1991.
- 4 Blendon, R.J. and Donelan, K., Discrimination against people with AIDS, *N Engl J Med*, 319 (1988) 1022-1026.
- 5 Rhame, F.S., The HIV-infected surgeon, *JAMA*, 264 (1990) 507-508.
- 6 Blaser, M.J., Insect-borne transmission of AIDS, *JAMA*, 255 (1986) 463-464.
- 7 Kelly, J.A., St. Lawrence, J.S., Smith, S., Hood, H.V. and Cook, D.J., Stigmatization of AIDS patients by physicians, *Am J Public Health*, 77 (1987) 789-791.
- 8 Bayer, R., Public health policy and the AIDS epidemic. An end to HIV exceptionalism, *N Engl J Med*, 324 (1991) 1500-1504.
- 9 De Vroome, E.M.M., Paalman, M.E.M., Sandfort, Th.G.M., Sleutjes, M., De Vries, K.J.M. and Tielman, R.A.P., AIDS in the Netherlands: the effects of several years of campaigning, *Int J STD & AIDS*, 1 (1990) 268-275.
- 10 Lehmann, P., Hausser, D., Somaini, B. and Gutzwiller, F., Campaigns against AIDS in Switzerland: evaluation of a nationwide educational programme, *Br Med J*, 295 (1987) 1118-1120.
- 11 Campbell, M.J. and Waters, W.E., Public knowledge about AIDS increasing, *Br Med J*, 294 (1987) 892-893.

- 12 Kraft, P. and Rise, J., Public awareness and acceptance of an HIV/AIDS information campaign in Norway, *Health Educ Res*, 3 (1988) 31-39.
- 13 Ross, M.W., Carson, J.A., Cass, V.C., Hart, J. and Wilson, P.R., Knowledge of AIDS in Australia: a national study, *Health Educ Res*, 3 (1988) 367-373.
- 14 Gerbert, B. and Maguire, B., Public acceptance of the surgeon general's brochure on AIDS, *Public Health Rep*, 104 (1989) 130-133.
- 15 Bond, L.S., Public information about AIDS in Brazil, the Dominican Republic, Haïti and Mexico, *Bull Pan Am Health Organ*, 23 (1989) 86-94.
- 16 Margo, G., McDonald, G., Schneider, A., Dayrit, M., Abad, M. and Consunji, B., The importance of social marketing techniques in creating effective media campaigns on AIDS, VIIth International Conference on AIDS, Florence (abstract WD 4273), 1991.
- 17 Stoller, E.J. and Rutherford, W., Evaluation of AIDS prevention and control programs, *AIDS*, 3 (Suppl 1) (1989) S289-S296.
- 18 Coyle, S.L., Boruch, R.F. and Turner C.F. (Eds.), *Evaluating AIDS Prevention Programs*, National Academy Press, Washington D.C., 1991.
- 19 Dubois-Arber, F., Lehmann, P. and Hausser, D., Towards improved action against AIDS, *WHO*, 9 (1988) 376-381.
- 20 Middlestadt, S.E., Zucker, D., Ramah, M. and Eustace, M.A., Using KABP data to develop communication interventions to increase condom use among heterosexuals in the Eastern Carribean, VIIth International Conference on AIDS, Florence (abstract MD 4036), 1991.
- 21 Stutz-Steiger, T., Wasserfallen, K., Kent, C.K. and Somaini B., The role of assessment in the production of a prevention campaign, VIIth International Conference on AIDS, Florence (abstract ThD 113), 1991.
- 22 Homer, P.M. and Kahle, L.R., A structural equation test of the value-attitude-behavior hierarchy, *J Pers Soc Psychol*, 54 (1988) 638-646.
- 23 Green, L.W. and McAlister, A.L., Macro-intervention to support health behaviour: some theoretical reflections, *Health Educ Q*, 3 (1984) 322-339.
- 24 Leridon, H. and Sardon, J.P., Contraception in France in 1978 (in French), *Population*, Special issue (1979) 1349-1390.
- 25 Fineberg, H.V., Education to prevent AIDS: prospects and obstacles, *Science*, 239 (1988) 592-596.
- 26 Allard, A.R., Beliefs about AIDS as determinants of preventive practices and of support for coercive measures, *Am J Public Health*, 79 (1989) 448-452.
- 27 Dab, W., Moatti, J.P., Bstide, S., Abenheim, L. and Brunet, J.B., Misconceptions about transmission of AIDS and attitudes toward prevention in the French general public, *AIDS*, 3 (1989) 433-437.