

Evaluation of the Dutch AIDS Information Helpline: An Investigation of Information  
Needs and Satisfaction of Callers

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Abstract

AIDS telephone hotlines may have an important function in AIDS education, HIV prevention and counseling. In this study, consults of the Dutch AIDS Information Helpline were evaluated to determine the AIDS information needs of the callers and callers' satisfaction with the telephone-delivered information and consultation. Immediately after their telephone consult, callers (N = 309) were redirected to co-workers of an independent telephone survey. They participated in an interview on content and evaluation of the telephone consult. This study shows that most telephone calls concerned questions about personal risk of HIV transmission, HIV transmission in general and HIV testing. Callers were very satisfied with the services of the helpline. Furthermore, helpline employees' counseling and conversation skills were evaluated very positively. These results are discussed within the scope of the professional organization of the Dutch AIDS Information Helpline.

Keywords: HIV, evaluation, telephone hotline, education, counseling

## 1. Introduction

Since the beginning of the AIDS pandemic, the provision of accurate information about HIV transmission has been an essential part of many educational campaigns aimed at the promotion of safer sex. Many public campaigns have been launched to inform the general public about HIV/AIDS [1-3] and a large number of interventions have focused on specific target groups such as homosexual men [4, 5], drug users [6-8], adolescents [9, 10], women [11] and migrants or ethnic minorities [12]. Within this broad spectrum of educational activities aimed at HIV prevention, AIDS telephone hotlines have been one of the services to fulfill HIV/AIDS information needs [13, 14].

In 1985 the Dutch AIDS Information Helpline was founded. The main objectives of this helpline are the provision of information about HIV and AIDS to the general public and specific occupational groups, the provision of first care, the adequately referral to other relevant organizations, the provision of accessible and anonymous service for people with questions about HIV and AIDS, and the observation of trends, bottlenecks and needs regarding the combat against HIV and AIDS. The AIDS Information Helpline provides information and counseling via a co-worker of the helpline and uses protocols to answer a variety of questions. The helpline is free of charge and can be reached eight hours a day (from 2 p.m. till 10 p.m.). Yearly, the helpline receives between 15.000 and 20.000 calls. Employees of the AIDS Information Helpline are trained and paid professionals. New employees are carefully selected and have to participate in an intensive training program. Important aspects of the AIDS Information Helpline are *monitoring information needs, in-service training and intervision*. To be able to provide an adequate response to each call, the topic of each call is recorded. All employees participate in three-weekly

training sessions in which they discuss new developments in information needs. On a regular basis, experts are invited to provide information about the developments in the epidemic and treatment. In addition, helpline employees have to study literature and visit congresses to keep their knowledge about new developments regarding HIV up-to-date. Employees also participate in intervision meetings with other helpline co-workers. These sessions focus on the quality of the consults, and on coping with personal emotional experiences of the co-workers themselves.

Since its debut the telephone has been used as an instrument of health education and promotion [15], varying from simple information hotlines to group counseling [16] and complex computerized counseling [17]. The telephone as a delivery mechanism has many advantages [18]. It has proven to be a useful interactive delivery mechanism to tailor and individualize messages, both health education methods that have shown to be effective in changing health attitudes and behaviour [18, 19]. Because of visual privacy the telephone can make consults less stressful and more productive for people who are reluctant to discuss particular issues, such as their sexual practices, with, for instance, their general practitioner.

Telephone hotlines are easily accessible. Many people have a (mobile) phone at their disposal and most telephone hotlines are free of charge or relatively cheap. Furthermore, most telephone hotlines have rather large opening hours, or provide recorded information in a phone databank 24 hours a day. Moreover, telephone hotlines focusing on the general public can reach a large number of people, among whom dispersed or homebound populations. Of course, the telephone may also have some disadvantages compared to other media [20]. Telephone-delivered health education and counseling may be perceived as rather impersonal compared to face-to-face communication. Furthermore, telephone hotlines that offer the possibility to

interact with others are often more expensive than other forms of mass-media communication, such as videotapes or brochures. Moreover, dialing into a phone databank may be frustrating as one has to listen to a digitized voice and remember all options prior to selecting one.

In recent years, a number of evaluation studies have been reported on telephone hotlines focusing on different health problems and diseases, such as cancer, dementia or infertility (see for example [21-23]). Most evaluation studies on telephone hotlines have primarily assessed caller profiles and their information needs rather than how callers evaluate the information and counselling they receive. As an exception, one study [22] has paid attention to the experience and satisfaction of callers of a telephone hotline. They found that most of the callers of the Dutch cancer information helpline evaluated the different characteristics of this helpline very positively, and that the level of satisfaction was determined by both the evaluation of the information received and the evaluation of the communication skills of the helpline employees.

A number of studies have investigated caller profiles and information needs of callers of AIDS hotlines [13, 14, 24]. One study [13] investigated questions received by two AIDS information hotlines in 1994. This study shows that callers most frequently asked questions about HIV antibody testing (27 %), sexual transmission of HIV (16 %), HIV-related symptoms (16 %) and HIV in non-risky situations (14 %). Another study [24] investigated background characteristics and concerns of Spanish-speaking callers to the CDC national AIDS hotline in 1995. Most conversations addressed multiple issues, such as HIV-testing (40%), sexual transmission (26%), condoms (25%), HIV symptoms (24%) and course of infection (21%). Interestingly, this study revealed that male callers had more concerns about HIV testing, sexual

transmission, condoms and HIV symptoms than female callers. No sex differences were found on other topics, such as course of infection, HIV positive health issues and nonsexual transmission. Another study [14] examined demographics of callers and conversation topics of an AIDS helpline in Alaska from 1991 till 1996. This study also found sex differences in concerns. Male callers asked more information on HIV testing and safe-sex practices, whereas female callers asked more information on other topics, such as HIV transmission in schools and childcare centers.

All of the above mentioned evaluation studies of AIDS hotlines were conducted before 1996, the year that antiretroviral therapy for HIV-patients became available in western societies. All studies only examined profiles of callers and their information needs. None of the above mentioned studies has investigated the satisfaction of callers to the AIDS hotline, while this is also an important evaluative aspect. In the present article an evaluation study on the Dutch AIDS information helpline is reported. This evaluation study not only focuses on background characteristics and information needs of callers to this helpline, but also investigated callers' satisfaction with this telephone-delivered information, education and counseling service.

## 2. Method

### *2.1 Procedure and participants*

Callers were asked to participate in an anonymous evaluation study at the end of their telephone call with the Dutch AIDS information helpline. It was pointed out that the evaluation study was carried out by independent co-workers of Maastricht University and that participation was free of charge. People willing to participate were redirected to the telephone service of Maastricht University. They received a 7-minute interview on the content and evaluation of their call with the helpline.

The study was conducted in a 7-week period in January and February 2000. In this period, the helpline received a total of 2622 calls. Interviews were conducted in the afternoon (2 p.m. till 5 p.m. during 5 weeks) and in the evening (6 p.m. till 9 p.m. during 2 weeks) by two university co-workers experienced in conducting telephone surveys. All callers who could be put through immediately after the helpline call (N=455) – when both lines with the university were engaged, helpline callers were not asked to participate because they would have to hold the line for minutes – were asked to participate. Hundred sixteen people refused to participate. Most mentioned reasons for non-response were situational factors, such as being at work or driving a car. Twenty-five interviews could not be conducted due to technical problems with re-direction of the callers. Five interviews were not completed. Finally, 309 callers participated in this study. This yields a response rate of 68 percent.

## 2.2 Questionnaire

The interview consisted of background variables, content of the telephone call, evaluation of the telephone consult and general questions about the Dutch AIDS information helpline.

*Background variables.* Participants were asked to indicate their level of education and age. Interviewers assessed participants' sex.

*Content of telephone calls.* Participants were asked to mention the conversation topic. They were also asked to indicate to what extent the information provided by the employee of the Dutch AIDS information helpline was general or personal. This question was measured on a 5-point scale (1 = very personal, 5 = very general).

*Evaluation of telephone calls.* Evaluation of the telephone call was assessed by different questions. Participants had to indicate their general satisfaction with the

telephone call, their satisfaction with the tone of the conversation, whether they felt their questions were answered adequately, and to what extent the employee of the Dutch AIDS information helpline listened to them. They also had to rate the conversation and counseling skills of the helpline employee. These questions were all measured on 5-point scales, with higher scores indicating greater satisfaction. Participants were also asked their opinion on the length of the conversation. This question was measured on a 3-point scale (1 = too short, 2 = exactly right, 3 = too long).

*General questions about the Dutch AIDS information helpline.* Participants were asked if they immediately had a connection with the Dutch AIDS information helpline. If not, they had to indicate how long they had to wait. Furthermore, participants were asked how often they call the Dutch AIDS information helpline. This question was measured on a 4-point scale (1 = never, 4 = every week). Moreover, participants were asked their opinion about if they the opening hours of the Dutch AIDS information helpline. This question was measured on a 3-point scale (1 = too short, 2 = exactly right, 3 = too long). Finally, participants were asked to give a mark, ranging from 1 to 10, to the Dutch AIDS information helpline.

### 3. Results

#### *3.1 Sample characteristics*

A number of 309 callers participated in this study. The average age of the callers was 32, ranging from 11 to 72 years. Fifty-eight percent of the callers were male and 42 percent female. Twenty-one percent had a low, 40% a medium and 39%



a high level of education.

### *3.2 Content of telephone calls*

Table 1 shows the main conversation topics of callers to the Dutch AIDS information helpline. Some conversations concerned multiple issues. Forty-four percent of telephone calls addressed personal risk of HIV transmission, 30% of calls addressed HIV transmission in general, 20% addressed questions on HIV testing, and 10% requested an information package.

As expected, male and female callers had different information needs (see table 1). Male callers asked more questions about personal risk of HIV transmission ( $\chi^2(1, N = 309) = 8.62, p < .01$ ) or HIV transmission in general ( $\chi^2(1, N = 309) = 8.79, p < .01$ ) than female callers. Conversely, female callers more often requested an information package ( $\chi^2(1, N = 309) = 38.55, p < .001$ ) or asked a question on 'other topics' ( $\chi^2(1, N = 309) = 4.26, p < .05$ ) than male callers. Information needs were also related to callers' educational background. Higher educated callers asked more questions about HIV testing ( $\chi^2(2, N = 309) = 6.26, p < .05$ ), whereas lower educated callers more often requested an information package ( $\chi^2(2, N = 309) = 8.88, p < .05$ ).

Fifty-three percent of callers labelled their questions as general and 39% as personal. Eight percent of callers indicated that their question was neither general nor personal.

### *3.3 Evaluation of telephone calls*

Table 2 shows the means and standard deviations for the questions about the evaluation of the telephone call. Callers of the Dutch AIDS information helpline evaluated the hotline very positive. Almost all callers were quite satisfied or very satisfied with the telephone call in general (97%), with the tone of conversation

(96%), with the answers to their questions (97%), with the listening skills of the helpline employee (99%), and with the conversation and counseling skills of the employee (87%). Ninety-five percent of callers evaluated the length of the telephone call as 'just right'.

Male and female callers were equally positive in their evaluation of the Dutch AIDS information helpline. Lower educated callers were less positive in their evaluation of the helpline than higher educated callers. Lower educated callers were less satisfied with the telephone call in general ( $F(2, 306) = 6.84, p < .01$ ), with the tone of their conversation ( $F(2, 306) = 7.56, p < .01$ ), with the answers to their questions ( $F(2, 306) = 4.54, p < .05$ ) and with the conversation and counseling skills of the employee ( $F(2, 304) = 3.14, p < .05$ ). It should be noted, however, that lower-educated callers were quite positive in their evaluation of the helpline, but that higher-educated callers were even more positive in their evaluation.

Callers who labelled their questions as personal were more satisfied with the conversation and counselling skills of the employee ( $M = 4.32$ ) than callers with a general question ( $M = 4.14$ ),  $F(1, 276) = 2.16, p < .05$ .

#### *3.4 The Dutch AIDS information helpline*

Callers were also very satisfied with the general services and organization of the Dutch AIDS information helpline. The overall services and organization of this helpline was evaluated with 8.3 on a 10-point scale. Callers with a personal question were more satisfied with the general services and organization of the helpline ( $M = 8.53$ ) than callers with a general question ( $M = 8.20$ ),  $F(1, 276) = 7.09, p < .01$ . Sixty-four percent of callers were satisfied with helpline opening hours; according to 35% the opening hours were too limited. Most callers (79%) indicated that they rarely or never call the helpline, 16% indicated to call a couple of times a year, 3% calls each

month and 2% each week. The helpline seems easily accessible: 70% of callers immediately had a connection with a co-worker of the helpline, and 30% had to hold the line. Fifty-four percent of the latter group was connected within two minutes, 15% had to hold the line for more than 5 minutes.

## 4. Discussion

### *4.1 Conclusion*

The present study has investigated information needs and satisfaction of callers to the Dutch AIDS information helpline. Results of this study demonstrate that this helpline is a well-appreciated source for a variety of questions and concerns about AIDS and HIV. Furthermore, it provides the possibility for people to receive feedback on their risk behaviour in the past or in the future. In that sense, the Dutch AIDS information helpline also has a vital role in HIV prevention and counselling.

### *4.2 Discussion*

The Dutch AIDS information helpline is an important source for fulfilling AIDS information needs. Most callers had information needs concerning personal risk of HIV transmission and HIV transmission in general. One in five callers had information needs about HIV testing and one in ten callers requested an information package. These results are somewhat different compared to results of evaluation studies of other AIDS hotlines. In other studies [13, 24] it was found that relatively more callers asked questions about HIV testing. These differences can be explained by differences in HIV-testing policy between the Netherlands and the USA. For years, the Dutch government has been rather reluctant in promoting HIV testing [25]. In the past, there was no adequate treatment available and it was argued that the negative consequences (e.g., problems with life insurance, the psychological burden of being HIV-positive) would not outweigh the benefits of HIV testing. This policy has

changed since the introduction of antiretroviral therapy in 1996, when it became clear that early treatment of HIV has clear health benefits. However, despite an active testing policy, target groups in the Netherlands, in contrast to other countries, continue to have their reservations against HIV testing [26]. This might explain why the issue of HIV testing is discussed less frequently in telephone calls to the Dutch AIDS information helpline compared to AIDS hotlines in the USA.

In line with other evaluation studies of AIDS hotlines [13, 14, 24] it was found that male and female callers had different information needs regarding HIV and AIDS. Male callers asked more questions about HIV transmission, whereas female callers asked more information about other topics and more often requested an information package. Apparently, men seem to prefer to receive feedback on their personal risk behaviour in the past or in the future, whereas women seem to prefer information on a broader range of aspects of the disease.

Callers to the Dutch AIDS information helpline were very satisfied with the helpline services. Furthermore, they were also very positive about the conversation and counseling skills of helpline staff. In particular, people with a personal question were very satisfied with these skills and were very positive in their overall evaluation of the helpline. This reflects the professional organization of the Dutch AIDS information helpline. Monitoring information needs, in-service training and intervision seem to guarantee the high quality of this telephone-delivered information, education and counseling service.

The Dutch AIDS information helpline aims to provide information and counseling to people of all educational levels. However, this study demonstrates that the helpline does reach relatively less lower-educated persons. Lower-educated persons also seem to be less positive than higher-educated persons in their evaluation

of several aspects of their telephone call, although their evaluation of the helpline is quite positive. In part, this could be explained by the fact that lower-educated persons more often requested an information package and that conversation and counseling skills or tone of conversation were less important in such general requests compared to answering personal questions. This finding is hard to compare with previous evaluations of AIDS hotlines, since these studies have not reported educational level of callers [13, 14] or investigated callers of minority groups that includes larger proportions of lower-educated persons [24]. However, this result is in line with the fact that lower-educated persons are rather hard to reach with (mass-media) health education [27] and that they, compared to higher-educated persons, seem to seek health related information in their own social network rather than through other communication channels [28].

The present study has several strong conceptual and methodological aspects. In contrast to other evaluations of AIDS hotlines, we not only investigated information needs of callers, but also examined callers' satisfaction with the helpline. The latter part of this study has demonstrated that callers to the Dutch AIDS information helpline were very satisfied with the services of this well-organized telephone-delivered service. Similar positive evaluations were found in an evaluation study on the Dutch cancer information helpline [22]. As such, the present study adds to the finding that information helplines are well-appreciated communication channels for health education and counseling. Unfortunately, our study did not measure the impact of employee's health education and counseling. Although it would have been very interesting to investigate this evaluative aspect as well, it seems rather impossible to measure the long-term impact of a telephone call among anonymous callers of an AIDS hotline.

In contrast to some other evaluation studies on hotlines (e.g. [22]) we measured people's initial reactions to their telephone call by means of a telephone survey. This method has some advantages compared to a mail survey. For example, conversation topics are still vivid in people's memory and people remember details of their conversation better. Furthermore, response rates are generally somewhat higher. However, this method also has some drawbacks. For example, most questions consisted of single-items. However, this is used more often in telephone surveys and is less problematic if this question contains the central aspect of this concept [29, 30].

#### *4.3 Practical implications*

on condition that they are well-organized, monitor information needs and provide intensive in-service training of helpline staff.

## References

- [1] de Vroome EM, Sandfort TG, de Vries KJ, Paalman ME. Evaluation of a safe sex campaign regarding AIDS and other sexually transmitted diseases among young people in the Netherlands. *Health Educ Res* 1991;6:317-25.
- [2] Kok G, Kolker L, de Vroome E, Dijker AJ. 'Safe sex' and 'compassion': Public campaigns on AIDS in the Netherlands. In: Sandfort TGM, editor. *The Dutch response to HIV: Pragmatism and consensus*. London: UCL Press; 1998. p. 19-39.
- [3] Yzer MC, Siero FW, Buunk BP. Can public campaigns effectively change psychological determinants of safer sex? An evaluation of three Dutch campaigns. *Health Educ Res* 2000;15:339-52.
- [4] Kalichman SC, Hospers HJ. Efficacy of behavioral-skills enhancement HIV risk-reduction interventions in community settings. *AIDS* 1997;14(suppl. A):S191-9.
- [5] Kelly JA. HIV preventions interventions with gay or bisexual men and youth. *AIDS* 2000;14(suppl. 2):S34-9.
- [6] Booth RE, Watters JK. How effective are risk-reduction interventions targeting injecting drug users? *Aids* 1994; 8:1515-24.
- [7] Gibson DR, McCusker J, Chesney M. Effectiveness of psychosocial interventions in preventing HIV risk behaviour in injecting drug users. *Aids* 1998; 12:919-29.
- [8] van Empelen P, Kok G, van Kesteren NMC, van den Borne B, Bos AER, Schaalma HP. Effective methods to change sex-risk among drug users: A review of psychosocial interventions. *Soc Sci Med*: in press.
- [9] Jemmott JB, HJemmott LS. HIV risk reduction behavioral interventions with heterosexual adolescents. *AIDS* 2000;14(suppl. 2):S40-52.

- [10] Schaalma HP, Kok G, Abraham C, Hospers HJ, Klepp K, I, Parcel G. HIV education for young people: Intervention effectiveness, program development, and future research. Prospect: in press.
- [11] Ehrhardt A, Exner TM. Prevention of sexual risk behavior for HIV infection with women. *AIDS* 2000;14(suppl. 2):S53-8.
- [12] Amaro H, Raj A, Reed E, Cranston K. Implementation and long-term outcomes of two HIV intervention programs for latinos. *Health Promot Pract* 2002;3:235-54.
- [13] Kalichman SC, Belcher L. AIDS information needs: Conceptual and content analyses of questions asked of AIDS information hotlines. *Health Educ Res* 1997; 12; 279-88.
- [14] Turner SJ, Reynolds GL, Fenaughty AM, Fisher DG, Cagle HH, Paschane D. Assessing community-based AIDS helpline service provision in Alaska. *AIDS Behav* 2000; 4:159-65.
- [15] Soet JE, Basch CE. The telephone as a communication medium for health education. *Health Educ Behav* 1997;24:759-72.
- [16] Roffman RA, Ficciano JF, Ryan R, Beadnell B, Fisher D, Downey L, et al. HIV-prevention group counseling delivered by telephone: An efficacy trial with gay and bisexual men. *AIDS Behav* 1996;1:137-54.
- [17] Ramelson HZ, Friedman RH, Ockene JK. An automated telephone-based smoking cessation education and counseling system. *Pat Educ Couns* 1999; 36:131-44.
- [18] Bartholomew LK, Parcel GS, Kok G, Gottlieb N. *Intervention Mapping: A process for designing theory- and evidence based health education programs.* Mountain View, CA: Mayfield; 2001.



- [19] de Vries H, Brug J. Computer-tailored interventions motivating people to adopt health promoting behaviours: Introduction to a new approach. *Pat Educ Couns* 1999;36:99-105.
- [20] Street RL, Jr., Rimal RN. Health promotion and interactive technology: A conceptual foundation. In: Street RL, Jr., Gold WR, et al., editors. *Health promotion and interactive technology: Theoretical applications and future directions*; 1997. p. 1-18.
- [21] Gilliard J, Keady J, Evers C, Milton S. Telephone helplines for people with dementia. *Int J Geriatr Psychiatry* 1998;13:734-5.
- [22] Lechner L, De Vries H. The Dutch cancer information helpline: Experience and impact. *Pat Educ Couns* 1996; 28:149-57.
- [23] van Balen F, Verdurmen JEE, Ketting E. Assessment of a telephone helpline on infertility provided by a patient association. *Pat Educ Couns* 2001;42:289-93.
- [24] Scott SA, Jorgensen CM, Suarez L. Concerns and dilemmas of Hispanic AIDS information seekers: Spanish-speaking callers to the CDC National AIDS hotline. *Health Educ Behav* 1998;25:501-16.
- [25] Veenker J. The decisive role of politics: AIDS control in the Netherlands. In: Sandfort TGM, editor. *The Dutch response to HIV: Pragmatism and consensus*. London: UCL Press; 1998. p. 121-134.
- [26] AIDS Fonds. *HIV & AIDS, a strategy for the Netherlands: 2002-2005*. Amsterdam: AIDS Fonds; 2001.
- [27] Green W, Kreuter MW. *Health promotion planning: An educational and environmental approach* (2nd ed). Mountain View: Mayfield Publishing Company; 1991.

- [28] Egger G, Donovan RJ, Spark R. Health and the media: principles and practices of health promotion. Sydney: McGraw-Hill; 1993.
- [29] Bos AER, Kok G, Dijker AJ. Public reactions to people with HIV/AIDS in the Netherlands. *AIDS Educ Prev* 2001;13:219-28.
- [30] Jaccard J, Weber J, Lundmark J. A multitrait-multimethod analysis of four attitude assessment procedures. *J Exp Soc Psychol* 1975;11:149-54.

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Table 1

Conversation topics of callers to the Dutch AIDS information helpline by gender.

Topic	Total %	Male %	Female %	$\chi^2$	<i>P</i> Value
Personal risk of HIV transmission	44.0	51.1	34.4	8.62	< .01
HIV transmission in general	30.4	37.1	21.4	8.79	< .01
HIV Testing	20.4	19.1	22.1		ns
Information package	10.4	1.1	22.9	38.55	< .001
Other STD's	5.5	7.3	3.1		ns
Dutch AIDS Foundation	1.9	1.7	2.3		ns
Other topic	12.3	9.0	16.8	4.26	< .05

Table 2

*Means and standard deviations for evaluation of telephone calls.*

Evaluation topic	Mean	SD	Range
Satisfaction with telephone call	4.63	.61	1 - 5
Tone of conversation	4.70	.58	1 - 5
Length of conversation	2.05	.22	1 - 3
Adequate answer on question	4.63	.64	1 - 5
Listening skills	4.82	.42	1 - 5
Conversation and counseling skills	4.21	.70	1 - 5
Satisfaction with Dutch Information Helpline	8.32	.95	1 - 10