

# Are Patients Talking to Their Physicians about AIDS?

BARBARA GERBERT, PhD, BRYAN T. MAGUIRE, BSc, AND THOMAS J. COATES, PhD

**Abstract:** We conducted a nationwide telephone survey of a random sample of United States adults in summer 1988 (n = 2000, response rate = 75 percent) to find out if physicians were providing education and counseling to the public about AIDS and AIDS prevention. Within the previous five years, 94 percent had seen a physician but only 15 percent had discussed AIDS even though most said they would not object to discussing the topic. AIDS-related conversations are not commonplace in physician's offices and in most cases (72 percent) patients are the initiators of such conversations. (*Am J Public Health* 1990; 80:467-468.)

## Introduction

Physicians have been encouraged to discuss AIDS (acquired immunodeficiency syndrome) risk reduction with all of their patients and to take sexual histories to help all patients identify and modify risky behavior;<sup>1,2</sup> physicians are well placed to provide this service, as approximately 76 percent of Americans see a physician annually.<sup>3</sup> Moreover, 60 percent of respondents to a National Center for Health Statistics survey<sup>4</sup> said that they would ask a physician if they wanted specific information about AIDS.

## Methods

Telephone interviews were completed with a representative sample of 2000 civilian, non-institutionalized United States adults (75 percent response rate) between July 5 and August 19, 1988. In selecting the sample, the country was divided into two strata by AIDS prevalence and subjects were drawn using a random-digit-dial procedure. There were 1000 respondents from each stratum.

The data reported here are based on weighted estimates for the two strata combined. Given the stratification design effect (the ratio of the variance of design used to that of a simple random sample of the same size), the effective sample size for population estimates was 1320.<sup>5</sup> The confidence intervals in Table 1 reflect this design effect.

Subjects were selected randomly within households. To partially correct for known biases in the selection of respondents resulting from random digit dialing,<sup>6</sup> responses were weighted by the number of persons in the household and the inverse of the number of telephone lines in the household. To correct for small differences between the demographic characteristics of the sample and census estimates, data were also weighted by race, sex, and age.

The interview contained 70 items concerning public perceptions about AIDS and health care. Items about phy-

From the Division of Behavioral Sciences, University of California-San Francisco, School of Dentistry (Gerbert, Maguire); the Center for AIDS Prevention Studies, UCSF (all authors); and the Division of General Internal Medicine, UCSF School of Medicine (Coates). Address reprint requests to Barbara Gerbert, PhD, Department of Dental Public Health & Hygiene, UCSF School of Dentistry, 707 Parnassus Avenue, Rm D1012, San Francisco, CA 94143-0754. This paper, submitted to the Journal May 31, 1989, was revised and accepted for publication October 18, 1989.

**TABLE 1—Percent of Patient Respondents Who Had Discussed AIDS with their Physician by Demographic Characteristics (with 95% confidence intervals)**

|  | N*   | %    | 95%<br>Confidence<br>Interval |
|--|------|------|-------------------------------|
| Total  | 1876 | 15.4 | 12.9, 17.9                    |
| Sex  |      |      |                               |
| Male   | 865  | 14.1 | 11.2, 17.0                    |
| Female   | 1011 | 16.4 | 13.6, 19.2                    |
| Race   |      |      |                               |
| White (non-Hispanic)                             | 1496 | 14.5 | 12.3, 16.7                    |
| Black  | 180  | 22.2 | 14.7, 29.7                    |
| Age (years)                                      |      |      |                               |
| 18-29  | 511  | 17.2 | 13.2, 21.2                    |
| 30-49  | 789  | 17.5 | 14.2, 20.8                    |
| 50+  | 576  | 10.8 | 7.7, 13.9                     |
| Income (household per annum)                     |      |      |                               |
| < \$20,000                                       | 478  | 13.0 | 9.3, 16.7                     |
| \$20,000-34,999                                  | 535  | 13.8 | 10.2, 17.4                    |
| \$35,000-49,999                                  | 320  | 16.3 | 11.3, 21.3                    |
| \$50,000+  | 220  | 20.9 | 14.3, 27.5                    |
| AIDS Prevalence in SMSA                          |      |      |                               |
| High   | 943  | 19.4 | 16.9, 21.9                    |
| Low  | 933  | 11.3 | 9.3, 13.3                     |
| What are your chances of getting the AIDS virus? |      |      |                               |
| High/Medium                                      | 96   | 27.1 | 16.2, 38.0                    |
| Low  | 660  | 17.4 | 13.8, 21.0                    |
| None   | 1090 | 12.8 | 10.4, 15.2                    |
| Knows HIV-infected person                        | 372  | 26.9 | 21.4, 32.4                    |
| Does not know HIV-infected person                | 1474 | 12.4 | 10.3, 14.5                    |
| Knows risk group member                          | 761  | 23.4 | 19.7, 27.1                    |
| Does not know risk group member                  | 1050 | 10.0 | 7.8, 12.2                     |

\*Subtotals which do not add to 1876 exclude "don't know" and "no answer" respondents for those items.

sician counseling are presented in the Appendix. Ninety-four percent of respondents recalled seeing a physician at least once in the past five years; 76 percent of respondents had visited a physician in the past year. Data reported here are from respondents who had seen a physician in the past five years, referred to later in this paper as "patients." Further details of the methods have been reported in earlier papers.<sup>7-9</sup>

## Results

Only 15 percent of patients recalled ever talking to their physicians about AIDS. The demographic groups more likely to have discussed AIDS were young people, Blacks, people with a high household income, or people who lived in an SMSA with high AIDS prevalence (Table 1). In addition, those for whom AIDS was personally most salient, for example those who knew someone with AIDS or HIV (human immunodeficiency virus) infection, were more likely to have talked to their physician about the disease (Table 1). Of the 240 patients who had talked to their physician about AIDS, physicians initiated the conversations in only 28 percent of the cases.

Patients had discussed a variety of AIDS-related issues with their physicians; sexual behavior and safe sex were discussed most frequently. Risk of transmission from blood transfusions

and other health care-related risks were also discussed frequently, as were concerns about casual transmission.

Among patients who had not yet spoken with their physician about AIDS, 56 percent did not express a preference for or against talking to their doctor about AIDS, only 17 percent said they would not want to discuss the topic with their doctor, and 27 percent wanted to do so. Younger respondents (32 percent) and Blacks (37 percent) were more likely to want to talk to their physician about AIDS.

Since many AIDS-related concerns have to do with sex, patient-physician interaction regarding sexuality may influence the frequency of discussions regarding AIDS. Most patients (78 percent) did not recall having been asked questions about their sexual behavior at their physician's offices. Only 7 percent of respondents reported they would be unwilling to answer a physician's questions about their sexual behavior; 59 percent said they would be glad for the opportunity to talk to their physician about sex. Most patients (67 percent) said they would be very comfortable talking with their physician about AIDS.

The AIDS-related topics which patients said they would like to discuss are listed in Table 2. Transmission of AIDS, especially by casual contact and in medical settings, heads the list. Although 59 percent of patients said that they would go to their physician or HMO (health maintenance organization) for more specific information on AIDS, respondents reported getting most of their information from television (mentioned by 67 percent), newspapers (56 percent), and magazines (36 percent).

*Discussion*

Relatively few patients had discussed AIDS with their physician. This is consistent with previous reports based on physician surveys<sup>10</sup> and more limited patient surveys.<sup>11</sup> Previous studies<sup>12</sup> have also documented the infrequency of sexual history taking. It should be noted, however, that the denominator for the history taking and AIDS counseling items includes all patients who have had any physician contact over the past five years. Many of these contacts may not have been appropriate situations for these preventive practices. Although fallibility of patient recall may also lead patients to underestimate counseling by physicians, if patients do not remember having discussed AIDS, it is unlikely that the

counseling was effective. Although the methodology of this survey may yield conservative estimates of physicians' actual counseling efforts, the evidence remains that AIDS-related discussions are not commonplace in physicians' offices.

**APPENDIX**

**Survey Items Concerning Patients' Experience and Opinions about AIDS Education by Physicians**

- Have you ever talked to your medical doctor about AIDS?
- Who started the conversation . . . you or the doctor?
- What was it about AIDS that you and your doctor discussed? (*open-ended*)
- Would you want to talk to your doctor about AIDS, would you prefer not to discuss this with your doctor, or do you not care?
- What is it about AIDS that you would like to discuss with your doctor? (*open-ended*)
- If you were to talk with your doctor about AIDS, should they start the conversation, or would you rather start it yourself?
- Have you ever been asked questions at the doctor's office about your sexual behavior?
- It has been suggested that medical doctors should ask their patients about their sexual behavior as part of a routine health history taking. If your doctor asked you about *your* sexual behavior, would you be glad for the opportunity to share this information with your doctor, be somewhat uncomfortable but answer the questions anyway, or would you be unwilling to talk about these matters with your doctor?
- How comfortable would you feel . . . (*insert a through c*) . . . very comfortable, mostly comfortable, somewhat uncomfortable, or very uncomfortable?
  - a. if you had a conversation with your doctor about AIDS
  - b. if your doctor asked you questions about your sexual behavior
  - c. if your doctor asked you questions about your use of intravenous drugs
- According to medical authorities, the following groups of adults are at highest risk for AIDS: people who received blood transfusions between 1977 and 1985, intravenous drug users, men who have sex with other men, and anyone who has had many sex partners. Do you know anyone that might be a member of these groups?
- Have you ever personally known anyone with AIDS or the AIDS virus?

**ACKNOWLEDGMENTS**

The authors wish to thank John Sumser and Katherine Chamberlin for their editorial comments. This study was funded by a grant from the California Universitywide Task Force on AIDS, and by the National Institutes of Mental Health and the National Institute on Drug Abuse Center grant #MH42459. This paper was presented at the V International Conference on AIDS, Montreal, Canada, June 6-9, 1989.

**REFERENCES**

1. Watkins JD: Interim Report of the Presidential Commission on the Human Immunodeficiency Virus Epidemic: Chairman's recommendations—Part I. *J Acquired Immunodeficiency Syndrome* 1988; 1:69-103.
2. American College of Physicians and the Infectious Diseases Society of America: Acquired immunodeficiency syndrome. *Ann Intern Med* 1986; 104:575-581.
3. National Center for Health Statistics, Dawson DA, Adams PF: Current estimates from the National Health Interview Survey, United States, 1986. *Vital and Health Statistics Series 10*, No. 164. DHHS Pub No (PHS) 87-1592. Washington, DC: Public Health Service, 1987.
4. National Center for Health Statistics, Dawson DA, Thornburg OT: AIDS knowledge and attitudes for December 1987. Provisional data from the National Health Interview Survey. *Advance Data From Vital and Health Statistics*. No. 153, DHHS Pub No (PHS) 88-1250. Hyattsville, MD: Public Health Service, 1988.
5. Frankel M: Sampling theory. *In*: Rossi PH, Wright JD, Anderson AB (eds): *Handbook of Survey Research*. New York: Academic Press, 1983.
6. Lavrakas PJ: *Telephone Survey Methods: Sampling, Selection, and Supervision*. Newbury Park, CA: Sage Publications, 1987.
7. Gerbert B, Maguire B: Public acceptance of the surgeon general's brochure on AIDS. *Public Health Rep* 1989; 104:130-133.
8. Gerbert B, Maguire B, Spitzer S: Patients' attitudes toward dentistry and JADA 1989; 119:16 5-215. AIDS: Implications for dentists' response to the

**TABLE 2—AIDS Topics People Wanted to Discuss with Their Physician according to the 419 Patient-respondents (27%) Who Said They Wanted to Talk to Their Physician about AIDS but Had Not Yet Done so**

| Topics for Discussion                          | %    |
|--|------|
| AIDS transmission—general information          | 23.9 |
| Risk from casual contact                       | 21.0 |
| Contagion in medical settings                  | 11.7 |
| Sexual behavior, safe sex                      | 9.5  |
| Prevention/avoid contracting AIDS              | 7.9  |
| Treatment for AIDS                             | 7.6  |
| Infection control                              | 6.7  |
| Blood transfusions                             | 5.7  |
| Symptoms of disease                            | 5.7  |
| If doctor knew of anything not widely reported | 5.3  |
| Antibody testing                               | 3.8  |
| If physician was treating people with AIDS     | 3.6  |
| Scientific questions                           | 3.3  |
| Drug use                                       | 3.1  |
| Distrust of mass media                         | 2.9  |

- epidemic. *JADA* 1989; 119:165-215.
9. Gerbert B, Maguire BT, Hulley SB, Coates TJ: Physicians and AIDS: What patients think about HIV in medical practice. *JAMA* 1989; 262:1969-1972
10. Lewis CE, Freeman HE: The sexual history and counseling practices of

- primary care physicians. *West J Med* 1987; 147:165-167.
11. Mathews WC, Linn LS: AIDS prevention in primary care clinics: Testing the market. *J Gen Intern Med* 1989; 4:34-38.
12. Ende J, Rockwell S, Glasgow M: The sexual history in general medical practice. *Arch Intern Med* 1984; 144:558-561.

## Screening for Chlamydial Cervicitis in a Sexually Active University Population

C. KEVIN MALOTTE, DRPH, EDWARD WIESMEIER, MD, AND KRISTIN J. GELINEAU, RN, NP, MN

**Abstract:** Enzyme-linked immunoabsorbent assays to detect chlamydial cervicitis were performed on samples from 1,320 sexually active university women. Seventy-five (prevalence 5.7 percent) had positive tests. Demographic, history, symptom, and physical examination variables were insufficient to predict infection accurately. We conclude that screening during routine visits with this population is cost-effective. (*Am J Public Health* 1990; 80:469-471.)

### Introduction

*Chlamydia trachomatis* is the most prevalent sexually transmitted disease in the United States.<sup>1</sup> Until recently, diagnosis of chlamydial infection was handicapped by the lack of an inexpensive diagnostic test. *Chlamydia* is easily treated with antibiotics, but left untreated can persist for an indefinite time, and result in severe sequelae. While symptomatic women have a higher prevalence rate, most women with cervical infections have few or no symptoms.<sup>2</sup>

### Methods

Routine screening for chlamydial infection of all sexually active students receiving physical examinations at the University of California-Los Angeles, Student Health Service Women's Clinic was implemented in June 1986. Some women were seen for initial or yearly examinations (routine visit group) and some women were seen for symptoms, partner symptoms, or previous problem follow-up (symptom/problem group).

Specimens were tested using Chlamydiazyme™ kits run according to the manufacturer's directions. Women with positive tests were typically tested with doxycycline 100 milligrams twice daily for seven days. Sexual abstinence was encouraged during treatment; partners were referred for treatment. Test of cure using culture was requested approximately three weeks after treatment.

A total of 1,320 women were screened between June 24 and October 24, 1986. Data were abstracted from the medical records of all but 19 of these women. Data collected included: age, marital status, race/ethnicity, reason for the visit, gynecologic history, present contraceptive use and level of

current sexual activity, current symptoms, partner symptoms, physical findings, test results, and clinician diagnosis.

Chlamydiazyme test result was cross tabulated with these variables; prevalence odds ratios (POR) with 95% confidence intervals (CI) were calculated. All variables found to have POR with a lower limit on the 95% CI greater than one were subsequently used in a logistic regression (BMDPLR).<sup>3</sup>

### Results

Of the 1,320 women tested, 75 (5.7 percent) had positive Chlamydiazyme tests. Thirty-six (5.0 percent) of the 724 routine visit group women had positive Chlamydiazyme tests while 39 (6.8 percent) of the 577 symptom/problem group women had positive tests.

Seventy-four of the 75 women with positive tests at their first study period visit returned for treatment; 65 of the 74 treated women returned for a culture test of cure. All 65 were successfully treated.

Table 1 lists those variables which were related to Chlamydiazyme result for the total sample. In the logistic regression, only five of the 13 variables were independently related to a positive test.

Recognizing that a logistic regression equation is likely to be too complicated for most clinicians to apply, a risk-factor index similar to those used by others<sup>4,5</sup> was constructed by summing presence of positive findings on each of the five independently related variables. Thus, women with none of the findings were assigned a score of 0, and women with all five of the findings were assigned a score of five. Table 2 lists sensitivity, specificity, and predictive values using different scores on the index as cutpoints.

Parallel analyses to those conducted for the total sample were conducted separately for women who were seen for routine visits, and those who were seen for symptom/symptom visits. Results were not substantially different, but are available upon request.

### Discussion

Prevalence rates of chlamydial infection among female college students have ranged between less than 5 percent to nearly 10 percent.<sup>6-14</sup> The 5.7 percent prevalence of cervical infection we observed is at the low end of this range. However, our prevalence among women age 22 years and younger in our study was 8.7 percent; the relatively large number of older students in our study may account for the lower rate.

The literature is divided over whether medical history and examination are adequate to identify infection.<sup>12,14</sup> In our study, if only women who had one or more of the risk factors found to be independently related to a positive test had been screened, 694 women would not have been screened at a significant savings in resources, and 81 percent of the women

Address reprint requests to C. Kevin Malotte, DrPH, Research Coordinator, Student Health Service, and Adjunct Assistant Professor, School of Public Health, A2-130 Center for Health Sciences, University of California-Los Angeles, Los Angeles, CA 90024-1703. Dr. Wiesmeier is Director of Student Health Service and Associate Clinical Professor, School of Medicine, UCLA; Ms. Gelineau is Nurse Practitioner, Student Health Service, UCLA. This paper, submitted to the *Journal* February 9, 1989, was revised and accepted for publication August 2, 1989.