# ABSTRACT

The pervasiveness of stigma in the United States related to the acquired immunodeficiency syndrome (AIDS) was assessed in telephone interviews with a general adult sample (n = 538) and an African-American sample (n = 607). Most respondents manifested at least some stigma. African Americans expressed greater support for policies separating persons with AIDS from others and a stronger desire to avoid these persons, whereas Whites expressed more negative feelings toward them and a greater willingness to blame them for their illness. Regardless of race, men were more likely than women to support policies such as quarantine and to say that they would avoid persons with AIDS. (Am J Public Health. 1993;83:574-577)

# Public Reactions to AIDS in the United States: A Second Decade of Stigma

Gregory M. Herek, PhD, and John P. Capitanio, PhD

# Introduction

The stigma associated with the acquired immunodeficiency syndrome (AIDS) has threatened the physical and psychological well-being of people perceived to be infected with the human immunodeficiency virus (HIV). It also has impaired society's ability to provide treatment to people with AIDS and to prevent further transmission of HIV.<sup>1-4</sup> The research described here measured the pervasiveness of stigmatizing attitudes and beliefs concerning AIDS among the American public as the epidemic's second decade began.

### Methods

# Respondents

Data were collected from two samples. Random-digit dialing techniques were used to draw a general adult sample from the population of all English-speaking adults (at least 18 years of age) residing in households with telephones within the 48 contiguous states. Of the 768 households in the sample, 653 (85.0%) were successfully enumerated (i.e., information was obtained about the name and race of all household members over age 18). Of these, interviews were completed with 538 (82.4%), yielding a response rate (enumeration rate  $\times$  completion rate) of 70.1%. The cases were poststratified by race and gender with 1990 census data.

The second sample consisted of English-speaking African-American adults. It was drawn from census tracts where the density of Black households was 30% or higher. Of the residential households in the sample, 1343 (88.2%) were enumerated. Excluding non-Black households left 794 eligible homes, from which 607 interviews (76.4%) were completed. Because one goal of our project is to monitor reactions to AIDS among Black Californians, this group was oversampled, representing 263 of the 607 completed interviews. The response rate for the African-American sample was 67.4%. The cases were poststratified by gender and geographic region with 1990 census data.

# **Procedures**

Computer-assisted telephone interviews were conducted by the staff of the Survey Research Center at the University of California at Berkeley between September 12, 1990, and February 13, 1991. No limit was set on the number of recontact attempts. Upon reaching an adult living in the household, the interviewer enumerated the first name and race of each household member 18 years or older. The interviewee was selected randomly from this list.

#### Measures

Four different manifestations of stigma were assessed: (1) negative feelings toward persons with AIDS (the extent to which respondents felt angry at them, afraid of them, and disgusted by them), (2) support for coercive AIDS-related policies (quarantine and making public the names of people with AIDS),5 (3) blame for persons with AIDS, and (4) intentions to avoid a person with AIDS in four different situations. Beliefs about HIV transmission through five types of casual contact and beliefs that AIDS is inherently linked to so-called "risk groups" (even in the absence of HIV infection) were also assessed. A detailed description of the methods, samples, and survey items is available from the first author.

# Results

As shown in Table 1, various aspects of AIDS-related stigma are manifested by a significant minority of the American public. In addition, a disturbingly large proportion of respondents believed that HIV can be transmitted through various kinds of casual contact (Table 2). Many

The authors are with the Department of Psychology, University of California at Davis.

Requests for reprints should be sent to Gregory M. Herek, PhD, Psychology Department, University of California, Davis, CA 95616-8686.

This paper was submitted to the Journal May 5, 1992, and accepted with revisions November 23, 1992.

appeared not to understand the mechanisms through which HIV is transmitted; instead, they seemed to equate male homosexual behavior or drug use with HIV transmission, even in situations where such transmission would be impossible.

Similar trends were observed in the African-American sample, as shown in Tables 3 and 4. For comparison purposes, the responses from Whites in the general adult sample (n=436) are also presented. Because different methods were used to draw the samples, these comparisons should be interpreted with caution.

It appears that Blacks were more concerned about possible transmission of HIV, whereas Whites held more negative feelings toward persons with AIDS. Blacks expressed greater support for measures that would keep people with AIDS separate from others (quarantine, publishing names) and were more likely to say that they would avoid people with AIDS under various circumstances. In line with this pattern, Blacks also were more likely to overestimate the risk of HIV transmission in a variety of situations; this finding is consistent with data from other survey research.6 Whites, in contrast, expressed more negative feelings toward persons with AIDS and a greater willingness to blame them for their illness.

To assess overall trends in these differences, five Likert-type scales<sup>7</sup> were constructed by summing responses to conceptually related items. Scale scores were analyzed with two-way analyses of covariance; race (Black, White) and gender (female, male) were the independent variables. Respondents' highest level of formal education (coded on a six-point ordinal scale) was entered as a covariate.

Comparison of the scale scores (Table 5) confirmed the general pattern observed for the individual items. Blacks scored significantly higher than Whites on the coercive policies scale, whereas Whites scored higher on the negative feelings scale and the individual blame item. Blacks also scored significantly higher on both scales measuring beliefs about HIV transmission. A significant racial difference was not observed for the avoidant behaviors scale.

As shown in Table 5, significant gender differences were observed in scale scores for coercive policies and avoidant behaviors. (A series of  $\chi^2$  analyses of individual items revealed that, regardless of race, men were significantly [P < .05] more likely than women to support quarantine [46.4% of African-American men and 41.4% of White men, compared with

Item	Stigmatizing Response, %	Nonstigmatizing Response, %	
Feelings toward persons with AIDS <sup>a</sup>			
Angry	27.1	72.1	
Disgusted	27.7	71.6	
Afraid	35.7	63.6	
Coercive attitudes <sup>b</sup> "People with AIDS should be legally separated from others to protect the public health"  "The names of people with AIDS should be made public so that others can avoid them"	35.7 30.2	63.9 68.9	
Blame <sup>b</sup> "People who got AIDS through sex or drug use have gotten what they deserve"	20.5	79.1	
Avoidant behavioral intentions <sup>c</sup> If a close friend had AIDS If you had a young child attending school where one of the students was known to	12.5	83.8	
have AIDS If you had an office job where one of the	15.8	81.3	
men working with you developed AIDS If the owner of a neighborhood grocery store	20.4	77.9	
where you like to shop had AIDS	47.1	51.3	

Note. n = 538. AIDS = acquired immunodeficiency syndrome. Cases were poststratified by gender and racial category (White, Black, other) with 1990 census data. For the avoidant behavioral intention items, respondents were offered alternatives that represented avoidant and supportive responses in each situation.

Stigmatizing responses were represented by "would avoid"; nonstigmatizing responses were represented by "would support."

	Infection	Infection Not
	Likely, %	
Casual contact: How likely is it that a person could get AIDS or AIDS virus infection through:		
Kissing person with HIV on cheek	18.5	80.5
Sharing drinking glass with person with HIV	47.8	51.7
Using public toilets	34.3	65.2
Being coughed on or sneezed on by person with HIV	45.4	53.9
Mosquito or other insect bites	50.1	48.0
"Risk group" beliefs Think of two healthy homosexual men—neither of whom is infected with the AIDS virus. Now suppose they have sexual intercourse. If they use condoms, what would you say is the likelihood that at least one of them will become infected?	19.5	77.3
Now suppose the same two healthy men have sexual intercourse but this time they do not use condoms	46.2	46.6
Now think of someone who uses drugs intravenously (and who is not a homosexual). If this person does not share needles, what do you think this person's chances are of		
becoming infected with the AIDS virus?	15.1	83.9

Note. n=538. HIV = human immunodeficiency virus; AIDS = acquired immunodeficiency syndrome. For the casual contact items, the *infection likely* category combines the responses "very likely," "somewhat likely," and "somewhat unlikely"; the *infection not likely* category combines the responses "very unlikely" and "impossible." For the items concerning homosexuality and drug use, the *infection likely* category combines the responses "almost sure to get infected" and "has a fairly strong chance"; the *infection not likely* category combines the responses "very little chance" and "no chance."

aStigmatizing responses were represented by "very" or "somewhat"; nonstigmatizing responses were represented by "not at all" or "a little."

bStigmatizing responses were represented by "agree strongly" or "agree somewhat"; nonstigmatizing responses were represented by "disagree strongly" or "disagree somewhat."

	Black Sample (n = 607), %	White Sub- sample (n = 436 %
Feelings		
Angry Very/somewhat	21.1	28.0
A little/not at all	78.2	71.0
Disgusted	10.2	71.0
Very/somewhat	23.0	29.6
A little/not at all	75.9	69.5
Afraid		
Very/somewhat	35.1	36.1
A little/not at all	63.6	63.0
Coercive attitudes Legally separated		
Agree	40.1	33.1
Disagree	58.5	66.4
Make names		
public		
Agree	40.0	29.6
Disagree	59.3	69.5
Blame		
Gotten what they		
deserve	40.5	
Agree	16.5	20.5
Disagree	82.2	79.0
Avoidant behavioral		
intentions		
Close friend	440	
Avoid	14.3 81.4	11.7
Support Child attending	81.4	84.4
school		
Avoid	18.1	14.6
Support	76.7	82.7
Office coworker	70.7	Olai. F
Avoid	21.1	19.2
Support	75.6	79.4
Neighborhood		,
grocer		
Avoid	55.6	47.4
Support	40.9	51.2

35.8% of African-American women and 25.6% of White women] and to report that they would avoid a neighborhood grocer with AIDS [64.8% of African-American men and 57.9% of White men, compared with 51.7% of African-American women and 39.1% of White women]. In addition, White men [24.7%] were more likely than White women [14.7%] to say that they

The African-American sample was post-stratified by gender and, because of the California over-

sample, by geographic region with 1990 census

	Black	White	
	Sample (n = 607), %	Subsample (n = 436), %	
Casual contact			
Kissing on cheek			
Likely/somewhat unlikely	23.3	15.9	
Impossible/very unlikely	74.8	82.9	
Drinking glass			
Likely/somewhat unlikely	54.6	45.6	
Impossible/very unlikely	42.8	53.8	
Public toilets			
Likely/somewhat unlikely	48.2	31.2	
Impossible/very unlikely	49.5	68.2	
Cough or sneeze			
Likely/somewhat unlikely	55.1	44.4	
Impossible/very unlikely	43.3	55.1	
Insect bites			
Likely/somewhat unlikely	61.2	48.5	
Impossible/very unlikely	33.9	49.3	
'Risk group" beliefs			
Two uninfected homosexual men with condoms			
Almost sure/strong chance	25.1	15.5	
No chance/very little chance	70.6	80.7	
Two uninfected homosexual men without condoms			
Almost sure/strong chance	57.7	41.9	
No chance/very little chance	28.0	51.4	
Intravenous drug use without sharing needles			
Almost sure/strong chance	27.3	12.9	
No chance/very little chance	71.3	86.0	

would avoid a coworker with AIDS or that they would encourage their child to avoid a schoolmate with AIDS [20.1% vs 10.4%].) Significant gender by race interactions indicated that White women were the least likely of any group to anticipate that they would avoid persons with AIDS or to overestimate the risks of casual contact. No gender differences were observed for the other stigma scales.

Finally, an overall index of stigma was computed by counting the total number of stigmatizing responses each person gave to the items concerning negative feelings, coercive policies, blame, and avoidant behaviors. The distributions of scores on this 10-item index were similar for Blacks and Whites. Women tended to score lower than men. Only 16% of Blacks (19% of women, 13% of men) and 22% of Whites (25% of women, 18% of men) did not give any stigmatizing responses. A full 35% of Black respondents (35% of women, 36% of men) and 32% of Whites (27% of women, 37% of men) gave stigmatizing responses for at least one third of the index items, and 17% of Blacks (13% of women, 21% of men) and 16% of Whites (16% of women, 19% of men) gave stigmatizing responses for at least one half of the items.

# Discussion

The results indicate that AIDS-related stigma remains a serious problem as the United States enters the second decade of the epidemic. Reducing stigma and fostering compassion toward persons with AIDS should be integral components of AIDS education and prevention programs.

# Acknowledgments

The research described in this paper was supported by grants to the first author from the National Institute of Mental Health (R01 MH43253) and the University of California Universitywide AIDS Research Program (R90-D068).

Some of the data in this paper were presented at the Eighth International AIDS Conference, Amsterdam, The Netherlands, July 1992

We thank Karen Garrett, Tom Piazza, and Linda Stork of the Survey Research Center, University of California at Berkeley, for

	Black Women (n = 388)		Black Men (n = 219)		White Women (n = 235)		White Men (n = 201)		F Values (P)		
	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Race	Sex	Race × Sex
Negative feelings											
$(\alpha = .60)$	5.39 <sup>b</sup>	0.130	5.53 <sup>b</sup>	0.142	5.67 <sup>a</sup>	0.156	5.85 <sup>a</sup>	0.158	15.61 (.000)	NS	NS
Coercive policies							h.				
$(\alpha = .61)$	4.47 <sup>ad</sup>	0.108	4.74 <sup>ac</sup>	0.129	3.87 <sup>bd</sup>	0.118	4.25 <sup>bc</sup>	0.131	6.69 (.01)	6.94 (.009)	NS
Blame (single item)	1.63 <sup>b</sup>	0.052	1.70 <sup>b</sup>	0.065	1.71 <sup>a</sup>	0.064	1.79 <sup>a</sup>	0.066	6.11 (.014)	NS	NS
Avoidant behaviors											
$(\alpha = .72)$	1.03 <sup>de</sup>	0.071	1.17 <sup>ce</sup>	0.079	0.68 <sup>df</sup>	0.069	1.17 <sup>ce</sup>	0.089	NS	13.68 (.001)	6.27 (.05)
Casual contact beliefs											
$(\alpha = .82)$	14.17 <sup>a</sup>	0.291	13.63 <sup>a</sup>	0.321	11.36 <sup>be</sup>	0.322	12.36 <sup>bf</sup>	0.327	22.17 (.000)	NS	8.23 (.004)
"Risk group" beliefs											
$(\alpha = .69)$	6.67 <sup>a</sup>	0.119	6.98 <sup>a</sup>	0.117	5.66 <sup>b</sup>	0.128	5.64 <sup>b</sup>	0.144	56.01(.000)	NS	NS

their assistance throughout the project and Jim Wiley for his comments on an earlier version of the manuscript.

This paper is dedicated to the memory of Dr. John Martin.

# References

- Herek GM, Glunt EK. An epidemic of stigma: public reactions to AIDS. Am Psychol. 1988;43:886–891.
- 2. Herek GM. Illness, stigma, and AIDS. In: Costa P, VandenBos, GR, eds. *Psycholog-*
- ical Aspects of Serious Illness. Washington, DC: American Psychological Association; 1990:103–150.
- Gerbert B, Maguire BT, Bleecker T, Coates TJ, McPhee SJ. Primary care physicians and AIDS: attitudinal and structural barriers to care. *JAMA*. 1991;266:2837–2842.
- Price V, Hsu M. Public opinion about AIDS policies: the role of misinformation and attitudes toward homosexuals. *Public Opin*ion Q. 1992;56:29–52.
- 5. Herek GM, Glunt EK. AIDS-related atti-

- tudes in the United States: a preliminary conceptualization. *J Sex Res.* 1991;28:99–123
- Hardy AM. AIDS knowledge and attitudes for October-December 1990: provisional data from the National Health Interview Survey. Vital Health Stat. 1991; No. 204. DHHS publication PHS 91-1250.
- Anderson AB, Basilevsky A, Hum DPJ. Measurement: theory and techniques. In: Rossi PH, Wright JD, Anderson AB, eds. Handbook of Survey Research. New York, NY: Academic Press; 1983;231–287.