A B S T R A C T

Without scientifically obtained data and published reports, it is difficult to raise awareness and acquire adequate resources to address the health concerns of lesbian, gay, and bisexual Americans. The Department of Health and Human Services must recognize gaps in its information systems regarding sexual orientation data and take immediate steps to monitor and eliminate health disparities as delineated in Healthy People 2010.

A paper supported by funding from the Office of the Assistant Secretary for Planning and Evaluation explores these concerns and suggests that the department (1) create work groups to examine the collection of sexual orientation data; (2) create a set of guiding principles to govern the process of selecting standard definitions and measures; (3) recognize that racial/ethnic, immigrant-status, age, socioeconomic, and geographic differences must be taken into account when standard measures of sexual orientation are selected; (4) select a minimum set of standard sexual orientation measures; and (5) develop a long-range strategic plan for the collection of sexual orientation data. (Am J Public Health. 2001;91: 876-882)

Sexual Orientation Data Collection and Progress Toward Healthy People 2010

Randall L. Sell, ScD, and Jeffrey Blake Becker

One of the greatest threats to the health of lesbian, gay, and bisexual (LGB) Americans is the lack of scientific information about their health. Service providers and researchers working with LGB people long ago recognized important and unique health concerns within these populations; unfortunately, they also recognized the difficulty of raising awareness and acquiring adequate resources to address these concerns in the absence of scientifically obtained data and published reports. 1-3 Without adequate information on the health of LGB Americans, measurable advances in civil rights and basic health will be difficult

The federal government—in particular, the Department of Health and Human Services (DHHS)—must recognize the serious gaps in its information systems and databases regarding sexual orientation data. DHHS is charged with monitoring the health of the US population and eliminating health disparities between different segments of the population, including, according to Healthy People 2010, "differences that occur by gender, race or ethnicity, education or income, disability, geographic location, or sexual orientation." Sexual orientation is specifically included in 29 Healthy People 2010 objectives spanning 10 focus areas: access to care, educational and community-based programs, family planning, HIV, immunization and infectious disease, injury and violence prevention, mental health and mental disorders, sexually transmitted diseases, substance abuse, and tobacco use.

The creators of Healthy People 2010 required evidence of a health disparity before sexual orientation could be included in an objective. Implicit in the 29 objectives for which sexual orientation is included, therefore, is a belief on the part of DHHS that disparities exist. More important, however, by recognizing health disparities associated with sexual orientation in these objectives, the government accepts responsibility for monitoring and achieving these objectives.

Healthy People 2010 will have a profound positive impact on the health of all Americans, in particular LGB Americans, if properly implemented. The biggest hurdle to realization of the 29 objectives for which sexual orientation is included is successful integration of sexual orientation data collection into existing information systems used to monitor progress toward these objectives (Table 1). This is a challenging task, but now is the time to undertake such an effort.

The Office of the Assistant Secretary for Planning and Evaluation (OASPE) has begun to explore these issues and has contracted for the writing of a paper to review current sexual orientation data collection practice at DHHS, examine the history of defining and measuring sexual orientation, and recommend future directions for sexual orientation data collection in order to monitor Healthy People 2010. Here we summarize findings from this paper, focusing on (1) collection of sexual orientation data in the Youth Risk Behavior Surveillance System and (2) how DHHS can play a leadership role in the collection of sexual ori-

There are many related and critical issues not covered here. For example, neither this commentary nor the full paper to OASPE deals with the collection of gender identity data or sexual orientation data at the local level. The collection of gender identity data was not examined because gender identity and transgender health issues were not addressed in Healthy People 2010, which was the impetus for this work. However, issues related to gender identity should be given equal attention. Likewise, the paper focuses on data collection at the federal level to assist monitoring of Healthy People 2010 objectives at DHHS, but equal or perhaps even greater attention should be given to data collection at the state, county, and city levels, where sexual orientation data are also of great value. Further, the OASPE paper focuses on the 12 data systems used to monitor the 29 objectives that recognize health disparities related to sexual orientation. There are, however, 178 additional data sets used to monitor other Healthy People 2010 objectives. Under "Future Directions," below, we recommend a process by which additional data systems can be identified by experts and appropriately modified to examine LGB health concerns.

Current Practice in Healthy People 2010 Information Systems

Healthy People 2010 states that "systematically collecting, analyzing, interpreting, dis-

The authors are with the Mailman School of Public Health, Columbia University, New York, NY.

Requests for reprints should be sent to Randall L. Sell, ScD, Mailman School of Public Health, Columbia University, 600 W 168th Street, New York, NY 10032 (e-mail: rls39@columbia.edu).

This commentary was accepted February 2, 2001.

		Objectives Measured ^a	
Information System	Agency	HP 2010 Focus Areas	HP 2010 Objective (Summary)
National Health Interview Survey	Centers for Disease Control and Prevention (CDC)	Access to quality health care	 Increase the proportion of persons with health insurance Increase the proportion of persons appropriately counseled about health behaviors Increase the proportion of persons who have a specific source of ongoing care
		7. Educational and community-based programs 27. Tobacco use	 12. Increase the proportion of older adults who have participated during the preceding year in at least one organized health promotion activity 1. Reduce tobacco use by adults
National Household	Substance Abuse	18. Mental health and	 Increase smoking cessation attempts by adult smokers Increase the proportion of adults with mental disorders
Survey on Drug Abuse	and Mental Health Services Administration	mental disorders 26. Substance abuse	 who receive treatment 9. Increase the age and proportion of adolescents who remain alcohol and drug free 10. Reduce past-month use of illicit substances 15. Reduce the proportion of adolescents who use inhalant 17. Increase the proportion of adolescents who perceive great risk associated with substance abuse
		27. Tobacco use	Increase the average age of first use of tobacco products by adolescents and young adults
Youth Risk Behavior Surveillance System	CDC	 Mental health and mental disorders 	2. Reduce the rate of suicide attempts by adolescents
		25. Sexually transmitted diseases	 Increase the proportion of adolescents who abstain from sexual intercourse or use condoms if currently sexually active
		27. Tobacco use	Reduce tobacco use by adolescents Increase tobacco use cessation attempts by adolescent smokers
Monitoring the Future Survey	National Institute on Drug Abuse	26. Substance abuse	11. Reduce the proportion of persons engaging in binge drinking of alcoholic beverages16. Increase the proportion of adolescents who disapprove of substance abuse
		27. Tobacco use	17. Increase adolescents' disapproval of smoking
National Crime Victimization Survey	US Department of Justice, Bureau of Justice Statistics	15. Injury and violence prevention	34. Reduce the rate of physical assault by current or former intimate partners35. Reduce the annual rates of rape and attempted rape36. Reduce sexual assault other than rape
National Survey of Family Growth	CDC	9. Family planning	11. Increase the proportion of young adults who have received formal instruction on reproductive health issues before age 18 y
		13. HIV	Increase the proportion of sexually active persons who use condoms
National Health and Nutrition Examination Survey	CDC	27. Tobacco use	Reduce the proportion of nonsmokers exposed to environmental tobacco smoke
National College Health Risk Behavior Survey	CDC	Educational and community-based programs	Increase the proportion of college and university students who receive information from their institutions on each of the 6 priority health-risk behavior areas
HIV/AIDS Surveillance System	CDC	13. HIV	Reduce AIDS among adolescents and adults
National Notifiable Disease Surveillance System	CDC	14. Immunizations and infectious disease	6. Reduce hepatitis A prevalence
STD Surveillance System	CDC	25. Sexually transmitted diseases	3. Eliminate sustained domestic transmission of primary and secondary syphilis
NIMH Epidemiologic Catchment Area program	National Institutes of Mental Health	18. Mental health and mental disorders	Increase the proportion of adults with mental disorders who receive treatment

seminating, and using health data is essential to understanding the health status of a population, to assessing progress, and to planning effective prevention programs."⁴ To date, however, sexual orientation data have been collected in DHHS information systems and databases only infrequently. Of the 12 systems used to monitor the Healthy People 2010 objectives, only 6 have had experience in measuring some aspect of sexual orientation: the National

^aFocus areas and objectives (numbered within each focus area) are numbered as in Healthy People 2010.⁴

Household Survey on Drug Abuse (NHSDA), the National Crime Victimization Survey (NCVS), the HIV/AIDS Surveillance System, the National Health and Nutrition Examination Survey (NHANES), the National Survey of Family Growth (NSFG), and the Youth Risk Behavior Surveillance System (YRBSS).

The first 3 of these (NHSDA, NCVS, and the HIV/AIDS Surveillance System) should be commended for their efforts; however, their assessment of sexual orientation as required to monitor Healthy People 2010 is clearly inadequate. First, the NHSDA included a 25question self-administered "personal behaviors" supplement in 1996 in which respondents were asked the gender of the partner(s) with whom they had had vaginal, oral, or anal sex. These questions were asked in only 1 year and were discontinued. Data from this survey have been used to show that there is a "small risk among homosexually active populations in 1year psychiatric morbidity and use of mental health care services."6

Second, the NCVS has been asking since 1995 about victimization based on perceived sexual orientation. The survey asks whether vandalism committed against the respondent's household "was motivated by dislike for . . . people because of their sexual orientation." This wording, however, includes dislike of gays, lesbians, bisexuals, and heterosexuals, and responses to this question should in no way imply the sexual orientation of any members of the household.

Third, the HIV/AIDS Surveillance System, in which new cases of HIV/AIDS are reported to the Centers for Disease Control and Prevention, distributes cases into categories including "men who have sex with men," a category that indicates only sexual behavior. It should be noted that, since 1990, the HIV/AIDS Surveillance System has included the Supplement to HIV/AIDS Surveillance survey, which provides information to supplement case reports. Though supplemental in nature, this populationbased survey does include measurements of sexual orientation identity as well as same-sex behavior (A. Lansky, Centers for Disease Control and Prevention, HIV/AIDS Surveillance System, oral communication, November 3, 2000).

NHANES began collecting sexual orientation—identity data in 2000, and NSFG is planning to pretest sexual orientation identity and attraction questions in 2001, but results are not yet available (D. Brody, MPH, NHANES Program, National Center for Health Statistics, oral communication, April 2001; A. Chandra, PhD, National Survey of Family Growth, National Center for Health Statistics [achandra@cdc.gov], e-mail, November 2000). At this time the two surveys are considering different questions; if these questions remain unchanged, comparisons across surveys will be difficult.

It should be noted that NHANES included a question on same-sex sexual behavior for males in NHANES III. Data from NHANES III have been used to show that compared with men reporting only female

partners, men who reported same-sex partners had greater lifetime prevalence rates of suicide symptoms but had no greater likelihood of meeting criteria for lifetime diagnosis of other affective disorders.⁸

The YRBSS has had the most diverse experience in collecting sexual orientation data. This survey will be used to monitor Healthy People 2010 objectives related to suicide attempts, abstinence from sexual intercourse, and tobacco use and cessation attempts among LGB youths. Although the YRBSS does not currently include sexual orientation among its core set of questions, a number of states and cities have addressed this omission by adding an array of sexual orientation identity, sexual behavior, and sexual attraction questions to measure sexual orientation (Table 2). Unfortunately, this diversity in measurement of sexual orientation has resulted in inadequately specified population parameters, differing criteria for research and analysis, and compromised comparison of results.

Nevertheless, YRBSS data from the localities that measure sexual orientation show that whatever the dimension of sexual orientation measured (sexual orientation identity, sexual behavior, or sexual attraction), sexual minority youths have higher rates of suicide attempts, victimization in school violence, drug and alcohol abuse, early onset of sexual behavior, eating disorders, and teenage pregnancy than other youths. 9–19 As surveys of adolescents in Connecticut, Wisconsin, Oregon, and Seattle have demonstrated, even a measure of sexual orientation as indirect as perceived homosexual sexual orientation elicits disturbing correlations with deleterious health outcomes. 17,18

When survey instruments and research designs use different sexual orientation criteria, vital comparisons of data between localities become difficult because some population parameters overlap or are mutually exclusive. Because of the variation in its sexual orientation measures, and the alarming data obtained from any one of these measures, the YRBSS exemplifies the need for immediate implementation of agreed-upon and standardized measures.

Future Directions

The 6 information systems described above, which have collected sexual orientation data, are in a much better position to fulfill the monitoring requirements of Healthy People 2010 than the 6 that have not collected sexual orientation data. These information systems, while working to continually improve their own data collection methods, can also share their experiences and assist other information systems in assessing sexual orientation.

Unfortunately, there is no consensus between information systems—both within and outside DHHS-or among researchers as to how to assess sexual orientation. This lack of consensus is not unexpected, given that sexual orientation is only beginning to be considered an important topic of health research and, consequently, an important variable for inclusion in health research studies. Sexual orientation is also, like race and ethnicity or socioeconomic status, a fairly complex construct to measure, making the selection of concise, valid, and reliable measures appropriate for monitoring health additionally challenging. DHHS can take a leadership role in advancing this field by undertaking a number of important activities through the Data Council and the National Committee on Vital and Health Statistics.

 The Data Council and the National Committee on Vital and Health Statistics should create work groups on sexual orientation data to examine the collection of sexual orientation data in DHHS data collection and reporting activities.

These work groups could undertake a number of very important activities, including creation of a continuously updated inventory of DHHS databases that collect or have collected sexual orientation data, as well as a library of research on LGB health indicating which additional information systems should collect such data. They could also provide guidance to ensure that sensitive sexual orientation data could not be misused or abused, and especially to ensure that data collected by DHHS or other entities would not be used to stigmatize populations.

2. These work groups should create a set of guiding principles governing a review process for the development and selection of standard definitions and measures of sexual orientation.

In the process of developing standard definitions and measures for the collection of racial and ethnic data, the Office of Management and Budget recognized the need for a set of principles to govern the review and selection process.²⁰ These principles, with little modification, can be applied to the process of developing and selecting standard measures of sexual orientation: (1) sexual orientation categories should not be interpreted as primarily biological or genetic in nature, but must be examined in the context of social and cultural characteristics of the populations; (2) respect for individual dignity and privacy should guide the collection of data; and (3) concepts and terminology, insofar as is feasible, should reflect clear and generally understood definitions that can achieve broad public acceptance. The principles, of course, should be open to public review, just as the process of developing stan-

Area	Year(s)	Sexual Orientation Questions	Possible Responses
United States	1999, 2000	With whom have you had sexual intercourse? ^a	(a) I have not had sexual intercourse with anyone (b) Females (c) Males (d) Females and males
Boston and Massachusetts	1993	64. The person(s) with whom you have had sexual contact is (are):	(a) Female(s) (b) Male(s) (c) Female(s) and male(s) (d) I have not had sexual contact with anyone
	1995	67. The person(s) with whom you have had sexual contact is (are):	(a) I have not had sexual contact with anyone (b) Female(s) (c) Male(s) (d) Female(s) and male(s)
		68. Which of the following best describes you?	(a) Heterosexual (straight) (b) Bisexual (c) Gay or lesbian (d) Not sure (e) None of the above
	1997	7. Which of the following best describes you?	(a) Heterosexual (straight) (b) Gay or lesbian (c) Bisexual (d) Not sure
		69. The person(s) with whom you have had sexual contact is (are):	(a) I have not had sexual contact with anyone (b) Female(s) (c) Male(s) (d) Female(s) and male(s)
	1999	9. Which of the following best describes you?	(a) Heterosexual (straight) (b) Gay or lesbian (c) Bisexual (d) Not sure
		72. During your life, the person(s) with whom you have had sexual contact is (are):	(a) I have not had sexual contact with anyone (b) Female(s) (c) Male(s) (d) Female(s) and male(s)
Maine	1995, 1997, 1999	94. The person(s) with whom you have had sexual contact during your life is (are):	(1) Never had sexual contact (2) Female (3) Male (4) Males and females
Oregon	1997	24. In the past 30 days, what were you harassed about? (If more than one reason, what was the most upsetting or offensive to you?)	I was not harassed Race or national origin Unwanted sexual attention or comments Perceived sexual orientation (gay/lesbian/bisexual Physical disability Other not listed Don't know why I was harassed
	1999	12. During the past 12 months, have you ever been harassed at school (or on the way to or from school) because someone thought you were gay, lesbian or bisexual?	·
Philadelphia	1999	63. With whom have you had sexual intercourse?	(a) I have not had sexual intercourse with anyone (b) Females (c) Males (d) Females and males
San Diego	1999	With whom have you had sexual intercourse?	(a) I have not had sexual intercourse with anyone (b) Females (c) Males (d) Females and males
San Francisco	1997	62. Have you ever had sexual intercourse with a male?63. Have you ever had sexual intercourse	(a) Yes (b) No (a) Yes
	1999	with a female? 67. With whom have you had sexual intercourse?	 (b) No (a) I have not had sexual intercourse with anyone (b) Females (c) Males (d) Females and males
Seattle	1995	23. Has anyone ever made offensive comments or attacked you because of your sexual orientation/preference—at school or on the way to or from school?	Yes No

June 2001, Vol. 91, No. 6 American Journal of Public Health 879

Area	Year(s)	Sexual Orientation Questions	Possible Responses	
		58. How would you describe your sexual orientation/preference?	Heterosexual—attracted to the opposite sex Bisexual—attracted to both sexes Homosexual (gay or lesbian)—attracted to the same sex Not sure	
	1999	25. Has anyone ever made offensive comments or attacked you because they thought you were gay or lesbian—at school or on your way to or from school?	Yes No	
		46. How would you describe your sexual orientation?	Heterosexual—attracted to the opposite sex Bisexual—attracted to both sexes Homosexual (gay or lesbian)—attracted to the same sex Not sure	
Vermont	1995	 55. During your life, with how many males have you had sexual intercourse? 56. During your life, with how many females have you had sexual intercourse? 57. During the past three months, with how many males have you had sexual intercourse? 58. During the past three months, with how many females have you had sexual intercourse? 		
	1997	78. The persons you have had sexual activity with are:	(1) I have not had sexual activity with anyone(2) Females(3) Males(4) Females and males	
	1999	69. The persons you have had sexual intercourse with are:	(1) I have never had sexual intercourse(2) Females(3) Males(4) Females and males	
	2001	67. With whom have you had sexual intercourse?	(1) I have never had sexual intercourse(2) Females(3) Males(4) Females and males	
Wisconsin	1997	21. Have you ever been threatened or hurt because someone thought you were gay, lesbian or bisexual?	(a) Yes (b) No (c) I'm not sure	
	1999	23. Have you ever been threatened or hurt because someone thought you were gay, lesbian or bisexual?	(a) Yes (b) No (c) I'm not sure	

^aThis question has never appeared on the core set of questions in the national YRBSS model. However, the Centers for Disease Control and Prevention distributes "optional questions for consideration by state and local education and health agencies." The wording of these questions is often based on wording that states have used in previous years. In 1999 and 2000, this wording appeared on the optional list.

dard measures can and should be open to public review.

3. These work groups should recognize that differences in race and ethnicity, immigrant status, age, socioeconomic status, and geographic location must be taken into account when selecting standard measures of sexual orientation and assessing the validity and reliability of these measures.

The validity and reliability of measures can be affected by many factors, including race, ethnicity, immigration status, age, socioeconomic status, and geographic location. For example, a study of American Indian adolescents, using questions to assess sexual orientation first tested in a general sample of Minnesota adolescents, found a higher nonresponse rate than was found in the Minnesota sample. The

researchers concluded that this difference "raises questions about the cultural relevance of the survey method, and underscores the need for development of more culturally sensitive research tools and methods." Further supporting this conclusion, the researchers found that there was a significantly higher prevalence of homosexual, bisexual, and "unsure" responses among the American Indian adolescents than in the general sample.

The selection of measures of sexual orientation must therefore account for this minimal set of personal and population characteristics, and studies should be conducted to understand the complex relationships between them. The limitations of any measures chosen or recommended should be understood as fully as possible and explicitly recognized.

4. The work groups should assist in the selection of a minimum set of standard sexual orientation measures, including questions and response categories, and examine the implications of these categories on data tabulation and analysis. This should be done in conjunction with a review process that is fully open to the public.

Standard sexual orientation categories will allow comparisons of data across information systems. Because sexual orientation data have infrequently been included in DHHS information systems and databases, the development of standards is important to avoid future data incompatibilities and problems with interpretation. When it is necessary for DHHS to make a coordinated response to major health and social service issues, the department could

American Journal of Public Health

June 2001, Vol. 91, No. 6

Survey, Area, and Year ^a	Sexual Orientation Questions	Possible Responses
Adolescent Health Survey (Minnesota; 1987) and National American Indian Adolescent Health Survey (55 tribes in 12 Indian Health Service areas; 1991)	Which of the following best describes your feelings?	(a) 100% heterosexual (attracted to persons of the opposite sex) (b) Mostly heterosexual (c) Bisexual (equally attracted to men and women) (d) Mostly homosexual (e) 100% gay/lesbian (attracted to persons of the same sex) (f) Not sure
	2. Have you ever had any kind of sexual experience with a male? Have you ever had any kind of sexual experience with a female?	(a) Yes (b) No (a) Yes (b) No
	Which of the following best describes your feelings?	 (a) I am <i>only</i> attracted to people of the <i>same</i> sex as mine, and I will only be sexual with persons of the same sex (b) I am <i>strongly</i> attracted to people of the <i>same</i> sex as mine, and most of my sexual experiences will be with persons of the same sex as mine (c) I am <i>equally</i> attracted to men and women and would like to be sexual with both (d) I am <i>strongly</i> attracted to people of the opposite sex, and most of my sexual experiences will be with persons of the opposite sex (e) I am only attracted to people of the opposite sex, and I will only be sexual with persons of the opposite sex
	When you think or daydream about sex, do you think about	(a) Males (b) Females (c) Both
Voices of Connecticut Youth (1996, 1999)	22k. Have you done the following things in the past <i>year</i> (12 months) Been made fun of because of your sexual orientation?	(a) No (b) Yes, once (c) More than once

benefit from standard and reliable sexual orientation data across agencies.

Development of the categories and questions should be based on sound methodological research assessing their validity and reliability. Research should include (1) cognitive studies conducted regarding the differences described in recommendation 3 to provide guidance on the interpreted meaning, wording, and ordering of potential questions and sexual orientation categories; (2) pretests of surveys to examine the implications of using different versions of questions; (3) studies to examine the impact of the mode of data collection (e.g., in person, by telephone, self-administered questionnaires) on the validity and reliability of the questions and categories; (4) studies of the importance and implications to validity and reliability of item nonresponse to potential questions and sexual orientation categories; (5) studies examining the implications of measures for data tabulation and analysis; and (6) studies examining the skills and training required for persons responsible for collecting and maintaining sexual orientation data.

The review process should be conducted with participation from the public, which must be afforded the opportunity to offer suggestions for the standards. Further, as the needs for sexual orientation data are many and var-

ied, representatives of agencies implementing major DHHS information systems, as well as representatives from state, tribal, or other local agencies responsible for data collection, should be included at all stages of the process.

5. Perhaps most important, the work groups should develop a long-range strategic plan for the collection of sexual orientation data that includes periodic oversampling or screening sampling of LGB people. They should also recognize and address the budgeting requirements of integrating sexual orientation data collection into information systems and databases.

The development of a strategic plan, like all other activities carried out in this area by DHHS, should be conducted with consultation from the communities being examined. The primary purpose of a long-range strategic plan would be to identify all DHHS information systems in which sexual orientation data should be included and to develop a strategy and timeline to address these information systems. The strategic plan should consider all statistical data collection systems (national health surveys, vital statistics, etc.), disease registries, administrative records, research and evaluation, and applications, grants, and contracts.

The strategic plan should recognize the need for data to estimate and characterize the burden of disease, plan and evaluate programs and interventions, inform policy development, and formulate and justify budgets. Further, it should recognize the need to develop special sampling strategies if sample sizes are not large enough to adequately represent each group. In particular, the plan should consider oversampling in areas already in the sampling frame that are known to have a higher frequency of the subgroup, or screening sampling units to obtain a target sample. Finally, the plan should recognize the importance of producing national, state, and local reports using these data; provide encouragement and support for data analysis and research by outside organizations and researchers; and make the data accessible to the public.

A coordinated and thoughtful approach to adding sexual orientation variables to existing data systems, as recommended above, could take many years. However, if the activities outlined above are undertaken, the 29 objectives addressing health disparities based on sexual orientation in Healthy People 2010 will be appropriately monitored. DHHS can then undertake the activities necessary to eliminate health disparities. Of course, if the above activities are undertaken, the monitoring of Healthy People 2010 will only be one valuable outcome.

More important, the overall health of LGB people will be assessed and for the first time, providers and researchers concerned with the health of these populations will be able to raise awareness and acquire the necessary resources to address important health concerns.

An excellent example of the power of such data comes from Vermont, which began collecting sexual orientation data in its Youth Risk Behavior Survey (YRBS) in 1995. Fifty-nine of Vermont's 60 supervisory unions, each made up of one or more school districts, participate in the YRBS in what is virtually a census, and the data are distributed to local communities. Before same-sex sexual behavior questions were added to the YRBS, local school officials were largely unaware of the needs of LGB youth. Local school administrators requested staff training on LGB youth issues when the YRBS data revealed the presence and immediate concerns of sexual minority youth. Vermont's commissioner of education subsequently convened a meeting with sexual minority youth, resulting in the establishment of the Safe Schools for Lesbian, Gay, Bisexual, Transgender, and Questioning Youth program, with a part-time coordinator position. YRBS data in subsequent years prompted the state to expand this program and integrate it into a school safety program for all students under the coordination of full-time staff (S. Donahue, MEd, Unit Chief for Community Resources, State of Vermont Social Services, oral communication, January 25, 2001). □

Acknowledgments

Work on this commentary was supported by contract SA-00-0396 from the Office of the Assistant Secretary for Planning and Evaluation, DHHS.

References

1. Dean L, Meyer IH, Robinson K, et al. Lesbian, gay, bisexual, and transgender health: findings

- and concerns. *J Gay Lesbian Med Assoc*. 2000; 4:101–151.
- Sell RL, Petrulio C. Sampling homosexuals, bisexuals, gays and lesbians for public health research: a review of the literature from 1990– 1992. *J Homosex*. 1996;30(4):31–47.
- Solarz AL, ed. Lesbian Health: Current Assessment and Directions for the Future. Washington, DC: National Academy Press; 1999.
- Healthy People 2010. Conference edition. Washington, DC: US Dept of Health and Human Services; January 2000. No. 017-001-00547-9.
- Anderson JE, Wilson RW, Barker P, Doll L, Jones TS, Holtgrave D. Prevalence of sexual and drug-related HIV risk behaviors in the US adult population: results of the 1996 National Household Survey on Drug Abuse. *J Acquir Immune Defic Syndr Hum Retrovirol*. 1999;21: 148–156
- Cochran SD, Mays VM. Relationship between psychiatric syndromes and behaviorally defined sexual orientation in a sample of the US population. *Am J Epidemiol*. 2000;151:516–523.
- US Department of Justice, Bureau of Justice Statistics. National Crime Victimization Survey, NCVS1—basic screen questionnaire. Available at: http://www.ojp.usdoj.gov/bjs/pub/pdf/ncvs1.pdf. Accessed November 11, 2000.
- Cochran SD, Mays VM. Lifetime prevalence of suicide symptoms and affective disorders among men reporting same-sex sexual partners: results from NHANES III. Am J Public Health. 2000; 90:573–578.
- Boston Public Health Commission. Media Release Board of Boston Public Health Commission approves recommendations on GLBT health. 2000. Available at: http://www.tiac.net/ users/bdph/campaign/062100.htm. Accessed November 11, 2000.
- Faulkner AH, Cranston K. Correlates of samesex sexual behavior in a random sample of Massachusetts high school students. Am J Public Health. 1998;88:262–266
- Garofalo R, Wolf RC, Kessel S, Palfrey J, DuRant R. The association between health risk behaviors and sexual orientation among a school-based sample of adolescents. *Pediatrics*. 1998:101:895–902.
- Garofalo R, Wolf RC, Wissow LS, Woods ER, Goodman E. Sexual orientation and risk of sui-

- cide attempts among a representative sample of youth. *Arch Pediatr Adolesc Med.* 1999;153: 487–493.
- Massachusetts Department of Education. 1999
 Massachusetts Youth Risk Behavior Survey.
 Available at: http://www.doe.mass.edu/lss/ yrbs99/toc.html Accessed November 11, 2000.
- Vermont Department of Health Office of Alcohol and Drug Abuse Programs. 1999 Vermont Youth Risk Behavior Survey statewide report. Available at: http://www.state.vt.us/adap/ 1999YRBS/YRBSST991.htm#SexualBehavior. Accessed November 11, 2000.
- DuRant R, Krowchuk D, Sinal S. Victimization, use of violence, and drug use at school among male adolescents who engage in samesex sexual behavior. *J Pediatr*. 1998;133: 113–118.
- French SA, Story M, Remafedi G, Resnick MD, Blum RW. Sexual orientation and prevalence of body dissatisfaction and eating disordered behaviors: a population-based study of adolescents. *Int J Eat Disord*. 1996;19:119–126.
- Oregon Health Division Center for Health Statistics and Vital Records. Suicidal behavior, a survey of Oregon high school students, 1997.
 Available at: http://www.ohd.hr.state.or.us/chs/teensuic/results.htm. Accessed November 11, 2000.
- Reis B, Saewyc E. Eighty-three thousand youth: selected findings from eight populationbased studies as they pertain to anti-gay harassment and the safety and well-being of sexual minority students. Available at: http://www. safeschools-wa.org/quant_cont.html. Accessed November 11, 2000.
- Remafedi G, French S, Story M, Resnick MD, Blum R. The relationship between suicide risk and sexual orientation: results of a populationbased study. *Am J Public Health*. 1998;88: 57–60
- Office of Management and Budget, Office of Information and Regulatory Affairs. Revisions to the standards for the classification of federal data on race and ethnicity. *Federal Register*. 1997;62:58781–58790.
- Saewyc EM, Skay CL, Bearinger LH, et al. Demographics of sexual orientation among American-Indian adolescents. *Am J Orthopsychiatry*. 1998;68:590–600.

882 American Journal of Public Health June 2001, Vol. 91, No. 6