LETTERS

Democratic Republic of Congo. *Am J Public Health.* 2011;101(6):1060–1067.

2. Ackerson LK, Kawachi I, Barbeau E, Subramanian SV. Effects of individual and proximate educational context on intimate partner violence: a population-based study of women in India. *Am J Public Health.* 2008;98(3): 507–514.

3. Cunradi CB, Caetano R, Clark C, Schafer J. Neighborhood poverty as a predictor of intimate partner violence among White, Black, and Hispanic couples in the United States: a multilevel analysis. *Ann Epidemiol.* 2000;10(5):297–308.

4. Boyle MH, Georgiades K, Cullen J, Racine Y. Community influences on intimate partner violence in india: Women's education, attitudes towards mistreatment and standards of living. *Soc Sci Med.* 2009;69(5): 691–697.

5. Koenig MA, Stephenson R, Ahmed S, Jejeebhoy J, Campbell J. Individual and contextual determinants of domestic violence in north India. *Am J Public Health*. 2006;96(1):132–138.

 Rani M, Bonu S. Attitudes toward wife beating: a cross-country study in asia. *J Interpers Violence*. 2008; 24(8):1371–1397.

7. Uthman OA, Lawoko S, Moradi T. 2009. Factors associated with attitudes towards intimate partner violence against women: A comparative analysis of 17 sub-Saharan countries. *BMC Int Health Hum Rights.* 9 (20):14.

8. Linos N, Khawaja M, Al-Nsour M. Women's autonomy and support for wife beating: Findings from a population-based survey in Jordan. *Violence Vict.* 2010;25(3):409–419.

PETERMAN ET AL. RESPOND

We thank Linos and Kawachi for drawing attention to the importance of communitylevel and other contextual factors in predicting violence against women. The variation by province in our study results do suggest upstream social determinants of violence,¹ including but not limited to exposure to conflict, level of economic development, and access to services. Unfortunately, the Demographic and Health Survey (DHS) data did not collect cluster-level data to match community-level characteristics to our sample, and therefore we are unable to operationalize indicators beyond a regional fixed-effect. However, we would add a word of caution to the use of attitudes and social norms around spousal violence as a predictor of an individual woman's experience of violence because of the simultaneity bias in modeling this relationship. While household-level attitudes toward spousal violence may determine an individual's

experience of violence or an intimate partner's perpetration of violence,^{2,3} experience of violence will most certainly also have an effect on attitudes toward spousal violence.4,5 In this instance, both causation and reverse causation occur simultaneously, biasing the estimated coefficients. As Hindin et al. note, it is particularly difficult to sort out the causal ordering of these two outcomes using crosssectional surveys.⁶ The use of community-level averages (or non-self community averages) of attitudes on violence may lessen the simultaneity bias, but it is still present. Furthermore, at least two of the articles cited by Linos and Kawachi model violence against women as a function of household-level attitudes7,8 and therefore suffer from the aforementioned bias-as do four of the studies we cited.²⁻⁵ Therefore, although we support Linos and Kawachi's call to study community-level factors associated with violence against women, we believe further research must be conducted to account for simultaneity bias and improve upon measurement of norms versus concrete environmental influences rather than simply looking at associations, which may paint an incomplete or incorrect picture.

> Amber Peterman, PhD Tia Palermo, PhD Caryn Bredenkamp, PhD

About the Authors

Amber Peterman is with the Poverty, Health, and Nutrition Division, International Food Policy Research Institute, Washington, DC. Tia Palermo is with the Graduate Program in Public Health, School of Medicine, Stony Brook University, Stony Brook, NY. Caryn Bredenkamp is with the Human Development Network, World Bank, Washington, DC.

Correspondence should be sent to Amber Peterman, PhD, Poverty, Health, and Nutrition Division, International Food Policy Research Institute, 2033 K St, NW, Washington DC, 20006 (e-mail: a.peterman@cgiar.org). Reprints can be ordered at http://www.ajph.org by clicking on the "Reprints/Eprints" link.

This letter was accepted August 25, 2011. doi:10.2105/AJPH.2011.300439

Note. The opinions and conclusions expressed in the letter are entirely those of the authors and do not necessarily represent the views of the institutions with which they are affiliated.

Contributors

All authors contributed to the drafting and revisions of the letter.

Acknowledgments

The authors received no funding for this letter and had no conflicts of interests.

References

1. Peterman A, Palermo T, Bredenkamp C. Estimates and determinants of sexual violence in the Democratic Republic of Congo. *Am J Public Health.* 2011;101(6): 1060–1067.

2. Abrahams N, Jewkes R, Laubscher R, Hoffman M. Intimate partner violence: prevalence and risk factors for men in Cape Town, South Africa. *Violence Vict.* 2006; 21(2):247–264.

3. Gage AJ. Women's experience of intimate partner violence in Haiti. *Soc Sci Med.* 2005;61(2):343– 364.

4. Khawaja M, Linos N, El-Roueiheb Z. Attitudes of men and women towards wife beating: findings from Palestinian refugee camps in Jordan. *J Fam Violence*. 2008;23(3):211–218.

5. Lawoko S. Factors associated with attitudes toward intimate partner violence: a study of women in Zambia. *Violence Vict.* 2006;21(5):645–656.

6. Hindin MJ, Kishor S, Ansara DL. Intimate Partner Violence Among Couples in 10 DHS Countries: Predictors and Health Outcomes. DHS Analytical Studies 18. Calverton, MD: Macro International Inc; 2008.

 Boyle MH, Georgiades K, Cullen J, Racine Y. Community influences on intimate partner violence in India: Women's education, attitudes towards mistreatment and standards of living. *Soc Sci Med.* 2009;69(5): 691–697.

8. Cunradi CB, Caetano R, Clark C, Schafer J. Neighborhood poverty as a predictor of intimate partner violence among White, Black, and Hispanic couples in the United States: a multilevel analysis. *Ann Epidemiol.* 2000;10(5):297–308.

SEXUALITY AND HOMELESSNESS IN LOS ANGELES PUBLIC SCHOOLS

Recently, Corliss et al.¹ published important findings demonstrating the disproportionate numbers of sexual minority youths who experience homelessness in Massachusetts. Because of great variations in homelessness by region, we would like to add to this body of evidence with similar data from Los Angeles, California. We collected data on sexuality and homelessness experiences in conjunction with the 2011 administration of the Youth Risk Behavior Survey (YRBS) in the Los Angeles Unified School District (LAUSD). Among LAUSD students, 37% of lesbian, gay, bisexual, transgender, or unsure-identifying youths and 22% of heterosexual youths reported

LETTERS

Previous 12 Months by Sexual Orientation: Supplement to the Youth Risk Benavior Survey, Los Angeles, CA, 2011				
Location of Homeless Episode	Heterosexual Proportion of Sample, % (n = 1577)	Nonheterosexual Proportion of Sample, % (n=209)	LAUSD Homeless Heterosexual Students, Estimated No.	LAUSD Homeless Nonheterosexual Students, Estimated No.
Youth or adult shelter	10.5	9.7	15040	1841
Public place	5.3	6.2	7592	1177
Abandoned building	2.1	4.8*	3008	911
Outside	5.5	7.0	7878	1329
Underground	1.7	2.6	2435	493
Stranger's home	4.2	14.5***	6016	2752
Any	21.9	36.6**	31 370	6947

TABLE 1—Proportion of Youths Aged 12-18 Years Reporting Homelessness Episodes of at Least 1 Night's Duration Within Previous 12 Months by Sexual Orientation: Supplement to the Youth Risk Behavior Survey, Los Angeles, CA, 2011

Note. LAUSD = Los Angeles Unified School District. Sample size was n = 1786.

P*<.05, *P*<.01, ****P*<.001

having spent at least one night homeless in the previous 12 months.

We created a supplemental questionnaire administered in conjunction with the 2011 YRBS to LAUSD students. One item assessed sexual orientation:

What do you consider your sexual orientation? 1) Homosexual (gay or lesbian), 2) bisexual, 3) heterosexual (straight), 4) transgender, 5) questioning/unsure.

A second item addressed homelessness, using the questions from the landmark study by Ringwalt et al.² that assessed the national prevalence of youth homelessness:

During the past 12 months, have you spent the night in any of the following places? (check all that apply) 1) Youth or adult shelter, 2) public place, 3) abandoned building, 4) outside in a park, under a bridge, or rooftop, 5) subway or other public place underground, 6) with someone you did not know.

Table 1 presents the breakdown of homelessness experience by sexuality and clearly shows that non-heterosexually identifying youths reported significantly more homelessness.

LAUSD is the second largest public school system in the United States. There are 162 225 high school students enrolled.³ According to our data, we estimated that 38 317 high school students in the LAUSD system experienced at least one night of homelessness in the past 12 months. This technique for assessing homelessness is an undercount—missing those youths whose housing instability leads to absentee days during data collection. The majority of students who experienced homelessness were unidentified by the school district.⁴ It has been well-established that youths of any sexual orientation who return to stable housing quickly are at greatly reduced risk for the negative health outcomes associated with homelessness.⁵ While LAUSD's Homeless Education Program works to advance academic achievement through social and educational programs, this program needs more funding and a mechanism to quickly identify newly homeless youths.

> Eric Rice, PhD Anthony Fulginiti, MSW Hailey Winetrobe, MPH Jorge Montoya, PhD Aaron Plant, MPH Timothy Kordic, MA

About the Authors

Eric Rice, Anthony Fulginiti, and Hailey Winetrobe are with the School of Social Work, University of Southern California, Los Angeles, CA. Jorge Montoya and Aaron Plant are with Sentient Research, Los Angeles, CA. Timothy Kordic is with the Student Health and Human Services, Health Education Programs, Los Angeles Unified School District, Los Angeles, CA.

Correspondence should be sent to Eric Rice, 1149 S. Hill St. Suite 360, Los Angeles, CA 90015 (e-mail: ericr@usc.edu). Reprints can be ordered at http://www.ajph.org by clicking the "Reprints/Eprints" link.

This letter was accepted August 5, 2011. doi:10.2105/AJPH.2011.300411

Contributors

E. Rice was responsible for the study concept and wrote the first draft. A. Fulginiti conducted statistical analyses. H. Winetrobe conducted the literature review and edited the letter. J. Montoya and A. Plant collected and processed the data and edited the drafts. T. Kordic was also responsible for the study concept and edited the drafts.

Acknowledgments

Data collection was supported by the Centers for Disease Control and Prevention (award 5U87DP001201-04).

Human Participant Protection

The survey on which this letter was based was administered in conjunction with the Los Angeles Unified School District (LAUSD) Youth Risk Behavior Survey (YRBS) approved by LAUSD, Health Education Programs, as required by the Cooperative Agreement with the Centers for Disease Control and Prevention, Division of Adolescent School Health. The institutional review board approval for the analysis was obtained from the University of Southern California.

References

1. Corliss HL, Goodenow CS, Nichols L, Austin SB. High burden of homelessness among sexual-minority adolescents: findings from a representative Massachusetts high school sample. *Am J Public Health*. 2011:101(9): 1683–1689.

2. Ringwalt CL, Greene J, Robertson M, McPheeters M. The prevalence of homelessness among adolescents in the United States. *Am J Public Health*. 1998;88(9):1325–1329.

3. Los Angeles Unified School District. Fingertip Facts 2010-2011. Available at: http://notebook.lausd.net/pls/ ptl/docs/PAGE/CA_LAUSD/LAUSDNET/OFFICES/ COMMUNICATIONS/COMMUNICATIONS_FACTS/ 10-11FINGERTIPFACTS_FINAL.PDF. Accessed July 25, 2011.

4. Los Angeles Unified School District. Homeless Education Unit. Available at: http://notebook.lausd.net/ portal/page?_pageid=33, 168847&_dad=ptl&_schema= PTL_EP. Accessed July 25, 2011.

 Milburn NG, Rosenthal D, Rotheram-Borus MJ, et al. Newly homeless youth typically return home. J Adolesc Health. 2007;40(6):574–576.