

For the full sample, adjusted estimates showed no statistically significant differences between study groups in the mean number of hospitalizations (0.2; 95% CI, 0.2-0.3), emergency department visits (0.7; 95% CI, 0.4-0.9), or outpatient care visits (12.2; 95% CI, 10.0-14.4) in the 3 years following enrollment. No differences in these outcomes were found among the subgroup of women who reported experiencing partner violence in the year before enrollment.

**Discussion** | Screening women for partner violence and providing a resource list did not influence the number of hospitalizations, emergency department, or outpatient care visits compared with women only receiving a resource list or receiving no intervention over 3 years. Our data do not support providing a partner violence resource list with or without computerized screening of women in urban health care settings to improve health outcomes.

Our trial has the advantages of a large sample, random assignment, a true control group, blinded assessment of outcomes, and 3-year follow-up. Generalizability of the findings are limited by the urban setting; exclusion of participants without telephones, those accompanied by partners or children older than 3 years at the time of their visit, non-English or non-Spanish speaking; and the limited number of college-educated and white, Asian, or Native American participants in the sample. Health visits for participants using health services outside the county system were not captured.

The consistency of the results at 1 year and 3 years contributes to greater confidence in the findings. These null findings are consistent with other trials in primary care settings.<sup>5</sup> Research should focus on more intensive interventions among women already identified as abused.<sup>6</sup>

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## Sexual Violence and HIV Infection Associated With Adolescent vs Adult Entry Into the Sex Trade in Mexico

Adolescents migrating from Central America and Mexico to the United States are at risk for being trafficked into the sex industry in Mexico's northern border cities.<sup>1</sup> Research from other regions indicates that those entering the sex trade as adolescents (vs as adults) are more likely to experience sexual violence and human immunodeficiency virus (HIV) risk during initiation to the sex trade<sup>2</sup> and to become infected with HIV.<sup>3</sup>

Apart from 1 study among injection drug users,<sup>4</sup> no research exists on the prevalence of minors in the sex industry in Latin America or their subsequent risk for violence and HIV infection.

**Methods** | Between March 2013 and January 2014, female sex workers aged 18 years or older were recruited from Tijuana and Ciudad Juarez, Mexico, via time-location sampling, a method used to simulate random-cluster sampling for studies of hard-to-reach populations.<sup>5</sup> Indoor and street sex work venues were randomly sampled based on mapping of all venues, with probability of selection proportional to venue size. Of 200 venues identified, 25 did not permit recruitment; venue type did not differ based on permission for recruitment.

Confidential computer-assisted surveys were completed to assess prevalence of adolescent (ages 16-17 years) and early adolescent (ages <16 years) entry to the sex trade and associations of age at entry with violence to force commercial sex,

**Table 1. Characteristics and Associations With Age at Entry Into Commercial Sex Trade Among Female Sex Workers in Tijuana and Ciudad Juarez, Mexico**

	No. (%) of Female Sex Workers <sup>a</sup>				P Value <sup>b</sup>
	Total Sample	Age at Entry, y			
		<16	16-17	≥18	
No. of women	603	71 (11.8)	82 (13.6)	450 (74.6)	
Age during interview, mean (SD), y	34.3 (10.4)	32.4 (9.1)	32.7 (10.9)	34.9 (10.4)	.049
Duration of sex work, mean (SD), y	11.7 (9.7)	18.2 (9.3)	16.1 (11.0)	9.9 (8.8)	<.001
Education					
≤Primary school	267 (44.3)	42 (59.2)	38 (46.3)	187 (41.6)	.004
Some secondary school	236 (39.1)	26 (36.6)	25 (30.5)	185 (41.1)	
Beyond secondary school	100 (16.6)	3 (4.2)	19 (23.2)	78 (17.3)	
Entry at time of migration	46 (7.7)	8 (11.3)	3 (3.7)	35 (7.8)	.21
Marital status					
Married before entry	242 (40.1)	11 (15.5)	24 (29.3)	207 (46.0)	<.001
Married at entry	33 (5.5)	13 (18.3)	5 (6.1)	15 (3.3)	
Never married after entry	328 (54.4)	47 (66.2)	53 (64.6)	228 (50.7)	
Interview location					
Ciudad Juarez	302 (50.1)	32 (45.1)	49 (59.8)	221 (49.1)	.14
Tijuana	301 (49.9)	39 (54.9)	33 (40.2)	229 (50.9)	
Inconsistent condom use with commercial partners during past 30 d	200 (33.3)	32 (45.1)	37 (45.1)	131 (29.3)	.002
Injection drug use during lifetime	147 (24.4)	37 (52.1)	28 (34.2)	82 (18.2)	<.001

<sup>a</sup> Expressed as No. (%) unless otherwise indicated.

<sup>b</sup> Calculated using analysis of variance for continuous variables and 2-sided  $\chi^2$  test for categorical variables.

**Table 2. Adjusted Associations of Age at Entry Into the Sex Trade With Violence During the First 30 Days After Entry Among Female Sex Workers in Tijuana and Ciudad Juarez, Mexico<sup>a</sup>**

	Violence to Force Entry to Commercial Sex			High-Client Volume			Never Used Condoms		
	No. (%)	AOR (95% CI) <sup>b</sup>	P Value <sup>c</sup>	No. (%)	AOR (95% CI) <sup>b</sup>	P Value <sup>c</sup>	No. (%)	AOR (95% CI) <sup>b</sup>	P Value <sup>c</sup>
Age at entry, y									
<16	14 (19.7)	2.5 (1.2-5.2)	.01	15 (21.1)	2.4 (1.2-5.0)	.02	25 (35.2)	6.6 (3.3-13.2)	<.001
16-17	12 (14.6)	2.0 (1.0-4.2)	.06	16 (19.5)	2.4 (1.3-4.6)	.007	10 (12.2)	1.8 (0.8-4.0)	.15
≥18	39 (8.7)	1 [Reference]		43 (9.6)	1 [Reference]		36 (8.0)	1 [Reference]	
Total (N = 603)	65 (10.8)			74 (12.3)			71 (11.8)		

Abbreviation: AOR, adjusted odds ratio.

<sup>a</sup> Associations assessed via logistic regression.

<sup>b</sup> Models adjusted for current age, education, marital status at entry, city of

interview, and migration at entry. Duration of sex work was not included as a covariate due to multicollinearity with age at entry and current age.

<sup>c</sup> Fixed-effects type 3 test was used.

high-client volume (>10 clients/day), and no condom use during the initial 30 days after entry.

Multivariable logistic regression analyses were adjusted for current age, education, city, and marital and migration status at entry. Modeling for HIV infection (serologically assessed) based on age at sex trade entry (<18 years vs ≥18 years to conserve power given small numbers of HIV cases) was adjusted for current age, recent condom use, and lifetime injection drug use.

Analyses were conducted using SAS version 9.4 (SAS Institute Inc). Two-sided tests with *P* values < .05 were considered statistically significant. Participants provided written informed consent and received \$20 US, HIV counseling, and treatment referrals.

Protocols were approved by the University of California, El Colegio de la Frontera Norte, and Universidad Autonoma de Ciudad Juarez.

**Results** | Of 1041 individuals screened, 614 were eligible and 603 participated (98.2% cooperation rate). The mean (SD) age was 34.3 (10.4) years (Table 1); 25.4% reported entering the sex trade before the age of 18 years and 11.8% reported entry before the age of 16 years.

Compared with those entering sex work as adults, those entering the sex trade as adolescents were more likely to report experiencing violence to force commercial sex (19.7% among those aged <16 years vs 8.7% among adults; adjusted odds ratio [AOR], 2.5 [95% CI, 1.2-5.2]; *P* = .01), high client vol-

ume (21.1% for <16 years vs 9.6% for adults; AOR, 2.4 [95% CI, 1.2-5.0];  $P = .02$ ) (19.5% for 16-17 years vs 9.6% for adults; AOR, 2.4 [95% CI, 1.3-4.6];  $P = .007$ ), and never use of condoms with clients (35.2% for <16 years vs 8.0% for adults; AOR, 6.6 [95% CI, 3.3-13.2];  $P < .001$ ) during their first 30 days in the sex industry (Table 2).

Those reporting entering the sex trade as adolescents were more likely to be infected with HIV compared with those entering as adults (5.9% [9/153] for age <18 years vs 1.6% [7/450] for adults; AOR, 3.1 [95% CI, 1.1-9.3];  $P = .04$ ).

**Discussion** | More than 1 in 4 female sex workers in these northern Mexican cities reported entering the sex trade as minors. Entering the sex trade as an adolescent vs as an adult was associated with a greater risk for HIV infection, which may relate to elevated risks for violence to force participation in commercial sex, higher numbers of clients, and condom nonuse during initiation to the sex industry. Efforts to effectively protect adolescents vulnerable to sex trade entry and assist adolescents in the sex industry are needed.

Study limitations include potential recall bias in retrospective reporting, and such bias differing based on longer duration of sex work; to address this concern, adjusted models included both age at entry and current age. Although consistent with studies of sex workers in other regions,<sup>3</sup> current findings may not generalize to other sex worker populations.

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## COMMENT & RESPONSE

### Medical Scribes and Electronic Health Records

**To the Editor** Dr Gellert and colleagues<sup>1</sup> reviewed the implications of the medical scribe industry for the advancement of electronic health records (EHRs). They pointed out that the scribe system may negatively affect patient safety and decrease market pressure for improvement of EHRs.

However, the challenges of the scribe system may not be limited to those negative effects. The scribe system has limitations from the perspective of the patient-physician interaction, and sociolinguistic research needs to be done to optimize the use of scribes and understand how they affect the patient and physician experience.

Several drawbacks of using scribes may exist when considering the dynamics of the encounter, although dedicated study is required to understand their scope. For example, when the physician is talking to the scribe while facing the patient, the person being addressed may be unclear, leading to confusion on the part of the patient or missed information in the medical record. In many instances, it may not be clear what the scribe should type.

Certain things the physician says may not always be intended for the official record. The use of medical jargon, which is appropriate in notes that will be read by another medical colleague, may make the patient uncomfortable, confused, or lead to time-consuming requests for clarification. Also, as the physician's thought process evolves during the visit, certain thoughts recorded originally may no longer be applicable. Thus, use of such a system introduces the potential for transcription errors. Even though these errors are supposed to be corrected during physician review, time constraints may make this review suboptimal.