

Socio-economic Factors and Adolescent Sexual Activity and Behaviour in Nova Scotia

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ABSTRACT

Purpose: Little is known about associations of adolescents' socio-economic status (SES) and their sexual activity and risk behaviours. This study examined these associations in Nova Scotia adolescents aged 15-19.

Methods: Students at four high schools in northern Nova Scotia completed surveys examining relationships of family SES factors and: 1) sexual activity (having had vaginal or anal intercourse, intercourse before age 15 (early intercourse)); and 2) risk behaviours (use of contraception/condoms, number of partners and unplanned intercourse after substance use).

Results: Of students present when the survey was administered, 2,135 (91%) responded. Almost half (49%) had had vaginal intercourse, and 7% anal intercourse. In univariate analysis for young women, non-intact family structure and lower parental education were associated with having vaginal, anal and early intercourse. Female risk behaviours showed no significant univariate associations with SES. Young men had univariate associations of family structure, lower maternal education and paternal unemployment with early intercourse, and lower paternal education with anal intercourse. Condom use was higher for young men with employed fathers; those living with both parents less often had >1 sexual partner. In multivariate analysis, most SES associations with females' sexual activities held, while most for males did not, and few associations of SES and risk behaviours were seen for females.

Conclusions: Indicators of lower SES are associated with sexual activity in young women. Sexual risk behaviours are not often associated with SES in females, though they are more so in males. These findings have implications for sexual health promotion and health services.

MeSH terms: Adolescent; sexual activity; sexual behaviour; socioeconomic factors

La traduction du résumé se trouve à la fin de l'article.

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By high school completion, most Canadian¹ and Nova Scotian² adolescents have had sexual intercourse, sometimes with negative health outcomes including unwanted pregnancy and sexually transmitted infection (STI). Teenage pregnancy is associated with low birth-weight, preterm delivery and increased infant mortality,³ and teenage mothers may experience decreased educational and vocational attainment.⁴ The 2000 pregnancy rate for Canadian women aged 15 to 19 was 38.2/1000; by contrast, it was 31.5/100 in Nova Scotia that year.⁵ STIs, which are most common among those aged 15 to 24,⁶ are associated with pelvic inflammatory disease, infertility and ectopic pregnancy.⁷

Socio-economic status (SES), as indicated by family structure, parental education and income, is associated with adolescent sexual activity in the United States (US).^{8,9} In young women in Nova Scotia, vaginal intercourse before age 15 is associated with lower paternal education and non-intact family.¹⁰ However, little other Canadian evidence is available concerning SES and adolescent sexual activity and behaviours. This research examines associations of parental employment, education and family structure with sexual activity (ever having vaginal or anal intercourse, or intercourse before age 15 (early intercourse)) and sexual risk behaviours (use of contraception and condoms, numbers of partners, and unplanned intercourse after substance use) in adolescents in northern Nova Scotia. We hypothesized that parents' not being employed and having lower educational status, and adolescents' living with other than both parents (non-intact family) would be associated with increased sexual activity and risk behaviour.

Students aged 15-19 at four high schools in three counties participated in a self-report survey asking about SES factors, and sexual activity and behaviours. These schools serve about 40% of students in these rural counties, which have populations of about 50,000 and county seats of approximately 10,000 citizens. Less than 2% of the population represents visible minorities. Average education and income are slightly less than provincial levels.¹¹

METHODS

Students aged 15-19 in grades 10-12 in the four high schools participated in a

cross-sectional self-report survey which included questions about sexual activity, behaviours, and SES. Surveys were administered in May 2003 by trained teachers with informed consent obtained from students. The Dalhousie University Health Sciences Human Research Ethics Board granted ethical approval.

Ascertaining family income from adolescents is difficult, but parental education and work patterns correlate with income.¹² We therefore asked about parental education and employment. Established associations of sexual activity with family structure^{8,9} led us to include related questions. The investigators formulated survey questions; face and content validity for these were reviewed by a national expert panel. Reliability was assessed by repeat administration at another school. Kappa statistics ranged from 0.76 to 1.0.¹³ Analysis was performed using SPSS 11.5. First, univariate analysis using the χ^2 statistic examined associations of SES and sexual activity and behaviours. Second, logistic regression examined these associations controlling for age, grade and school.

RESULTS

Two thousand one hundred and thirty-five (2,135) students completed surveys (49% males, 51% females; 77% of registered students and 91% of those present). Average age was 16.8 (SD 1.0) for males, and 16.6 (SD 0.98) for females. Thirty-four percent were in Grade 10, 35% in Grade 11, and 31% in Grade 12. Table I shows proportions of students with sexual activity and behaviours by gender. Slightly less than half had had vaginal intercourse, 12% early intercourse and 7% anal intercourse. About one third had unplanned vaginal intercourse after substance use, and 40% had >1 sexual partner for vaginal intercourse. More males than females used a condom at last vaginal intercourse (65% vs. 53%; $p < 0.001$).

SES characteristics are shown in Table II. About two thirds of students lived with both parents. Fifty-five percent of mothers and 52% of fathers had completed post-secondary education. Most fathers (88%) and mothers (64%) were employed full time.

Tables III and IV indicate relationships of sexual activity and behaviours with SES

TABLE I
Proportion of Respondents with Sexual Activities and Behaviours, by Gender

Sexual Activity	Females (N=1090)		Males (N=1045)		p-value
	Number Responding	%	Number Responding	%	
Ever had vaginal intercourse	1089		1041		NS
Yes		50.2		47.2	
No		49.8		52.8	
Ever had anal intercourse	1085		1038		NS
Yes	1085	8.2		6.8	
No		91.9		93.2	
Had vaginal intercourse before age 15*	1086		1035		NS
Yes		13.4		11.0	
No		86.6		89.0	
Sexual Behaviour					
Used a condom at last vaginal intercourse†	543		486		<0.001
Yes		53.0		65.4	
No		47.0		34.6	
Had unplanned vaginal sex in past year after using alcohol and/or drugs†	540		468		NS
Yes		30.6		34.0	
No		69.4		66.0	
>One sexual partner in past year for vaginal sex†	516		447		NS
Yes		39.1		40.7	
No		60.9		59.3	
Used effective contraception last vaginal intercourse (females only)†	543				
Yes		89.0			
No		11.0			

* Includes all students more than 15 years of age

† Includes only sexually active students

TABLE II
Proportion of Respondents with Socio-economic Characteristics, by Gender

Demographic Characteristic	Females (N=1090)		Males (N=1045)		p-value
	Number Responding	%	Number Responding	%	
Family structure	1088		1043		NS
Both natural parents		63.3		66.2	
Other living arrangement		33.7		33.8	
Mother's education*	1048		971		NS
Completed high school or less		44.6		45.2	
Completed post-secondary		55.4		54.8	
Father's education*	1002		944		NS
Completed high school or less		48.2		48.0	
Completed post-secondary		51.8		52.0	
Mother's employment*	1061		1012		NS
Employed full time		62.5		65.8	
Not employed full time		37.5		34.2	
Father's employment*	1032		1001		NS
Employed full time		88.4		87.2	
Not employed full time		11.6		12.8	

* For these questions, students had "don't know" and "not applicable" response options

factors. For females, ever having had vaginal intercourse and early intercourse were associated with non-intact family structure and lower parental education (both parents). Associations of early intercourse with non-intact family, lower maternal education and paternal unemployment were seen in males. For ever having vaginal intercourse in males, trends towards SES associations are seen, but these were not statistically significant ($p = 0.05$ for maternal edu-

cation, 0.06 for maternal employment, and 0.07 for paternal education). Higher paternal education was protective for having anal intercourse (both genders); non-intact family was associated with this outcome in females. No female risk behaviour was associated with SES. In males, paternal employment and intact family were associated with more condom use, while non-intact family was associated with having >1 sexual partner.

TABLE III
Proportions of Female Students with Sexual Behaviours and Activities, by SES Factors

	Sexual Activity			Sexual Behaviour			
	Ever Had Vaginal Sex	Had Vaginal Sex Before Age 15	Ever Had Anal Sex	Used Condom at Last Vaginal Sex	> One Partner Past Year for Vaginal Sex	Had Unplanned Vaginal Sex Past Year While Using Alcohol or Drugs	Effective Contraception Last Vaginal Sex
Family structure							
Both natural parents	43.9***	10.5***	6.4**	54.2	37.5	27.2†	91.0
Other living arrangement	60.9	18.3	11.1	51.7	41.3	34.9	86.7
Mother's education							
Completed high school or less	58.9***	18.0***	9.2	49.3†	40.2	32.8	88.3
Completed post-secondary	43.1	9.0	7.4	56.6	38.4	27.9	91.1
Mother's employment							
Employed full time	51.9	13.7	7.5	54.7	40.9	29.9	90.0
Not employed full time	46.9	12.9	9.6	50.0	36.6	32.8	87.6
Father's education							
Completed high school or less	56.5***	16.2**	10.2*	53.1	40.3	32.8	87.8
Completed post-secondary	43.6	9.5	6.2	54.0	38.4	28.6	92.0
Father's employment							
Employed full time	49.1	13.4	8.3	53.5	40.7	31.7	89.6
Not employed full time	55.0	7.5	7.5	48.5	30.2	28.4	84.8

† p<0.10 (applied to behaviours only) * p<0.05 ** p<0.01 *** p<0.001

TABLE IV
Proportions of Male Students with Sexual Behaviours and Activities, by SES Factors

	Sexual Activity			Sexual Behaviour		
	Ever Had Vaginal Sex	Had Vaginal Sex Before Age 15	Ever Had Anal Sex	Used Condom at Last Vaginal Sex	> One Partner Past Year for Vaginal Sex	Had Unplanned Vaginal Sex Past Year While Using Alcohol or Drugs
Family structure						
Both natural parents	45.4	8.8**	6.7	69.0*	34.4*	33.7
Other living arrangement	50.6	15.5	7.1	58.9	51.5	34.7
Mother's education						
Completed high school or less	51.0	13.1***	6.9	62.4	43.1	31.8
Completed post-secondary	44.8	8.7	6.8	69.4	38.4	34.2
Mother's employment						
Employed full time	49.5	10.8	6.5	63.6	40.1	33.2
Not employed full time	43.4	11.0	6.9	70.5	41.9	34.5
Father's education						
Completed high school or less	50.3	12.7	9.1**	63.1	43.2	36.2
Completed post-secondary	44.5	9.0	4.5	69.0	36.0	29.0
Father's employment						
Employed full time	46.3	10.3*	6.4	67.3*	39.4	33.9
Not employed full time	50.4	17.3	10.2	51.6	38.6	32.8

* p<0.05 ** p<0.01 *** p<0.001

Since slightly over half of students were not sexually active, there was less power to detect associations of SES with behaviours than with activities (where all students were included). We therefore also looked at behaviours univariately using a significance level of <0.10, and found that for young women there were differences for mother's completing post-secondary education and using condoms (57% vs. 49%), and non-intact family and unplanned intercourse (35% vs. 27%). In young men, no further associations of SES and behaviours were seen using this significance level.

Table V shows the results of logistic regression of SES factors on sexual activities and behaviours for females, controlling for age, grade and school. For having vagi-

nal intercourse, a negative association was seen with living with both parents (OR 0.5; 95% CI 0.4-0.7) and mother's having completed post-secondary education (OR 0.7; 95% CI 0.5-0.9). For early intercourse, protective associations were noted for living with both parents (OR 0.5; 95% CI 0.4-0.8) and mother's having post-secondary education (OR 0.6; 95% CI 0.4-1.0). Living with both parents (OR 0.6; 95% CI 0.4-1.0) was protective for anal intercourse, as was higher paternal education (OR 0.5; 95% CI 0.3-0.9). Regarding risk behaviours, living with both parents was protective for having >1 sexual partner (OR 0.7; 95% CI 0.4-1.0) and unplanned intercourse (OR 0.6; 95% CI 0.4-0.9). Using p<0.10 as the significance criterion for behaviours, mother's being employed

was associated with having more than one partner (p=0.09).

Table VI shows the results of logistic regression in males. Of sexual activities, only anal sex was associated with SES, with higher paternal education being protective (OR 0.4; 95% CI 0.2-0.7). For risk behaviours, living with both parents was protective for >1 sexual partner (OR 0.6; 95% CI 0.4-0.9), more paternal education for unplanned intercourse (OR 0.6; 95% CI 0.3-0.9) and paternal employment for condom use (OR 1.9; 95% CI 1.0-3.5). Using p<0.10 as the criterion for behaviours, intact family was associated with condom use (p=0.09), and higher maternal education with condom use (p=0.06) and less unplanned intercourse (p=0.08).

TABLE V

Odds Ratios (95% CI) for Logistic Regression of SES Factors on Sexual Activities and Behaviours, Females

	Sexual Activity			Sexual Behaviour			
	Ever Had Vaginal Sex	Vaginal Sex Before 15	Ever Had Anal Sex	Used Condom at Last Vaginal Sex	> One Partner Past Year for Vaginal Sex	Unplanned Vaginal Sex Past Year While Using Alcohol or Drugs	Effective Contraception Last Vaginal Last (Females)
Age	1.4 (1.1-1.7)*	0.9 (0.7-1.3)	1.4 (0.9-2.1)	0.8 (0.6-1.1)	1.1 (0.8-1.6)	1.1 (0.8-1.6)	0.8 (0.5-1.4)
Grade (Grade 10 is base)							
12	1.5 (0.9-2.7)	0.8 (0.4-2.0)*	1.8 (0.6-5.1)	0.7 (0.4-1.9)	1.0 (0.5-2.3)	0.6 (0.3-1.4)	3.5 (1.0-12.8)†
11	1.2 (0.8-1.8)	0.9 (0.5-1.6)	1.4 (0.6-3.2)	1.0 (0.5-1.7)	0.9 (0.5-1.6)	0.7 (0.4-1.2)	2.3 (0.9-5.7)†
School (School D is base)							
A	1.6 (1.0-2.6)	2.4 (1.1-5.4)*	8.9 (2.0-39.1)**	1.1 (0.5-2.0)	1.1 (0.5-2.2)	1.1 (0.5-2.2)	0.8 (0.2-2.8)
B	1.2 (0.8-1.7)	2.0 (1.0-4.1)	6.73 (1.6-28.2)**	1.0 (0.6-1.9)	1.2 (0.7-2.2)	0.9 (0.5-1.7)	0.6 (0.2-1.8)
C	0.8 (0.5-1.3)	0.7 (0.2-1.9)	2.2 (0.4-12.4)	2.1 (0.9-4.8)†	0.8 (0.4-1.9)	0.9 (0.4-2.1)	3.0 (0.3-27.9)
Living with both parents	0.5 (0.4-0.7)***	0.5 (0.4-0.8)**	0.6 (0.4-1.0)*	1.2 (0.8-1.7)	0.7 (0.4-1.0)*	0.6 (0.4-0.9)*	1.5 (0.8-2.9)
Mother post-secondary	0.7 (0.5-0.9)*	0.6 (0.4-1.0)*	1.3 (0.7-2.2)	1.3 (0.9-1.9)	1.0 (0.7-1.6)	0.8 (0.5-1.3)	1.1 (0.5-2.1)
Father post-secondary	0.7 (0.6-1.0)	0.7 (0.5-1.1)	0.5 (0.3-0.9)*	0.9 (0.6-1.3)	0.9 (0.6-1.4)	1.0 (0.6-1.5)	1.3 (0.7-2.7)
Mother employed full time	1.3 (1.0-1.8)	1.4 (0.9-2.1)	0.8 (0.5-1.4)	1.0 (0.7-1.6)	1.5 (1.0-2.2)†	1.0 (0.6-1.5)	1.2 (0.6-2.4)
Father employed full time	1.0 (0.7-1.6)	2.2 (1.0-4.7)	1.29 (0.6-2.8)	1.3 (0.5-1.7)	1.7 (0.9-3.1)	0.9 (0.5-1.7)	1.9 (0.8-4.4)

† p<0.10 (applied only to behaviours) * p<0.05 ** p<0.01 *** p<0.001

TABLE VI

Odds Ratios (95% CI) for Logistic Regression of SES Factors on Sexual Activities and Behaviours, Males

	Sexual Activity			Sexual Behaviour		
	Ever Had Vaginal Sex	Vaginal Sex Before 15	Ever Had Anal Sex	Used Condom at Last Vaginal Sex	> One Partner Past Year for Vaginal Sex	Unplanned Vaginal Sex Past Year While Using Alcohol or Drugs
Age	2.0 (1.6-2.5)***	1.7 (1.2-2.4)**	1.6 (1.0-2.5)*	0.8 (0.5-1.1)	1.3 (1.0-1.9)	1.5 (1.1-2.1)*
Grade (Grade 10 is base)						
12	1.0 (0.6-1.8)	0.3 (0.1-0.7)**	0.9 (0.3-2.9)	1.1 (0.5-2.5)	0.7 (0.3-1.6)	0.6 (0.3-1.4)
11	0.8 (0.5-1.2)	0.5 (0.3-0.9)*	0.9 (0.4-2.8)	1.3 (0.7-2.5)	0.6 (0.3-1.2)	0.6 (0.3-1.3)
School (School D is base)						
A	1.1 (0.7-1.9)	1.4 (0.6-3.0)	1.4 (0.4-4.7)	1.1 (0.5-2.3)	0.9 (0.4-1.9)	1.4 (0.7-3.1)
B	0.9 (0.6-1.4)	1.1 (0.5-2.1)	2.1 (0.8-5.7)	1.0 (0.5-1.9)	0.7 (0.4-1.3)	1.0 (0.5-1.8)
C	1.1 (0.6-1.9)	0.7 (0.3-2.0)	1.9 (0.5-6.6)	1.0 (0.4-2.5)	0.4 (0.2-1.0)†	0.8 (0.3-1.9)
Living with both parents	0.8 (0.6-1.2)	0.7 (0.4-1.0)	1.1 (0.6-2.1)	1.5 (0.9-2.4)†	0.6 (0.4-0.9)*	1.2 (0.7-1.9)
Mother post-secondary	0.8 (0.6-1.1)	0.6 (0.3-1.0)	1.3 (0.7-2.4)	1.6 (1.0-2.5)†	1.0 (0.6-1.6)	1.6 (1.0-2.5)†
Father post-secondary	1.0 (0.7-1.3)	0.9 (0.5-1.5)	0.4 (0.2-0.7)**	1.1 (0.7-1.8)	0.8 (0.5-1.3)	0.6 (0.3-0.9)*
Mother employed full time	1.3 (1.0-1.8)	0.8 (0.5-1.4)	0.9 (0.5-1.7)	0.8 (0.5-1.4)	0.8 (0.5-1.3)	0.9 (0.6-1.5)
Father employed full time	0.9 (0.6-1.4)	0.7 (0.4-1.3)	0.5 (0.3-1.1)	1.9 (1.0-3.5)*	1.7 (0.8-3.3)	1.2 (0.6-2.4)

† p<0.10 (applied only to behaviours) * p<0.05 ** p<0.01 *** p<0.001

DISCUSSION

The adolescents in this study are as sexually active as those studied nationally¹⁴ and provincially,¹⁵ and their levels of sexual activity, condom use, and having >1 sexual partner resemble closely those reported in the same area a decade ago.¹⁶ In 2000 in northern Nova Scotia, 13% of young women lacked effective contraception at last intercourse, compared with the 11% seen here.¹⁷ Clearly more needs to be done to promote sexual health in Nova Scotia.

SES factors appear to influence sexual activity more in female adolescents than in males. In univariate analysis of young women's sexual activity, family structure and parental education were associated with ever having vaginal intercourse, early intercourse, and anal intercourse. In multivariate analysis of females' sexual activity, intact family and higher maternal educa-

tion were protective for having intercourse, both ever and early, while intact family and higher paternal education were protective for anal intercourse. For young men, there were univariate associations of non-intact family structure, lower maternal education and lower paternal employment with early intercourse, and lower paternal education with anal intercourse. Trends were also seen for association of SES factors with ever having intercourse. Multivariate analysis in males showed only a protective association of higher paternal education and anal intercourse. These findings are compatible with US research, but differ in that associations of SES with males ever having had vaginal intercourse were not seen here. Santelli, using 1992 Youth Risk Factor Survey data, found associations of greater parental education and living in a two-parent family with not having intercourse for both genders.⁹

Lammers, studying more than 26,000 adolescents in one US state, found strong associations of not having had intercourse with higher parental income and intact family for both genders.¹⁸ Data from the U.S. National Longitudinal Study of Adolescent Health showed that for both genders combined, living in a single-parent family and lower income were associated with sexual experience.⁸ In Canada, lower SES adolescents in Manitoba have more sexual experience than higher SES, though gender was not analyzed separately.¹⁹

Such findings have implications for health promotion. Lower SES has been shown to be a risk factor for adolescent pregnancy in ecological studies in Nova Scotia,²⁰ Manitoba,¹⁹ and Toronto,²¹ and lower education level is associated with giving birth before age twenty in Canada.²² Canadian studies of STI and SES are also few, though a Manitoba study found

chlamydia infection was associated with lower income,²³ and a Toronto study showed similar results.²¹ More frequent sexual activity at earlier ages among lower SES female adolescents in particular should be seen as an important health promotion issue in preventing these outcomes. Informative and frank sexual health education, delivered before the onset of sexual activity – which is not always the case in Nova Scotia²⁴ – is crucial.

With respect to risk behaviours, no univariate associations of SES were seen in females at the 0.05 level. Condom use was associated with higher maternal education at the 0.10 level. Multivariate analysis for young women showed that intact family had protective associations with risk behaviours at the 0.05 level (>1 sexual partner and unplanned intercourse). Using a cut-point of $p < 0.10$, maternal employment was associated with having >1 partner. In univariate analysis, young men had associations of paternal employment with condom use, and non-intact family with >1 sexual partner and less condom use. In multivariate analysis, there were three associations with risk behaviours at the 0.05 level (condom use with paternal employment, less multiple partnering with intact family, and less unplanned intercourse with more paternal education). With a $p < 0.10$ cut-point, three further risk behaviours were associated with SES factors. Little is known about associations of SES with adolescent sexual risk behaviours, and what does exist suggests activity is more influenced than risk behaviour.⁹ Our findings indicate that this is particularly true for young women. In young men, though associations of SES and sexual risk behaviours were more common, about half of these were seen with a less stringent p -value. Health care workers should be aware that many factors can impact adolescents' risk-taking behaviour, modifying the influence of SES. The media, which shape adolescent sexual health attitudes,²⁵ and sexual health education²⁶ are important factors, as are open and receptive parental communication²⁷ and peer influences.²⁸ With respect to STI, core group influences are considered very important.²⁹

We have demonstrated that lower SES adolescents receive more physician advice about safer sex,³⁰ though it is difficult to predict sexual activity and behaviours at

the individual level based on SES indicators.³¹ Our current findings indicate that for young women in particular, associations of SES and sexual risk behaviours, and for young men, SES and sexual activity and to a lesser extent risk behaviour, are not frequent. Perception of increased behavioural risk with lower SES potentially could lead to decreased risk screening in middle- and upper-class youth.³² It is important that providers of adolescent sexual health services understand these issues.

This study has limitations. Its rural nature limits comparisons to other areas, and the cross-sectional nature of the data does not allow for causal inference. The data are self-reported, and rely on the willingness of participants to provide truthful, accurate information. The large sample size and high participation rate provide assurance that the results represent the study areas, and probably reflect these issues in similar rural Nova Scotia populations. SES differences in association with sexual activity constitute an important finding, as does the apparent gender difference in this association. Social class predicts poorer health status,³³ and the question of why sexual activity is associated with SES in young women in particular is an important one, demanding further investigation.

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RÉSUMÉ

Objet : On en sait peu sur les liens entre le statut socio-économique (SSE) des adolescents, leur activité sexuelle et leur propension à prendre des risques. Nous avons étudié ces liens chez des adolescents de la Nouvelle-Écosse âgés de 15 à 19 ans.

Méthode : Les élèves de quatre écoles secondaires du Nord de la Nouvelle-Écosse ont rempli des questionnaires sur les facteurs liés à leur SSE familial et : 1) à leur activité sexuelle (relations vaginales ou anales, relations précoces [avant l'âge de 15 ans]) et 2) à leur propension à prendre des risques (utilisation des contraceptifs ou des condoms, nombre de partenaires, relations non planifiées après avoir consommé de l'alcool ou des drogues).

Résultats : Parmi les élèves présents pendant l'administration du sondage, 2 135 (91 %) ont rempli un questionnaire. Près de la moitié (49 %) avaient eu des relations vaginales, et 7 %, des relations anales. Selon l'analyse univariée des réponses des filles, une structure familiale dissociée et un faible niveau d'instruction parental étaient associés aux relations vaginales et anales et aux relations précoces. La propension des filles à prendre des risques n'était pas associée de façon significative au SSE selon l'analyse univariée. Chez les garçons, la structure familiale, le faible niveau d'instruction maternel et le chômage paternel étaient associés aux relations précoces, et le faible niveau d'instruction paternel, aux relations anales. L'utilisation du condom était plus courante chez les garçons dont le père avait un emploi, et ceux qui vivaient avec leurs deux parents étaient moins nombreux à avoir eu plusieurs partenaires sexuels. L'analyse multivariable a confirmé la plupart des liens entre le SSE et l'activité sexuelle chez les filles, mais infirmé la plupart de ces liens chez les garçons; chez les filles, l'analyse multivariable n'a permis d'établir que très peu de liens significatifs entre le SSE et la propension à prendre des risques.

Conclusions : Les indicateurs d'un faible SSE sont associés à l'activité sexuelle chez les filles. La propension à prendre des risques sexuels n'est pas souvent liée au SSE chez les filles, mais elle l'est davantage chez les garçons. Ces constatations ont des conséquences pour la promotion de la santé sexuelle et les services de santé.

Letter to the Editor

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to a country's priority public health needs. The CIIP also contributed to improving women's participation in the delivery and monitoring of primary health care services and their representation and influence within community-based health committees.

The CIIP initiative laid the groundwork for CIII. It served to demonstrate the value added of and galvanized Canadian support for continued Canadian technical support to the global immunization effort. CPHA can be proud of the contribution it has made over the past 20 years to global efforts to protect the health of people around the world.

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CORRESPONDANCE

Objet : Pour invalider la polio – Le Canada et l'éradication de la polio (en encart). *Revue canadienne de santé publique* 2005;96(2):I1-I24.

L'encart susmentionné donne un aperçu détaillé des efforts déployés au cours des

100 dernières années pour mettre au point des vaccins efficaces et élargir la portée des services de vaccination, et plus particulièrement pour éradiquer la poliomyélite. Nous pouvons être fiers de la précieuse contribution qu'a apportée le Canada à cet important effort envers la santé publique mondiale.

Tel qu'il est mentionné dans l'encart, l'Association canadienne de santé publique (ACSP), en collaboration avec un grand nombre d'agences, de sociétés et d'organismes canadiens et internationaux, a été un partenaire actif dans les efforts internationaux de lutte contre les maladies évitables par la vaccination et leurs conséquences. La participation de l'ACSP pour renforcer les programmes nationaux d'immunisation dans les pays en développement et ceux en transition ainsi que son leadership à cet égard précèdent l'Initiative canadienne d'immunisation internationale (ICII), un fait non mentionné dans l'encart.

En 1986, l'Agence canadienne de développement international (ACDI) a choisi l'ACSP pour mettre en œuvre la première initiative d'immunisation internationale globale appuyée par le Canada. Au cours des dix années qui ont suivi, le Programme canadien d'immunisation internationale (PCII) a accordé un appui à 155 projets dans 43 pays en développe-

ment afin de renforcer les systèmes de soins de santé primaires à l'appui d'une couverture vaccinale durable dans certains des pays les plus pauvres. De concert avec des partenaires locaux, plus d'une douzaine d'organismes non gouvernementaux canadiens et d'universités ont mis en œuvre les projets. Durant les deux phases du PCII, le gouvernement canadien a investi 73 millions de dollars dans l'immunisation dans le monde, et les organismes non gouvernementaux canadiens partenaires ont investi une somme additionnelle de 23 millions de dollars. Ce montant ne tient toutefois pas compte des efforts, du temps et des ressources consacrés sans contrepartie par d'innombrables personnes (des membres de l'ACSP et d'autres Canadiens qui ont agi à titre de superviseurs, des professionnels de la santé locaux, des bénévoles d'organismes non gouvernementaux et des membres de la communauté, ainsi que le personnel local du ministère de la Santé) et qui représentent des millions de dollars.

L'évaluation finale du projet a permis de conclure que cette initiative canadienne unique en son genre a contribué à la hausse des taux de couverture vaccinale (y compris le VAO3) dans la majorité des pays où on a appuyé des activités à cet égard. Le projet a aussi permis de développer un leadership en santé publique, de renforcer la capacité

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