ABSTRACT

Background: Northeastern British Columbia, Canada, is undergoing rapid in-migration of young, primarily male, workers in response to the “boom” in the oil/gas industries. Chlamydia rates in the region exceed the provincial average by 32% (294.6 cases per 100 000 persons compared with 213.3). Evidence indicates that sociocultural and structural determinants of young people’s sexual health are key to consider in the design of interventions.

Objectives: To investigate how sociocultural and structural features related to the oil/gas boom are perceived to affect the sexual behaviour of youth in a Northeastern “boomtown”.

Methods: The study included ethnographic fieldwork (8 weeks) and in-depth interviews with 25 youth (ages 15–25 years) and 14 health/social service providers.

Results: Participants identified four main ways in which the sociocultural and structural conditions created by the boom affect sexual behaviours, fuelling the spread of sexually transmitted infections (STIs): mobility of oil/gas workers; binge partying; high levels of disposable income and gendered power dynamics.

Conclusions: The sociocultural and structural conditions that are fostered by a resource-extraction boom appear to exacerbate sexual health inequalities among youths who live and work in these rapidly urbanising, remote locales. To meet the needs of this population, we recommend STI prevention and testing service delivery models that incorporate STI testing outreach to oil/gas workers and condom distribution. Global, national and local STI control efforts should consider the realities and needs of similar subpopulations of young people.

In British Columbia (BC), Canada, Chlamydia rates among youths have doubled since 1997 and exceed the national average.1 In 2005, BC's Northeast experienced a 10% increase in Chlamydia rates, which exceeded the provincial average by 38% (294.6 cases per 100 000 compared with the BC average of 213.3).1 Northeastern BC is experiencing rapid in-migration of young people (mostly men), attracted by the “booming” oil/gas industries that feature high-paying jobs located “on the oil patch”. The resultant demographic and social disruptions that occur in towns and cities located near these remote oil/gas worksites and camps pose serious public health implications related to sexually transmitted infections (STIs).2

Previous research suggests that sociocultural and structural features of communities are important determinants of sexual health outcomes.4,5 Places with a large proportion of young, single people are believed to promote the spread of STIs due to high rates of sexual partner change, concurrent partnerships and efficient sexual networks.6 Resource-extraction (for example, oil, gas and mining) communities in many African countries experience disproportionately high rates of STIs, including HIV.7–12 Postulated mechanisms include: (1) long separations from regular sex partners making it acceptable for young male workers to engage in concurrent relationships with multiple partners; and (2) novel social environments remove people from the social controls over sexual behaviour inherent in their “home” communities.13 Young people in resort communities also experience high rates of STIs,14–15 where “binge” partying has been associated with frequent and unprotected sex while temporarily unconstrained by one’s usual social context.16–17

In North America, research has traditionally focused on the environmental and occupational health impacts of resource-extraction,18 whereas little research has investigated the health and social well-being of communities that host these industries. Thus, we undertook a study to examine how sociocultural and structural features related to the oil/gas boom are perceived to affect the sexual behaviour of young people in a Canadian boomtown.

METHODS

Study setting

Fort St John (FSJ) is the centre of BC’s oil/gas industry. Since 2001, the city has been experiencing a natural gas boom, boosting median family income 15% above the provincial average ($63 407 CAN vs $54 840).19 The local economy is highly dependent on oil/gas and mining as indicated by an income dependency of 32% on these sectors.19

FSJ’s official population (according to Statistics Canada’s Census) has increased by 8.4% (from 16 051 to 17 402) during the past 5 years.20 FSJ’s population aged 15–29 years is growing at three times the provincial average21 and is disproportionately male (for example, 107.2 males per 100 females compared with 98.3 in BC).21 In addition to those new residents of FSJ, the influx of oil/gas workers who temporarily reside in adjacent camps cause FSJ’s population to double during the drilling seasons (autumn and winter).

Oil/gas workers are typically lodged for 20–28 day shifts in camps located several hours’ driving distance from town. During their time off, many workers travel to urban centres (mainly FSJ) and engage in alcohol and/or drug binges in FSJ’s bars and nightclubs. In FSJ there are three dance clubs, three strip clubs, as well as bars and pubs in most hotels. Informal parties in hotel and motel rooms as well as in private homes also are important
venues for binge drinking and drug use. Since the boom, rates of STIs, such as Chlamydia, have been two to three times higher than the provincial average. Among youths aged 15–24 years there were 2014 cases per 100,000 persons in FSJ compared with the BC average of 955 in 2005 (data provided by the Division of STI/HIV Prevention and Control, British Columbia Centre for Disease Control, 2006).

**Mobility of oil/gas workers**

Participants suggested that the transience of oil/gas workers, who intersperse 4–7 day holidays in FSJ with 20–28 day shifts in remote work camps, contributed to the spread of STIs, primarily because of high rates of partner change:

“...sleep with a lot more people, due to the fact that there’s so many people coming and going. There’s a stereotypical saying in the Northern parts that when the shift of workers go out to work, the girls go and get the shift that are coming back in, and end up sleeping with them. And then, when they go back out, they take the next shift.” (Cole, 25 years old).

Many women were said to engage in concurrent sexual relationships with oil/gas workers:

“...a guy has a girlfriend and he goes out to camp for two weeks, so she has another boyfriend who’s on opposite schedules, like he’s in town while the other one’s in camp and vice versa [...] [They’ve] got, you know, two, three, four guys on the go.” (James, 23 years old).

This was perceived as increasing the likelihood of acquiring an STI, since most of the sexual contact with multiple partners was said to be unprotected. Service providers also viewed concurrent relationships as a risk for the spread of STIs:

“The inherent problems of that type of work [are that] lots of patients come in who have discordant relationships, out of their usual relationships, with STIs.” (Physician).

Many participants described how the influx of workers, who do not identify with FSJ as home, affects attitudes and sexual behaviour. One young worker explained that risk-taking behaviours were higher among workers from another province:

“The guys from out East, they tend to have not too much respect for the towns [...] I’ve heard stories of a four-man Newfie crew all having a go with the same girl, in the same night.” (Kyle, 22 years old).

Ann, a 21-year-old local, explained her frustrations with oil/gas workers’ attitudes:

“A lot of workers come here, they’ll sleep with people and they can either catch it [an STI] or spread it, but they’re not going to call that person and tell them, they’re not going to inform anyone of the problem. Because they’re leaving right away, they don’t have any attachment to these people.”

In these ways, youth and service providers perceived the influx of workers as eroding a local sense of community, negatively affecting the ways in which people relate socially and sexually.

**Binge partying**

When oil/gas workers come “off shift”, their brief holidays in FSJ often involve “benders” or “binges” on alcohol and/or drugs. A local bar culture that promotes “hard partying” was described as a way of “blowing off steam” after a long time “in the patch”:

“As soon as you come back, you’re gonna blow half your money on one big party. This town is one big snowball of drugs, anger, sexual stuff [laughs]. It’s insane. Rig work just makes it much worse because you’re out in camp for that long and then you got all that built up, and then you come back to town – and the town is the release.” (Derrick, 21 years old).

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Sex Transm Infect 2008; 84:220–223. doi:10.1136/sti.2007.027219

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**Results**

**Sample characteristics**

Thirteen youth participants were female. Average age of the youth participants was 20 years. Fourteen identified their ethnicity as white, ten as aboriginal and one as black. Fifteen youth participants were students and eight had worked in the oil/gas industry. Twelve lived with their families, six with friends and four with others (for example, university residence, work camps). Ten healthcare workers were interviewed: four public health staff and six medical clinic staff. Four social service providers employed at youth organisations also participated. Ten providers were female and 11 identified as white.

**Youth sexual behaviour in FSJ**

Study participants identified the mobility of the oil/gas workforce, binge partying, high levels of disposable income and gendered power dynamics as key sociocultural and structural conditions that affect youth sexual behaviour and promote the spread of STIs.
During a typical bender, young workers,

“come back and they go drinking and they look for a girl.”
(Brody, 16 years old).

Youths suggested that the likelihood of acquiring an STI increased dramatically during such “hook-ups”:

“They’ll buy $2000 worth of shots in a night. And then you’ll be obviously destroyed [a euphemism for very drunk]. Sex at that point, if it happens, where is the protection? Who cares? And my friends, I know they’ve had STDs on numerous occasions, […] but they’re horny and they end up having sex with that girl because they’re drunk at a bar.” (Cole, 25 years old).

Healthcare providers agreed:

“Young guys come into town over the weekend with a bunch of cash and blow it on drugs and women […] it’s not that they’ve had sexual partners that they were in a relationship with, it was just a weekend thing.” (Physician).

High levels of disposable income
Participants explained that binge partying was bolstered by the high incomes available to oil/gas workers:

“[My brother] blows $500 in the bar on average. Me and him used to party. One time was a $1000 night and that was just on girls I didn’t even know!” (Jared, 25 years old).

The importance of material resources (for example, income, trucks, housing) in determining sexual relationships between men and local women was frequently discussed. In FSJ, young women typically “date” men with higher incomes—implicitly providing access to resources. Some participants attributed these arrangements to the fact that local women (who infrequently work in oil/gas) earn much less than men (for example, men in FSJ earn 2.5 times more than women).24 In our interviews, these women were frequently stereotyped as “gold diggers”:

“Gold-digger is the only expression that fits. There’s so much money, […] They’ll have more than one guy on the go who can lavish you with gifts for the one week he’s in town out of the month.” (James, 23 years old).

Some of the young women we interviewed shared these perceptions and spoke about the implications for sexual behaviour:

“It’s a money town… a lot of girls sleep around here ‘cause it’s like, ‘oh, he has money and a truck and let’s go do this.’” (Kaylee, 21 years old).

Gendered power dynamics
Many more males than females are in-migrating to FSJ to work in the oil/gas industry. As a result, gendered social relationships appear to be changing. Nowadays, many young women live alone or stay with family while their partners spend long periods working “in the patch”. During this “alone time”, participants described that these women have their choice of a plethora of men:

“Here it’s like six to one, men to women, which means the women get […] their choice of men here. So that’s why they have the ability to have children and still go sleep around with other men, because they know when those men come back, they’ll take them back. ‘Cause they want to live here, make the money, have the toys, and obviously they’re looking for a companion.” (Cole, 25 years old).

Many participants viewed these behaviours as problematic, perceiving them as contributing to the spread of STIs. For example, one young man who had recently moved to town explained his reaction to his first local girlfriend’s refusal to use condoms:

“‘There’s no need to have protected sex. Condoms take the meaning out of sex’. [Those were] exactly her words. […] So, I found out she was cheating on me [with] this big guy who works in the oil patch and can have any girl. […] When I got here, it was weird, because most girls I met don’t use condoms to have sex.” (Andrew, 20 years old).

Young women also often described safe sex as challenging to negotiate—especially with an older, wealthier sex partner. Some young women explained that they believed that because their sex partners were older and more experienced, they would take the necessary precautions (for example, getting tested for STIs). Many young women described negative, unintended consequences of sexual encounters with “riggers”:

“She got drunk and we went to the bar, and then some worker guy I don’t even know, […] they went home together. She’s still underage […]. She came to me the next day and she asked me to go with her and she got tested.” (Rose, 16 years old).

DISCUSSION
Our findings are indicative of a sexual health crisis that has developed in concert with the boom. Recent syphilis outbreaks in the region are further testimony to this. Public health officials explained that the infection was quickly spreading beyond traditional higher risk groups, from urban areas to boom-towns.20 As young people (primarily men) continue to migrate to and within the region, the situation is likely to worsen until action is taken.7 Globally, similar subpopulations (for example, young, male, migrant workers) and places (that is, booming resource-extraction communities) continue to proliferate and may experience sociocultural and structural conditions similar to those described in our findings. We recommend interventions for the control of STIs that are tailored and targeted to the needs of young people living in these communities.

Key messages

- This paper elucidates the previously unidentified sexual health implications of oil/gas industry in a remote Canadian community.
- Four key mechanisms are described that interact to put youth at risk of sexually transmitted infections (STI): mobility of oil/gas workers; binge partying; high levels of disposable income; gendered power dynamics.
- Recommendations include STI testing outreach for oil/gas workers and condom distribution.
- Implications of these findings extend beyond Canadian oil/gas workers to young people who live and work in booming resource-based communities in Western nations.
It is essential to provide oil/gas workers with STI testing at oil/gas camps. This has been applied in other resource-extraction contexts demonstrating reductions in STI rates. Self-testing and/or self-specimen collection may be particularly useful in this geographically and socially isolated population. Condoms should be made available and widely advertised at oil/gas camps and throughout the city (especially at bars and hotels).

In this paper, we investigated how the sexual behaviour of young people is perceived to be affected by rapid and massive social and economic changes in their community. Our findings imply that the conditions created by a resource-extraction boom negatively affect youth sexual health in these remote locales. Global, national and local STI control efforts should consider the realities and needs of similar subpopulations.

Acknowledgements: This work would not have been possible without the youth and service providers who enthusiastically participated. Thanks also to the Northern Health Authority, the North East Native Advancing Society and the community organisations and clinics that participated. Goldenberg holds a Trainee Award from the Michael Smith Foundation for Health Research and Shoveller, Koehoorn and Ostry each hold a Senior Scholar Award from the same organisation. Shoveller also holds the Canadian Institute of Health Research’s Applied Public Health Chair in Improving Youth Sexual Health. Ostry holds a Canada Research Chair in the Social Determinants of Community Health.

Funding: This study was supported by the BC Medical Services Foundation.

Competing interests: None.

This study was supported by the BC Medical Services Foundation.

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Youth sexual behaviour in a boomtown: implications for the control of sexually transmitted infections


*Sex Transm Infect* 2008 84: 220-223 originally published online December 20, 2007
doi: 10.1136/sti.2007.027219

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