Sexual Behaviour and Sexually Transmitted Infection (STI) Prevention among Youth in Northeastern BC

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Background

Northeastern BC is in the midst of an oil/gas 'boom'. Remote communities in this part of the province are currently experiencing rapid in-migration of young people (mostly men) who are attracted by the high-paying jobs in the oil/gas sectors (e.g., the population aged 15-29 is growing at 3 times the rate of the rest of BC, disproportionately represented by men). These jobs require workers to spend considerable periods of time in remote worksites and camps. When oil/gas workers come 'off shift', their brief holidays in adjacent towns (e.g., Fort St. John) often involve 'binges' on alcohol and/or drugs.

Key Demographic Features of FSJ

- Rapid influx of young people (mostly men)
- High levels of disposable income
- 'Binges' on drugs and alcohol
- High and rising sexually transmitted infection (STI) rates

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 problems, such as those related to STIs [1]. Recently, health and social impact assessments of other Canadian energy mega-projects (e.g., the MacKenzie Gas Pipeline) have identified concerns related to the spread of STIs anticipated to accompany the influx of young workers and income[2].

Accompanying the 'boom' has been a rise in rates of sexually transmitted infections (STIs) among young people. While rates across BC are high (e.g., Chlamydia rates among youth have doubled since 1997 and exceed the national average)[3], they are disproportionately high among young people located in resource-extraction communities in BC's Northeast.

In 2005, Chlamydia rates among youth ages 15-24 exceeded the provincial average by 22% (1168 per 100,000 in the Northeast compared with the BC average of 955 per 100,000) and represented a 21% increase since 2000.

Previous research suggests the importance of socio-cultural and structural determinants of STI status – and as key targets for intervention[4-6]. Places with a large proportion of young, single persons are believed to promote the spread of STIs,[7] due to high rates of sexual partner change, concurrent partnerships, and socially interconnected sexual networks[8].

Resource-extraction communities in many African countries experience disproportionately high rates of STIs and HIV[9-12]. Postulated behavioural mechanisms include: (a) long separations from regular sex partners make it acceptable for young male workers to engage in concurrent relationships with multiple partners; and (b) 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].

[i] Division of STI/HIV Prevention and Control, British Columbia Centre for Disease Control (2006).

We hypothesized that such patterns of sexual behaviour also manifest in North American resource-extraction communities experiencing the rapid influx of young people (especially men).

A strong public health impetus exists to address the STI epidemic by providing STI testing and prevention resources to youth in Northeastern BC. STIs are largely preventable and treatable, and testing and treatment represent effective means of reducing the disease burden. [18,19] Undetected and/or untreated, STIs pose serious health consequences, including pelvic inflammatory disease, infertility, and ectopic pregnancy. Moreover, STIs are synergistic, in that acquiring one increases the risk of others, including HIV. Consequently, detection and treatment contribute to prevention.

A large body of literature has documented a spectrum of socio-cultural and structural barriers to youth accessing STI testing (e.g., stigma, inconvenient hours of operation). Since many of these barriers are related to features of the socio-cultural and structural environment, they are likely to vary between communities and are hypothesized to be particularly challenging in resource-extraction communities in BC's Northeast.

Socio-cultural and structural determinants of STI status are central to improving interventions to promote and protect the population's sexual health. Thus, an examination of the ways in which socio-cultural and structural circumstances affect youth sexual behaviour and access to STI testing is warranted.

Objectives of this study were to:

1. Examine how socio-cultural and structural features related to the oil/gas 'boom' are perceived to affect the **sexual behaviour** of young people
2. Gather the perspectives of youth and their service providers on the socio-cultural and structural barriers to **STI testing** among oil/gas workers
3. Develop recommendations to improve the accessibility of STI testing and prevention resources in North American resource-extraction communities

Methods

Eight weeks of ethnographic fieldwork was completed in Fort St. John, BC. Thirty in-depth interviews with youth (ages 15-25) and 18 interviews with health and social service providers also were conducted. Fieldwork included observations and informal conversations with youth, health, education, and social service providers, as well as other community members. Participants were asked to describe their perspectives on local sexual behaviour and access to STI testing, and completed a brief socio-demographic survey.

Results

Youth: Forty eight percent (n=12) of youth participants were male, and their average age was 20 years. A mix of newcomers and locals participated; but, on average, youth had spent 8 years in the community. Fifty six percent identified as White (n=14) and 40% as Aboriginal (n=10). Most (72%, n=18) had been tested for STIs (an average of 4 times each).

Sixty percent (n=15) of youth were students, many of whom worked part-time. A third (32%, n=8) of youth participants had worked in the oil/gas industry; 16% (n=4) identified as currently employed in the service sector, 12% (n=3) as stay-home mothers, and 8% (n=2) as teachers. Thirty six percent (n=9) of participants were recruited from the local college, 32% from the youth centre (n=8), 16% (n=4) from community organizations, and 16% (n=4) from other locations (e.g., clinics, coffee shops).

Service Providers: Four public health staff, 6 medical clinic staff, and 4 social service providers participated. Most providers were female (71%, n=10) and White (78%, n=11); their mean age was 44 years and they had spent an average of 14 years in Fort St. John.

Youth sexual behaviour and the oil/gas 'boom':

Participants identified 4 key ways in which the conditions created by the 'boom' affect youth sexual behaviour and promote the spread of STIs:

- **Mobility of the local oil/gas workforce**
- **'Binge' partying**
- **High levels of disposable income**
- **Gendered power dynamics**

Mobility of Oil/Gas Workers

Participants suggested that the transience of oil/gas workers, who intersperse brief (e.g., 2-7 day) holidays in Fort St. John with long (e.g., 20-28 day) shifts in remote work sites, contributed to the spread of STIs, primarily due to high rates of partner change:

"[People here] 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" (Service Provider)

Participants described how the influx of workers, who do not identify with Fort St. John as 'home', affects 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)

Binge Partying

When oil/gas workers come 'off shift', their brief holidays in Fort St. John 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)

We were told that during a typical 'bender', young workers:

"Come back and they go drinking and they look for a girl"

(Brody, 16 years old)

Youth explained 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)

Health care 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"

(Service Provider)

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 (e.g., income, trucks, housing) in determining sexual relationships between men and local women was frequently discussed. In Fort St. John, young women typically 'date' men with higher incomes – implicitly providing access to resources, usually an unspoken arrangement. Some youth and service providers attributed these arrangements to the fact that local women (who infrequently work in oil/gas) earn much less than men (e.g., men in Fort St. John earn 2.5 times more than women). 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 do this"' (Kaylee, 21 years old)

Gendered Power Dynamics

Many more males than females are in-migrating to Fort St. John to work in the oil/gas industry. As a result, gendered social relationships appear to be changing in concert with the 'boom'. 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:

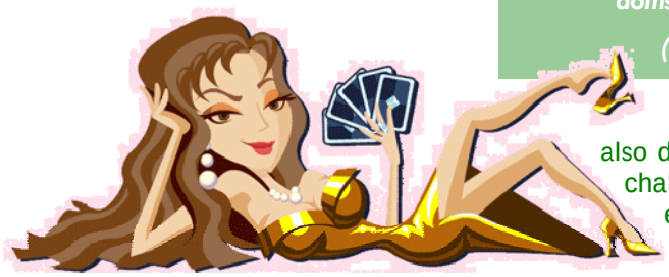
"Here it's like six to one, men to women, which means the women get […] their choice of men here. So that's why they have the ability to have children and still go sleep around with other men, because they know when those men come back, they'll take them back. 'Cause they want to live here, make the 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 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 (e.g., got 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)

STI testing among oil and gas workers

Serious mismatches exist between youth's needs for STI testing and accessible services. Participants described a spectrum of barriers to STI testing among the general population of youth in FSJ, which are described in detail in a previous report[ii]. However, participants identified 3 main factors that particularly impact on young oil/gas workers' access to STI testing:

- **Limited opportunities to access testing**
- **Geographic isolation**
- **'Rigger' culture**

[ii] This report can be accessed at: http://www.youthsexualhealth.ubc.ca/projectfiles/2d2e183ec05a8e29931cf7efaefaa675/BCMSF%20Interim%20Report%20-%20March%2007.pdf

Limited Opportunities to Access Testing

STI testing is provided through 3 venues in FSJ: the public health unit, 3 walk-in clinics, and the hospital ER.

Limited hours of the public health unit and walk-in clinics were described as a substantial barrier to access. Clinics are open during the workday only and close during lunchtime. STI testing is available at the public health unit during four appointments per week, although none of the oil/gas workers we interviewed were aware of this. There is a lack of drop-in testing, which youth explained made it difficult for them to access help when they urgently needed it (e.g., when symptoms appear; after a high-risk encounter).

Oil/gas workers explained the difficulties in taking time off work to get tested for STIs:

> *"You never have any free or personal time [in which to access testing]. It's work, sleep, eat, and work"*
>
> *(Neil, 18 years old)*

Service providers also explained how the current service provision structure is incompatible with workers' lives:

> *"They demand services in a very timely manner. Part of making $80,000 a year is to work your buns off. So when they phone our clinic to say, 'I'm going to be in town tomorrow, I need to get tested' and the receptionist says, 'We don't have an opening until next Thursday,' they're like 'Oh screw you"' (Service provider)*

Participants explained that oil/gas workers, who typically work seasonally in the region, would be unlikely to have a family physician in FSJ:

> *"It is the transient thing. It wouldn't be unusual for me to find out that they're from [name of another community]. Because they're up here for a job. So of course they don't have a family physician" (Service provider)*

Participants said they depend on walk-in medical clinics and hospitals (currently the main modes of accessing STI testing for this population), but were frequently frustrated with the clinical encounters they had experienced within these settings, where they did not feel like the service providers could take the time necessary to establish a trusting relationship with patients. As one young man explained:

> *"It felt almost like I was wasting the doctor's time. Like he didn't want me to be there to do that, and it takes all of, you know, a minute"*
> *(James, 23 years old)*

Youth and service providers agreed that current models of service provision do not facilitate the establishment of rapport and shut down opportunities for young people to ask questions and develop skills related to prevention. We also heard numerous reports of oil/gas workers seeking testing at the hospital ER – the only option on the weekend or after 4:00 on weekdays.

Geographic Isolation

Geographic isolation also poses barriers to STI testing for oil/gas workers, most of whom are housed for long periods of time in remote camps far from town. Youth explained that taking the day off work to drive to town for an STI test would mean losing a day's pay and could involve risking one's job, since employers bear the expense of room and board ($120-$170 per employee per day). Many young workers also lack access to their own transportation.

No STI testing is available onsite, although youth and service providers strongly felt that there is a need for it. Young men explained that although first aid staff are present, their role is limited to emergency medical assistance for occupational injuries. Public health outreach to these camps, especially for STI testing, has never occurred.

Some providers also suggested that the public health system in the region did not facilitate attempts to creatively reach out to this population in the past:

> *"There is a desire to do outreach, but the message is, 'we're too busy'. To get out and start thinking creatively - from other peoples' perspectives and putting client needs first - that takes more work"*
>
> *(Service provider)*

Health care providers also expressed frustrations regarding the challenges of effective STI control given the geographic isolation of oil/gas workers. Many situations were recounted in which providers were unable to communicate positive STI test results to clients living in remote camps and/or complete contact tracing. Providers were concerned that these workers (whom they perceived to be engaging in unprotected sex with multiple, concurrent partners) could unknowingly pass on an STI to their partner(s).

Several service providers argued in favour of establishing flexible approaches to STI control (e.g., the use of single-dose treatment regimens; treatment prior to a confirmed diagnosis; the provision of treatment for partners who have not been tested themselves).

Rigger Culture

Young workers are exposed to a plethora of place-based stereotypes related to 'rigger' culture (e.g., hyper-masculinity, sexism, apathy towards self-care).

These hyper-masculine attitudes and behaviours were described by youth and service providers as locally sanctioned and even 'expected' by the community. One oil/gas worker explained:

> *"We got so many different people from such different places. Guys have been in camp for months and you know how they think and act – I think the community expects that, really"*
>
> *(Jared, 25 years old)*

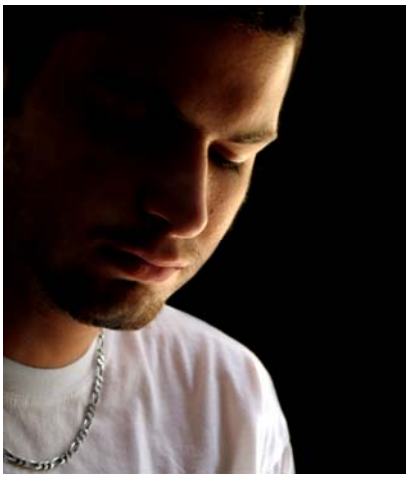
Unsurprisingly, STI testing was perceived as a highly stigmatized behaviour, and participants explained that this meant that oil/gas workers would be highly unlikely to seek out information about STIs or testing services - especially in the absence of symptoms.

'Rigger' culture also was perceived to affect attitudes and practices regarding sexual dynamics between workers and more long-standing members of the local community. As one young woman who had grown up in FSJ said:

> *"A lot of workers come here, they'll sleep with people and they can either catch it [an STI] or spread it, but they don't have any attachment to these people - they're never going to see them again. […] The community has this epidemic of Chlamydia. I don't know how many of those guys are aware of that, but people that come into town and leave don't feel like they need [to get tested], 'cause it's not their community"*
>
> *(Ann, 21 years old)*

Our data revealed a complex interface between 'riggers' and 'locals'. And, while our interviews with oil/gas workers indicate that they perceive a strong need for STI testing, it was clear that they did not know where they could go to access it and did not feel comfortable consulting others for such information.

Additionally, most oil/gas workers reported that they had not received any information about STIs or testing since they began their working lives (many had left school and gone to the rigs at age 15) – a missed opportunity to intervene during a critical transition phase in young people's sexual lives.



Implications

This is an issue that affects numerous communities across Canada in ways that have yet to be addressed through conventional approaches. The development of new interventions that are designed to 'fit' with local context could have significant public health benefits. In light of the rapidly expanding populations of young, transient workers linked to resource-extraction 'boomtowns' across Canada (e.g., Fort. McMurray)[20] the pubic health system is facing a critical moment.

The STI rates presented at the outset may not reflect the full extent of the problem, given that young workers in FSJ are reportedly less likely than other youth in BC to be tested. Our experience recruiting was revealing in terms of the barriers to engaging meaningfully with this population to promote sexual health. Despite their expressed interest in this issue, many oil/gas workers indicated that they were not in a position to complete an interview since they could not afford to take the time off work.

Our analysis illustrates the fallacy of the prevailing colloquialism that 'the only drawback to a boom is a bust'. These criticisms have been absent from the health literature pertaining to North American resource-extraction communities.

As many young people in these places are undergoing significant transitions in their social and sexual lives (e.g., living on their own for the first time; earning unprecedented wages; exposed to a local bar scene that promotes 'hard' drinking), other potential public health impacts of resource-extraction on youth's lives should be investigated (e.g., mental health; housing; addiction).

The current study and its corresponding response is a critical first step in improving access to appropriate public health services for these geographically marginalized populations across Canada.

Current Initiatives

Intersectoral partnerships:

Partnerships between public health, non-profit organizations, and oil/gas industry are needed to bolster local capacities to provide services. We are working in partnership with public health and a BC-based sexual health organization to launch a response to the STI epidemic. We are currently building partnerships with industry to facilitate new and innovative STI outreach activities.

Promoting public awareness:

We are developing a campaign that will promote sexual health, reduce stigma, and increase access to information. Information (e.g., posters, wallet cards, clinic advertisements) and free condoms will be made available in multiple sites in FSJ (e.g., nightclubs, hotels, youth centres) and 'on the patch' (e.g., enclosed in pay cheques; via health and safety orientations; in washroom stalls at oil/gas camps).

STI testing 'on the patch':

We are working to provide testing to oil/gas workers on site via nursing outreach, self-testing, and/or self-specimen collection.

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