Sexually Transmitted Infection (STI) Testing among Young Oil and Gas Workers

The Need for Innovative, Place-based Approaches to STI Control

Shira M. Goldenberg, BA, MSc
Jean A. Shoveller, PhD
Aleck C. Ostry, PhD
Mieke Koehoorn, PhD

ABSTRACT

Background: Northeastern British Columbia is undergoing rapid in-migration of young, primarily male workers in response to the “boom” in the oil/gas industries. Accompanying the boom is a rise in Chlamydia rates among youth, which exceed the provincial average by 22%. STI testing reduces the disease burden, contributing to STI prevention.

Objectives: 1) To document youths’ perceptions regarding the socio-cultural and structural forces that affect young oil/gas workers’ access to STI testing; 2) to gather service providers’ perspectives on sexual health service delivery for workers; and 3) to develop recommendations to improve the accessibility of STI testing.

Methods: We conducted ethnographic fieldwork (8 weeks) in a remote oil/gas community, including in-depth interviews with 25 young people (ages 15-25) and 14 health and social service providers.

Results: Participants identified limited opportunities to access testing, geographic isolation, and ‘rigger’ culture as three key categories inhibiting STI testing among oil/gas workers.

Discussion: These results suggest the need for place-based approaches to STI control. Innovative outreach strategies are suggested to address oil/gas workers’ needs, including a locally tailored STI awareness campaign, condom distribution, expanded clinic hours, and onsite STI testing.

Key words: Sexually transmitted infections; testing; oil and gas workers; youth; sexual health; British Columbia

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

Canada’s economy is highly dependent on resource extraction industries. Communities reliant on these sectors frequently experience social and demographic disruptions associated with these industries (e.g., the influx of workers, money; infrastructural shortfalls), yet studies of the impacts of resource extraction in North America have focused on environmental and occupational health. Northeastern British Columbia (BC) is experiencing rapid in-migration of young people (mostly men) attracted by the oil/gas sectors. These jobs typically require weeks spent in isolated settings, and workers’ brief holidays in adjacent towns often involve binges on alcohol and/or drugs. This poses serious public health problems related to sexually transmitted infections (STIs), which are disproportionately high and rising among young people in Northeastern BC. In 2005, Chlamydia rates among youth ages 15-24 exceeded the provincial average by 22% (1,168 compared with 955 per 100,000) and represented a 21% increase since 2000. While research conducted in other settings has identified STIs/HIV as adverse impacts of the oil/gas and mining industries, this has not been further investigated in North America.

STIs are largely preventable and treatable, and testing is an effective means of reducing the disease burden. STIs are often asymptomatic, yet undetected and/or untreated they pose serious health consequences (e.g., infertility; increased likelihood of acquiring HIV). While evidence suggests that young oil/gas workers represent important targets for STI testing, youth often face significant barriers to access as a result of socio-cultural and structural factors. These include stigma, shame, and social discomfort; privacy concerns; and limited information. Clinic hours of operation and physical accessibility can also inhibit testing. Judgemental behaviour of providers and inadequate training have also been cited. However, these pertain mostly to urban youth recruited from STI clinics; therefore, there is a need to evaluate barriers in other populations — especially vulnerable and underserved groups.

The question guiding this analysis was: what are the socio-cultural and structural forces that affect oil/gas workers’ access to
STI testing in a Canadian context? To the best of our knowledge, no other research has explored STI testing among resource-extraction workers in North America. We undertook a study to: 1) document youth’s perceptions regarding the socio-cultural and structural forces that affect oil/gas workers’ access to STI testing; 2) gather service providers’ perspectives on sexual health service delivery; and 3) develop recommendations to improve access to STI testing.

METHODS

Data collection and analysis

Data were collected using ethnographic fieldwork (8 weeks) and in-depth interviews with 25 young men and women (15-25 years) and 14 health/social service providers in Fort St. John, BC (FSJ). Ethnographic research techniques are ideal for elucidating social and structural conditions from the perspectives of the local population, especially regarding stigmatized topics such as sexual health.45-47 FSJ (pop: 17,402) is the centre of BC’s oil/gas industry.48 The population has increased by 8.4% since the boom began in 2001 and is disproportionately young and male.49,50 Fieldwork in FSJ included observations and informal conversations with youth, service providers, and other adults (e.g., via parent meetings on sex education; public health meetings). Eligibility criteria for youth interviews included: 15-25 years old; English-speaking, and self-identified as sexually active. Eligible service providers were employed as health or social service providers in the community. Since FSJ’s reliance on the oil/gas sectors affects everyday life there, we did not limit our sample to oil/gas workers. Rather, we interviewed oil/gas workers, as well as other youth and service providers who interacted with them in a variety of ways (e.g., service providers provided perspectives on sexual health service delivery; most of the women who were interviewed had been in a sexual relationship with an oil/gas worker).

Interviews took one hour each and were semi-structured with open-ended questions, modified to pursue emergent concepts as data collection and analysis progressed.50 Participants were asked to provide their perspectives on STI testing in an oil/gas community, and questions were posed regarding socio-cultural and structural forces that may affect access. Participants also completed a brief sociodemographic survey. Follow-up interviews were conducted with 5 youth, building on concepts that emerged during initial interviews and enabled ‘member checking’ (e.g., asking for youth’s feedback). Interview recordings were transcribed and personal identifiers were removed and transcripts were checked for accuracy against original audiocassettes. The software QSR NVivo was used to manage data coding. During the analysis, an ‘audit trail’ was kept to document analytic decisions. The analysis was conducted by reading through transcripts and field notes to develop a set of codes that organized and described the structure of the data. The data were analyzed to understand how socio-cultural and structural factors affect access to STI testing for oil/gas workers. Ethics approval was obtained from the University of British Columbia and the local health authority.

RESULTS

Sample characteristics

Of the 25 youth participants, 48% (n=12) were male, and their average age was 20 years. Fifty-six percent identified as White (n=14) and 40% as Aboriginal (n=10). Sixty percent (n=15) of youth were students, many of whom worked part time. One third (32%, n=8) 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. Most (72%, n=18) had been tested for STIs (an average of 4 times each). Four public health staff, 6 clinic staff, and 4 social service providers also participated. Most were female (71%, n=10) and White (78%, n=11), and their mean age was 44.

Study findings

The following sections discuss three key factors that participants identified as being associated with the oil/gas ‘boom’ in ways that impact on young oil/gas workers’ access to STI testing.

Limited opportunities to access testing

STI testing is provided through three venues in FSJ: public health, three medical clinics, and the hospital emergency room. Limited hours were described as a substantial barrier to access, since clinics are open during the workday only and close during lunchtime. Testing is available at the public health unit during four appointment times per week, although none of the oil/gas workers we interviewed were aware of this. There is a lack of drop-in testing, which they explained made it difficult for them to access services when needed (e.g., when symptoms appear; after a high-risk encounter). Oil/gas workers explained the difficulties in taking time off work to get tested: “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’ needs: “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: “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 clinics and hospitals (the main modes of accessing STI testing for this population), but were frustrated with the clinical encounters they had experienced within these settings – they did not feel like the service providers could take the time necessary to establish rapport with patients: “It felt like I was wasting the doctor’s time. Like he didn’t want me to be there to do that, and it takes, you know, a minute” (James, 23 years old).

Geographic isolation

Geographic isolation also poses barriers to STI testing for oil/gas workers, most of whom are housed for long periods in remote oil/gas 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. No STI testing is available onsite, although youth and service providers strongly felt that there is a need for it. Some providers suggested that the public health system in the region did not facilitate attempts to 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 from other peoples’ perspectives and putting client needs first – that takes more work" (Service provider).

Health care providers also recounted difficulty completing contact tracing and communicating positive STI test results to clients living in remote camps. 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. Several providers argued in favour of flexible approaches to STI control (e.g., the use of single-dose treatment regimens; the provision of treatment for partners who have not been tested themselves). As one provider explained, "Guys are in here [the clinic] and they get a [STI] test and they’re gone to camp. There’s no way you get a hold of them. [...] You give them the [single dose treatment] because you don’t see them for another two months" (Service provider).

‘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 attitudes and behaviours were described by youth and providers as locally sanctioned and even ‘expected’ among oil/gas workers. One oil/gas worker explained: "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). Not surprisingly, STI testing was perceived as highly stigmatized, and participants explained that oil/gas workers would therefore be very unlikely to seek out information about STIs or testing – especially in the absence of symptoms. 'Rigger' culture also was perceived to affect attitudes and practices regarding sexual dynamics between workers and local women as well. As one young woman who had grown up in FSJ explained: “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. [...] 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 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 had not received any information about STIs 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.

**DISCUSSION**

**Barriers to STI testing for oil and gas workers**

While our results are consistent with literature on STI testing for youth (i.e., inconveniently located clinics, limited hours of operation, stigma), this manuscript elucidates how common barriers to testing are exacerbated for young oil and gas workers. For example, long shifts in oil/gas camps and the substantial distances to STI testing facilities illustrate how the barriers faced by these youth are likely to be more pronounced than those experienced by their southern, urban counterparts. Studies suggest that STI testing and treatment aimed at ‘core’ populations that experience high rates of STIs, concurrent relationships, and partner change may have the greatest effect on reducing STI prevalence. However, circumstances imply severely limited access to STI testing and prevention resources for oil/gas workers. While some resource-extraction companies provide these resources to workers in lower-income countries, such initiatives have rarely been considered in North America.

**Strengths and limitations**

The STI rates presented 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. Purposive sampling was used to construct a sample that provided access to rich and detailed accounts regarding socio-cultural and structural barriers to testing for workers. Some key aspects of our sample should be considered in interpreting our results. First, while we recruited oil/gas workers (one third of our participants), we also interviewed other youth and service providers, whose observations provided additional insight (e.g., local women elucidated barriers to STI testing within the context of their sexual relationships with oil/gas workers). Many participants perceived STI testing to be a topic that was more easily and honestly discussed by community members other than oil/gas workers themselves.

Second, our role as researchers also shaped the data. SG completed the fieldwork and interviews and continued to visit FSJ over the two-year course of the study, which enabled her to develop trusting relationships with participants over time and to obtain insights about local realities (e.g., SG gained a good understanding of the workings of the local public health system by participating in sexual health planning meetings). The rich and detailed stories gathered suggest that using such techniques tapped into deeper insights than would have been documented using traditional methods. Finally, the analysis is based on interpretations of data. To address this, we sought analytic consensus among the research team, who regularly reviewed and directed data analysis; maintained an audit trail; and completed follow-up interviews.

**Action-oriented recommendations**

In light of the expanding populations of young, transient workers linked to resource-extraction ‘boomtowns’ across Canada (e.g., Fort McMurray, Alberta), the public health system is facing a critical moment. The development of new interventions that ‘fit’ with local context could have significant public health benefits. Current service delivery models require young oil/gas workers to overcome several barriers to obtain STI testing. Alternatively, we suggest an active model of STI outreach to this population based on intersectoral partnerships (e.g., between public health, non-profit organizations, and industry). Partnerships can bolster local capacities for outreach, including the provision of information, testing, and condoms to workers on site. For example, we
are working with public health and a sexual health organization to develop a public awareness campaign to promote STI testing, reduce stigma, and increase access to information for oil/gas workers. In addition, our partnership aims to facilitate STI testing and prevention outreach to workers via nursing outreach, self-testing, and/or self-specimen collection in oil/gas camps. Free condoms will also be available in multiple sites in FSJ (e.g., nightclubs, hotels) and in oil/gas sites (e.g., in washroom stalls).

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 health impacts should be investigated (e.g., mental health; addiction). This study is a critical step in improving access to appropriate public health services for these geographically marginalized populations across Canada.

REFERENCES

RÉSUMÉ

Contexte : Le Nord-Est de la Colombie-Britannique reçoit une forte vague d’immigration de jeunes travailleurs, principalement des hommes, en réponse à la forte expansion de l’industrie pétrolière et gazière. Cette expansion s’accompagne chez les jeunes d’une hausse des chlamydioses, dont le taux est supérieur de 22 % à la moyenne provinciale. Comme ils réduisent la charge de morbidité, les tests de détection d’infections transmissibles sexuellement (ITS) sont un outil de prévention à ne pas négliger.

Objectifs : 1) Rendre compte des perceptions, chez les jeunes, des forces socioculturelles et structurelles qui influencent l’accès des travailleurs de l’industrie pétrolière et gazière aux tests de détection d’ITS; 2) recueillir l’opinion des dispensateurs de services quant à la prestation des services de santé sexuelle à ces travailleurs; et 3) élaborer des recommandations afin d’améliorer l’accessibilité des tests de détection d’ITS.

Méthode : Nous avons effectué un travail ethnographique sur le terrain (8 semaines) dans une localité pétrolière et gazière éloignée, en menant des entretiens en profondeur avec 25 jeunes gens (de 15 à 25 ans) et 14 dispensateurs de soins de santé et de services sociaux.

Résultats : Selon nos répondants, le manque d’accès aux tests, l’isolement géographique et la culture machiste du milieu de travail étaient les trois principaux obstacles aux tests de détection d’ITS dans l’industrie pétrolière et gazière.

Discussion : Ces résultats montrent que la lutte contre les ITS exige une approche liée au lieu. Nous proposons des stratégies d’approche novatrices pour répondre aux besoins des travailleurs de l’industrie pétrolière et gazière, dont une campagne d’information adaptée aux conditions locales, la distribution de condoms, le prolongement des heures d’ouverture des cliniques et la prestation de tests de détection d’ITS sur place.

Mots clés : infections transmissibles sexuellement; tests; travailleurs de l’industrie pétrolière et gazière; jeunes; santé sexuelle; Colombie-Britannique