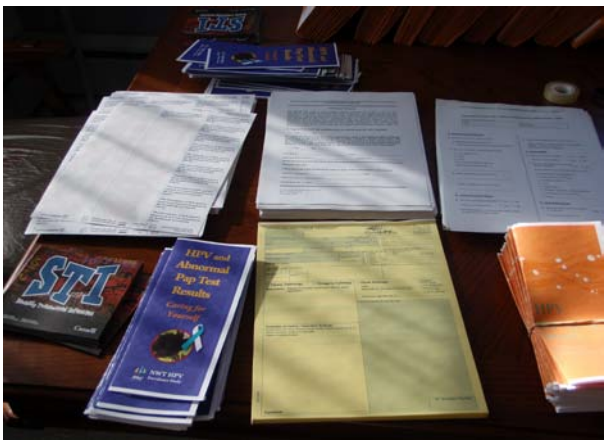
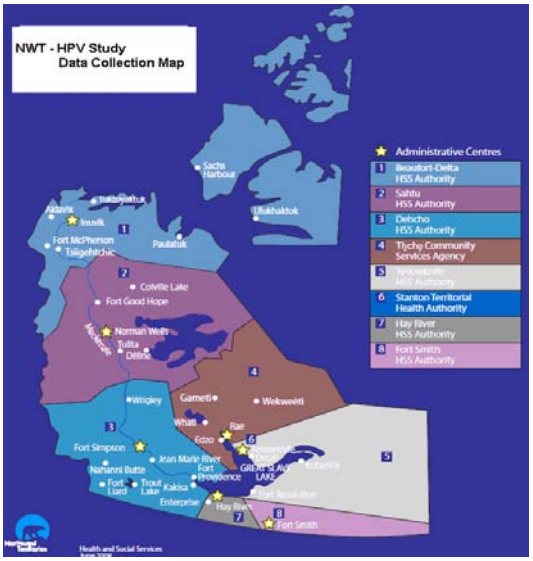
Summaries

Certain types of the Human Papillomavirus (HPV) are highly associated with cervical dysplasia or cervical cancer, but their distribution in the Northwest Territories (NWT) is largely unknown. The purposes of this project are to identify the prevalence of type-specific HPV infection and cervical dysplasia, and to determine the impacts of social, demographic, and behavioural factors on HPV infection among women in the NWT in order to establish more effective programs for cervical cancer prevention and control.

The study population covered all women living in the NWT with no cancer history who undertook routine Pap tests. Data collection was incorporated into the specimen collection of the Pap test and no extra samples were required. Women who agreed to provide their risk factor information were asked to sign a consent form and to answer a questionnaire which was self-administered with nurse assistance. After the Pap testing, the remaining specimens were sent to the National Microbiology Laboratory in Winnipeg for HPV typing using the Luminex assay.

There were two components in this study: component 1- the prevalence of HPV infection. Data mainly came from laboratory results (demographic information, Pap smear and HPV typing); component 2 - HPV risk assessment. Data were created by linking Pap test results, HPV types, and risk factors information. In component 1, data collection was completed in 2009. Anonymous results of Pap and HPV tests were linked using a unique identifier and inputted into a common database. Data analysis is at the final stage. In component 2, data collection ended March, 2010 and data edit and linkage were finished in December, 2010. Data analysis is expected to be completed by June, 2011.





In this study we found the prevalence of HPV infection was elevated in Aboriginal women in the NWT. A relatively high prevalence of non-vaccine types and a relative low prevalence of HPV 16/18 among high grade lesions was observed. The study also revealed that high risk HPV infections were associated with single marital status, less education, being unemployed, early onset of sexual activities, and high number of sexual partners. The output of this initiative will contribute to national HPV surveillance goals as well as inform cervical screening programs in participating jurisdictions. Combining these results with previously collected surveillance data from this and other regions will allow for the accumulation of a more robust sample size and increase the power of future analyses. The simplicity of the protocol will minimize the burden of data collection and specimen processing when the design has adopted in other jurisdictions.

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