

Prevalence of cervical intraepithelial neoplasia and cervical cancer among Inuit women in 2005, Nunavik, Quebec, Canada

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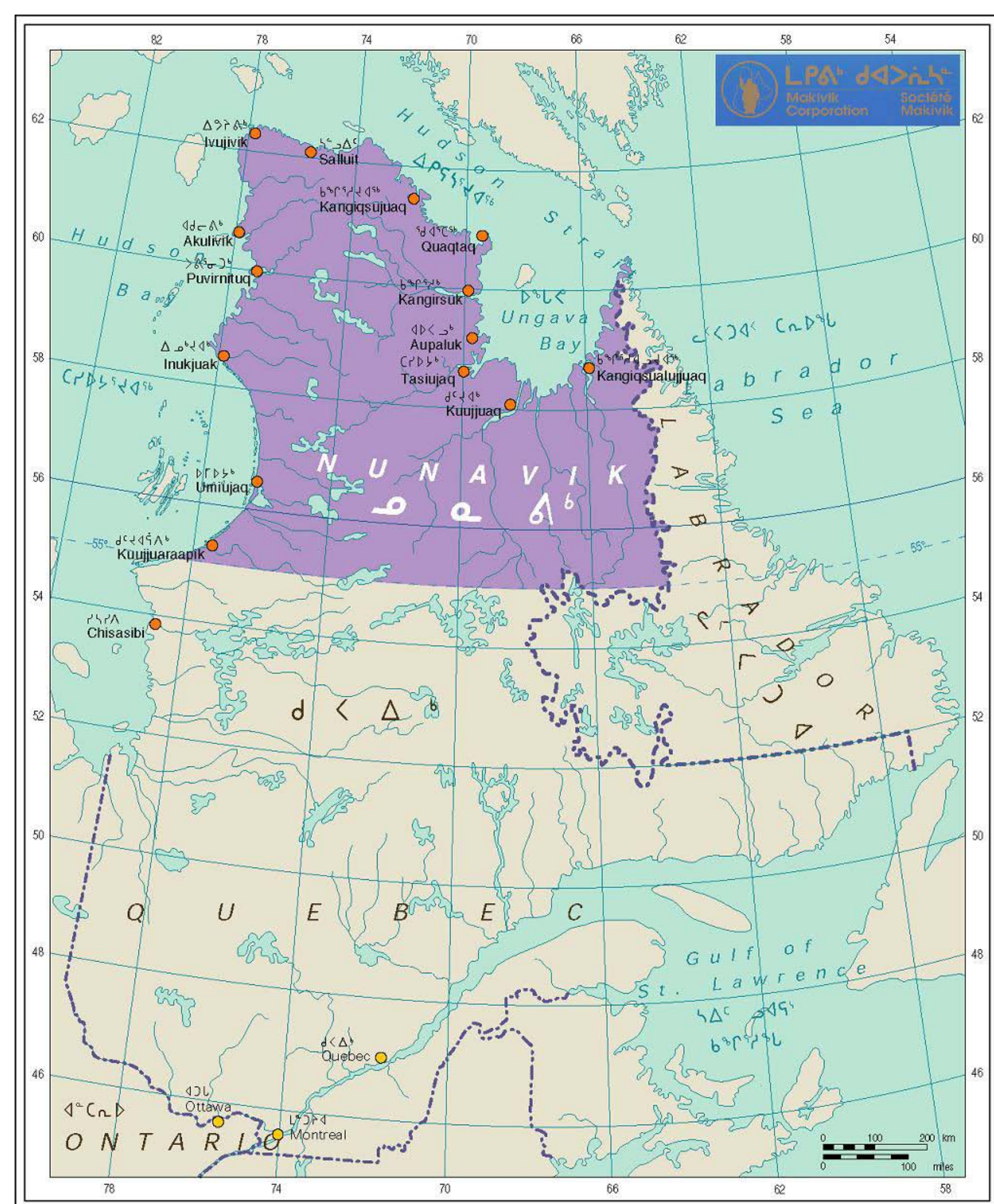


Background

Incidence and mortality rates of cervical cancer in First Nations have shown an increasing trend across Canada and the United States. In British-Columbia (Canada), Band and *al.* (1991) associated this high risk with a low participation to provincial screening program.

The two new vaccines against HPV have the potential to becoming key players in enhancing protection against cervical cancer and its precursor lesions, which can be even more significant in remote regions where cervical screening is not always available. In order to determine their effect, it is important to get have baseline statistics such as the prevalence of cervical cancer and cervical intraepithelial neoplasia (CIN). In Quebec, the Inuit population is spread over fourteen villages in the Nunavik territory, north of the 55th parallel (Figure 1). Little is known about the prevalence of cervical abnormalities occurring in these communities.

Figure 1. Nunavik territory, province of Quebec, Canada



Objective

Estimate the prevalence of CIN and cervical cancer in Inuit women from Nunavik (Quebec, Canada).

Methods

In 2004, a large health survey of Inuit living in Nunavik was conducted. It included the 14 communities of the territory. The aim of the survey was to collect social and health information on several health indicators and determinants, physical measurements, social, environmental and living conditions for updating the health and well-being profile of the population.

A total of 513 women gave their consent for reviewing their medical charts. Charts were reviewed by two nurses and information on cervical abnormalities was collected. Information on age and Pap test was taken from the survey. Prevalence of women ever diagnosed with cervical cancer or treated for CIN was calculated and weighted in order to take into account the sampling strategies.

Results

The mean age of participating women was 37 years.

Figure 2. Prevalence of cervical cancer among Inuit women was 0.9%. The highest prevalence was observed among women aged 55-64 and 65+ (4.7% and 5.9% respectively). Overall, 5.4% of women had a previous diagnosis of CIN. This proportion was highest in women aged 25-44 years (8.0%) and lower among those aged 45-54 (2.4%).

Results (continued)

Figure 3. Approximately 2.1% were CIN I, 1.7% were CIN II, 2.4 % were CIN III/cancer in situ, 0.2 % had severe dysplasia, and 0.5 % had unspecified abnormalities.

Figure 4. Over 77% of women reported having had a Pap test in the last 2 years. This proportion was 72.3% for those aged 18-24 years, 84.7% for those 25-34, 80.3% for those 35-44, 80.0% for those 45-54, 71.0% for those 55-65, and 46.0% for those 65+.

Figure 2: Prevalence of cervical cancer and CIN among Inuit women by age group, 2005

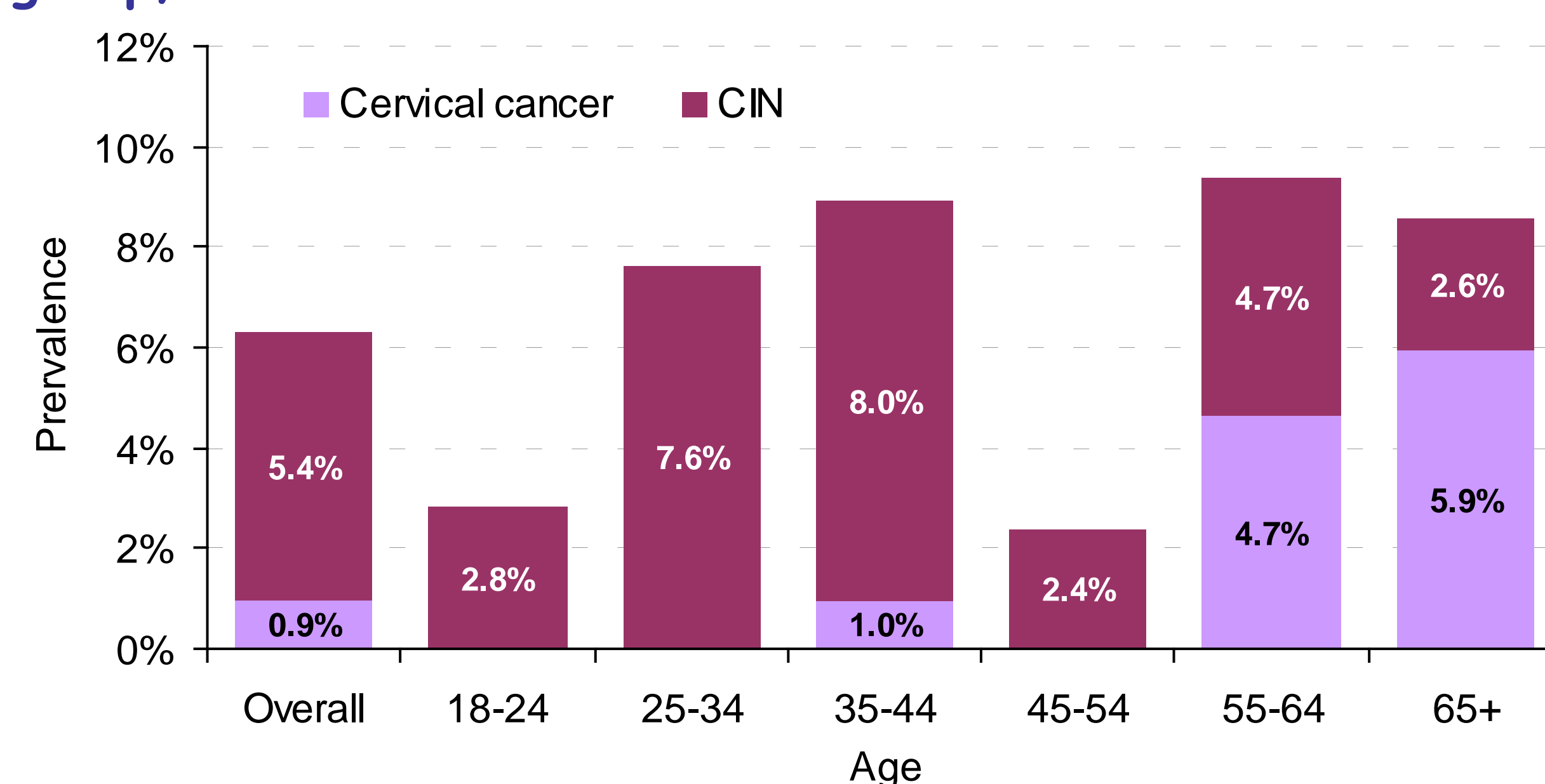


Figure 3. CIN prevalence among Inuit women according to grade, 2005

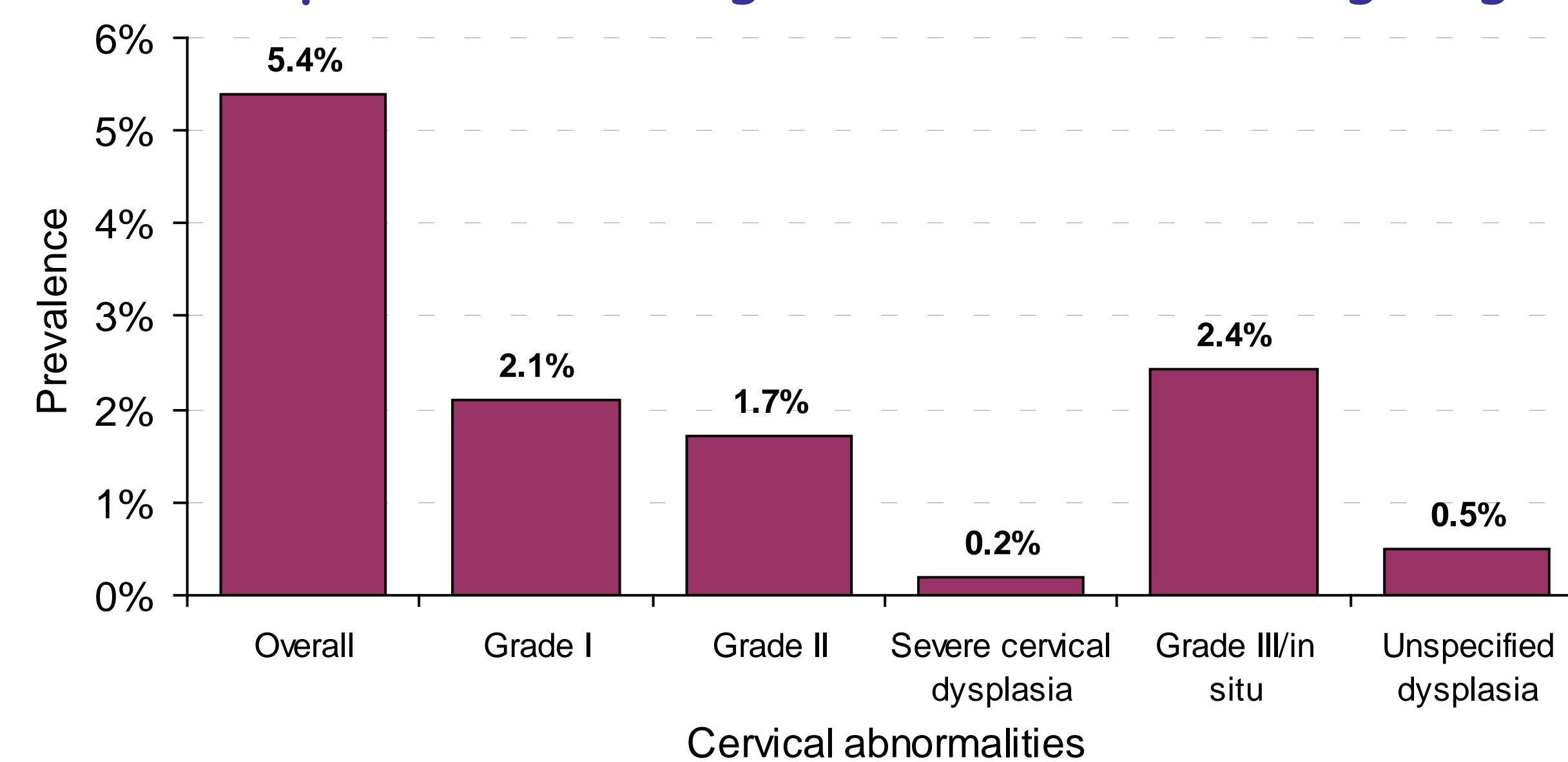
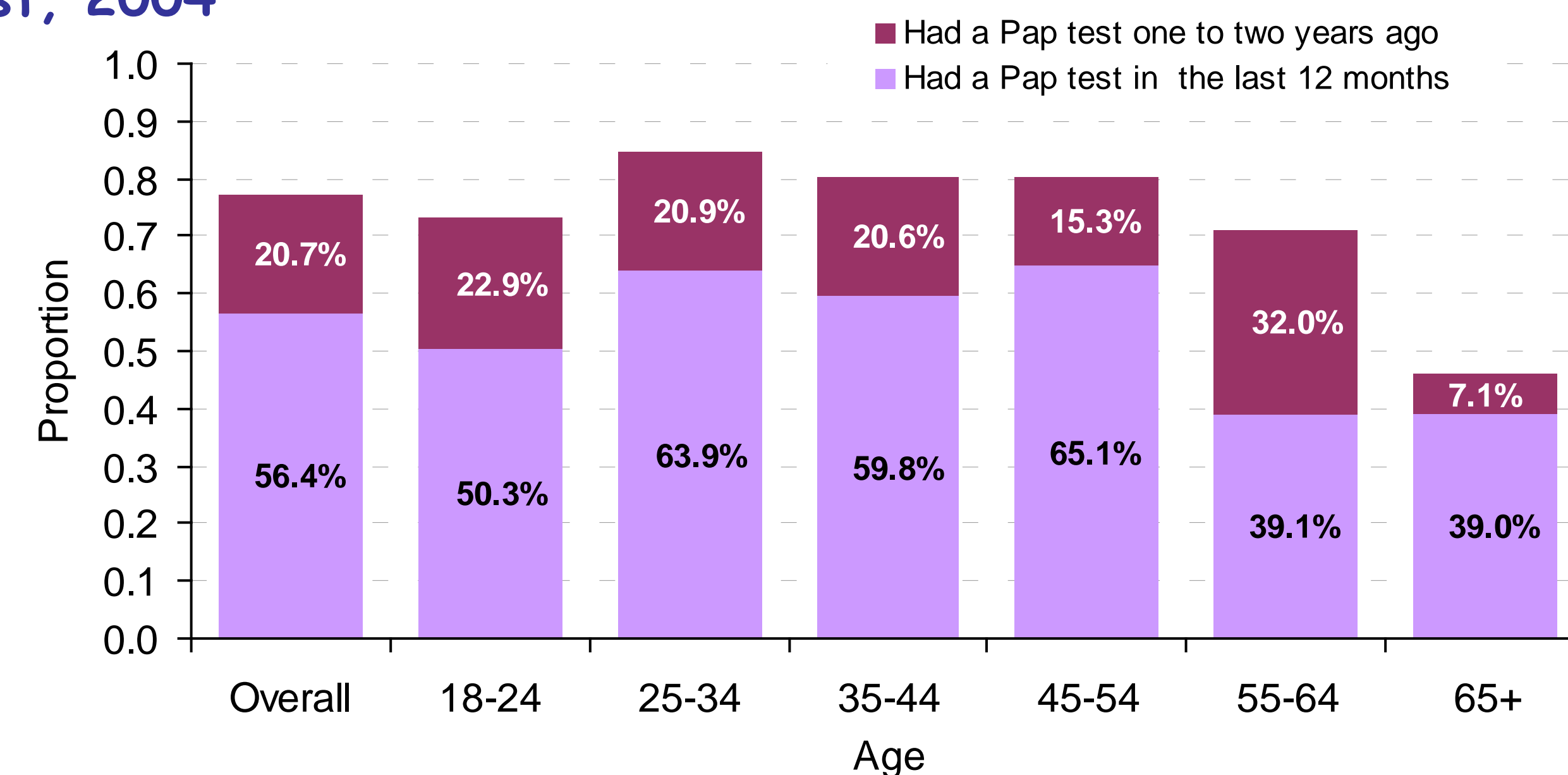


Figure 4: Proportion of Inuit women that reported having had a Pap test, 2004



Conclusion

Women aged 55 years and older reported lower participation to Pap test screening and had a higher prevalence of cervical cancer. Women aged 25-54 years were screened more often than the other groups, those aged 25-44 were diagnosed more often with CIN and low/no cervical cancer, and those aged 45-54 had lower CIN prevalence and no cervical cancer. Quebec Inuit women had a risk of CIN 12 times higher than their Quebec counterpart. Indeed, the 15-years cervical cancer prevalence was estimated at 0,079 % in 1999 in Quebec women whereas it was at 0,94 % among Quebec Inuit women.

Screening coverage should be increased in Inuit women 55 years of age and older. Vaccination of young Inuit women has the potential to reduce the burden of cervical abnormalities in these communities