

MODES Update – June 2016

Two manuscripts have been written and submitted for publication. The first paper is entitled “Prior testing history and incidence of sexually transmitted infections of HIV-positive individuals and their HIV-negative controls”. This paper examines the testing pattern of chlamydia and gonorrhoea among HIV-positive adults as a proxy of their interaction with Manitoba’s healthcare system prior to their HIV diagnosis, and it provides insights on whether opportunities for HIV prevention and earlier diagnosis might have been missed. By matching HIV cases to their HIV-negative control counterparts based on age, sex and region of residence, comparison of their clinical, STI lab testing and surveillance data show that in the 5 years before their first engagement with the Manitoba HIV program (i.e. first HIV clinic visit), the chlamydia and gonorrhoea testing rates were 3 times higher among people who were later diagnosed with HIV than those who remained HIV-negative. As well, HIV-positive adults were 3- and 12-times more likely to have had chlamydia and gonorrhoea in the same 5 year period than HIV-negative individuals. Because HIV disproportionately affects vulnerable people who are often marginalized, it is generally believed that the structural and other environmental factors driving their vulnerability may also hinder their ability to access care. However, this study has shown that potential opportunities to prevent HIV or for early diagnosis were missed among those who later contracted HIV despite their frequent interactions with healthcare in the context of STI testing. It suggests that better coordination between primary care and public health is needed to improve efforts to prevent HIV and to promote early diagnosis. This paper is under preparation for submission to *HIV Medicine*.

With a similar focus on “missed opportunities”, the second paper entitled “Prior history of testing for syphilis, hepatitis B and hepatitis C among a population-based cohort of HIV-positive individuals and their HIV-negative controls” investigates the pattern of serological testing for these STBBIs preceding HIV diagnosis. Using the same methodology, this study found that compared to those with no history of serological testing, having one serological test in the 5-year period prior to entering MHP was positively associated with HIV infection (odds ratio = 1.9). The odds of HIV infections increased to 5.5 with two or more serological tests in the same period. Among HIV individuals who had at least one serological test, the median time between their first clinic visit and the most recent serological test prior to that first clinic visit was about 2 years among HIV-positive individuals, and the median time between that first clinic visit and the first serological test was almost 5 years. In line with results from the first paper, this study indicates that there is potential to expand HIV prevention and early diagnosis efforts in the context of STBBI serological testing. This paper has been accepted for publication in *AIDS Care*.

Ongoing analyses are planned to further examine the issue of missed opportunities in Manitoba. Immediate topics include healthcare utilization pattern among positive individuals prior to their HIV diagnosis and differences in healthcare encounters between late- and early-presenters.