Epidemiological and economic evaluation of NSPs for Aboriginal and Torres Strait Islanders

The proportion of NSP survey respondents that were Aboriginal and Torres Strait Islanders was used to estimate the number of needles and syringes distributed to this population. Other available data for this population subgroup were also used (see Appendix B).

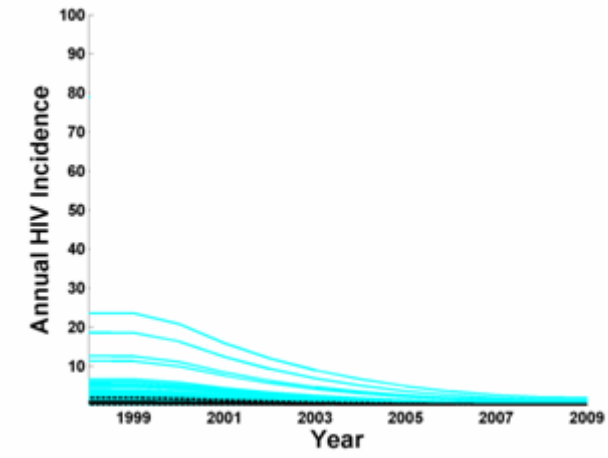
The number of IDUs who are Aboriginal and Torres Strait Islanders has been steadily increasing over the last decade. It is not precisely known how many needles and syringes are distributed through NSPs to this population group, but it is estimated that approximately 7.5-9% of all NSP clients are Aboriginal and Torres Strait Islander people. The average frequency of injecting among Aboriginal and Torres Strait Islander people who are IDUs has been decreasing over the last decade, as has the average rate of sharing. Despite this, the prevalence of HCV among Aboriginal and Torres Strait Islander IDUs is estimated to be steadily increasing (probably due to the increasing population). It is known that the rate of HIV in this population is low with less than 1% of HIV detected over NSP survey collection period 1995-2007.

Evaluating current NSPs

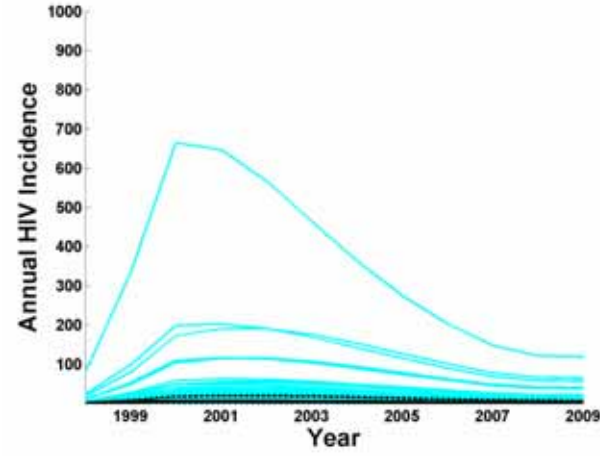
The epidemiological transmission model for HIV and HCV was applied to the population of Aboriginal and Torres Strait Islander IDUs. The model estimated the expected number of HIV and HCV cases among Aboriginal and Torres Strait Islanders with and without NSP distribution of sterile injecting equipment (Figure 64). The estimated number of infections averted is presented in Figure 65. An estimated 39 (0-140) HIV infections and 4,241 (4,057-4,841) HCV infections have been averted in Aboriginal and Torres Strait Islanders due to NSPs.

Figure 64: Estimated HIV and HCV incidence among Aboriginal and Torres Strait Islanders with and without NSPs

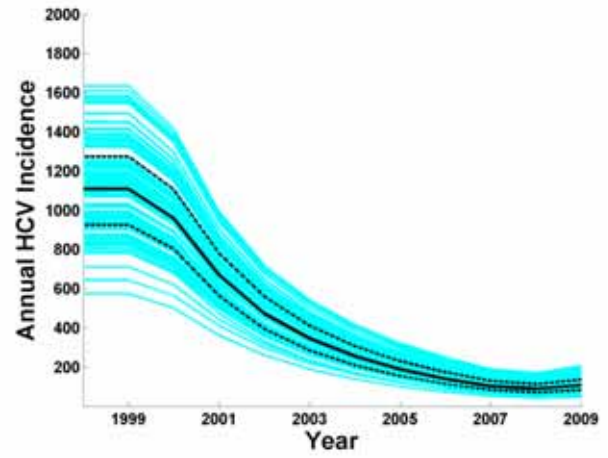
HIV cases with NSPs



HIV cases without NSPs



HCV cases with NSPs



HCV cases without NSPs

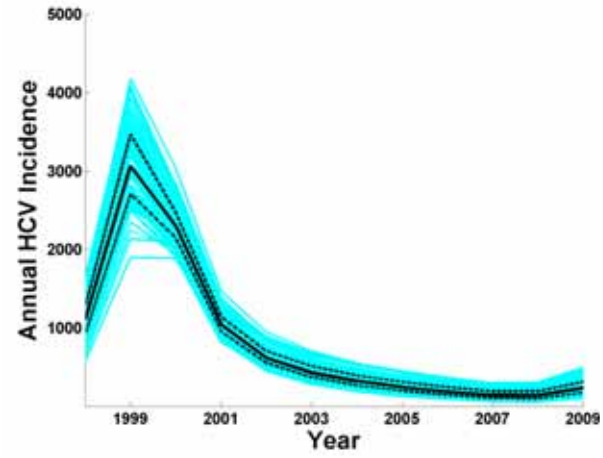
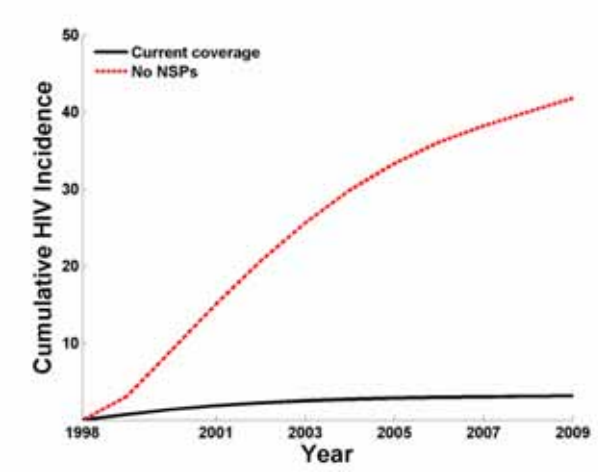
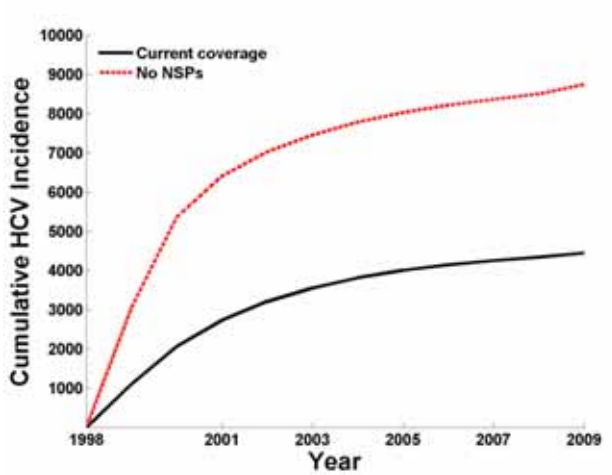


Figure 65: Estimated cumulative number of HIV and HCV cases averted among Aboriginal and Torres Strait Islanders due to NSPs

HIV



HCV

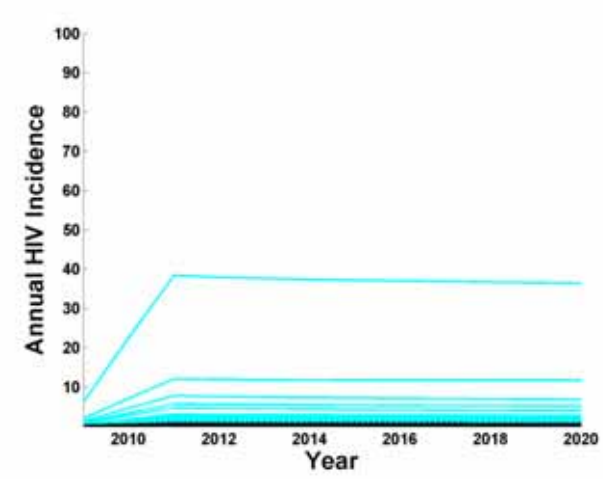


Epidemic projections in Aboriginal and Torres Strait Islanders

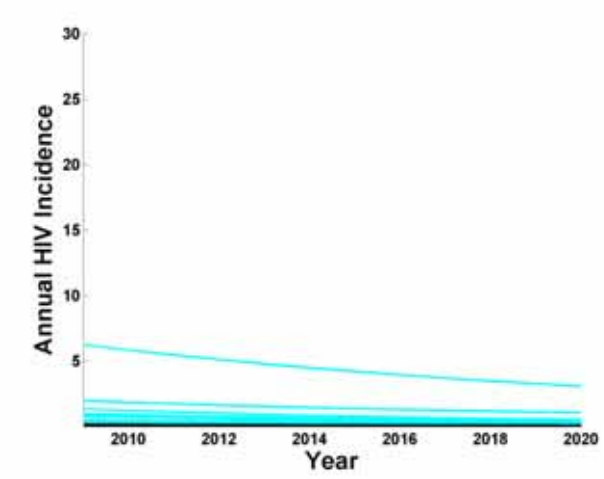
The Aboriginal and Torres Strait Islander model was used to calculate projections of the expected number of HIV and HCV cases in the future, according to scenarios whereby current syringe distribution levels are maintained or if there are increases or decreases in the provision of syringes to Aboriginal and Torres Strait Islander people through NSPs.

Figure 66: Projections of the expected number of HIV cases among Aboriginal and Torres Strait Islanders according to different syringe distribution levels

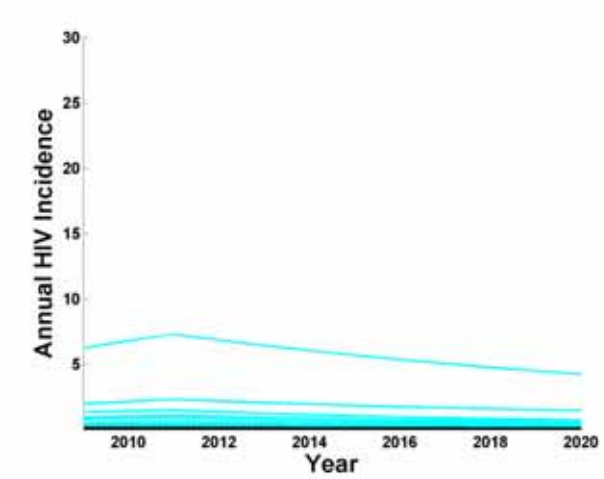
No NSPs



Current NSP distribution



NSP coverage decreases by 25%



NSP coverage increases by 25%

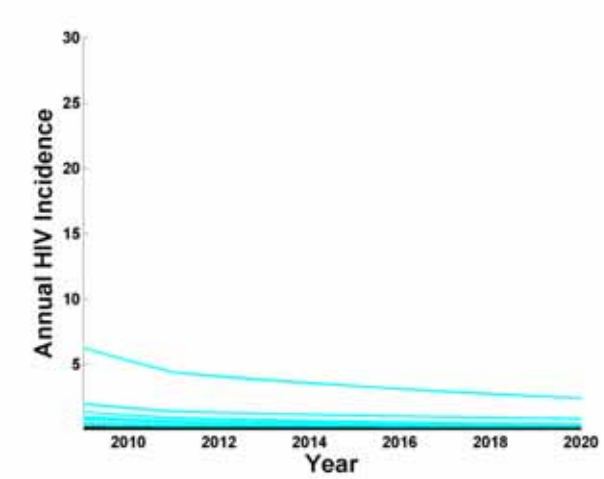
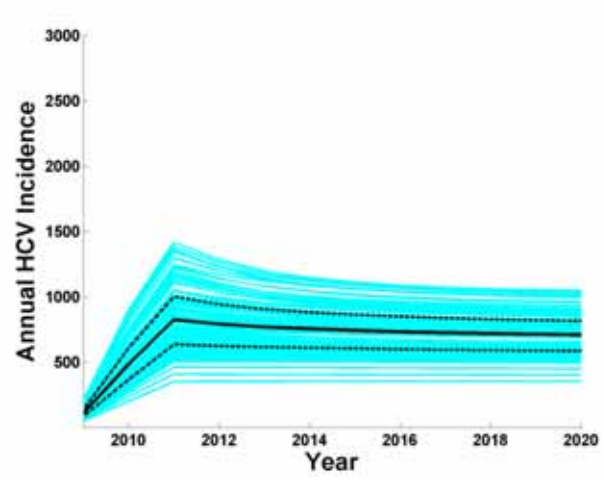
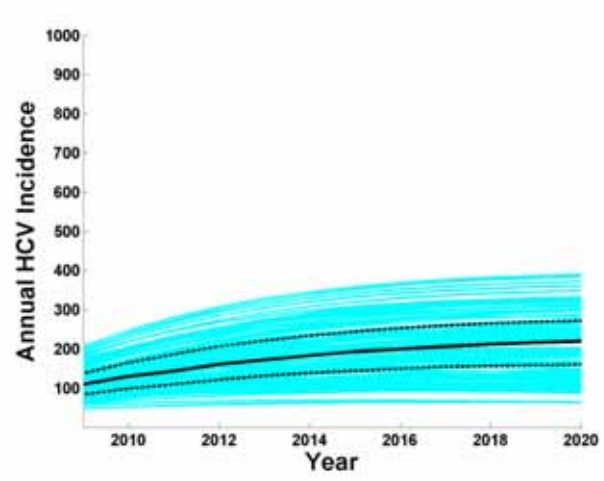


Figure 67: Projections of the expected number of HCV cases among Aboriginal and Torres Strait Islanders according to different syringe distribution levels

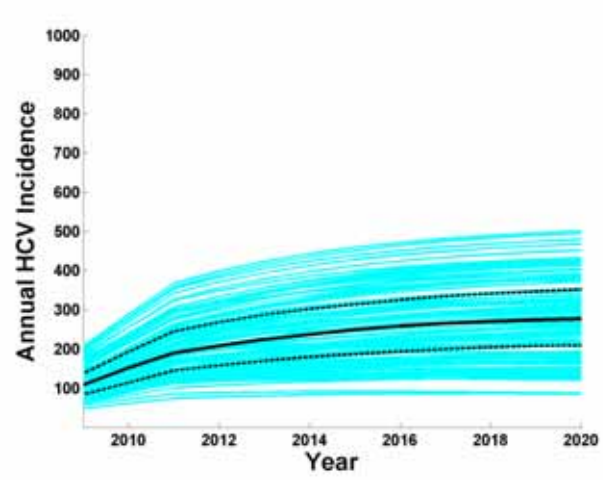
No NSPs



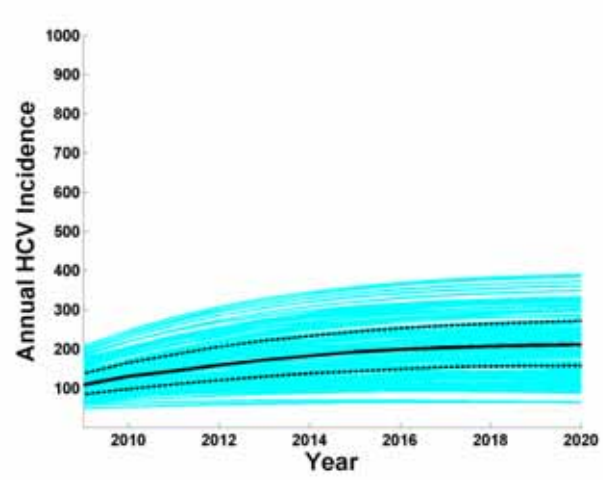
Current NSP distribution



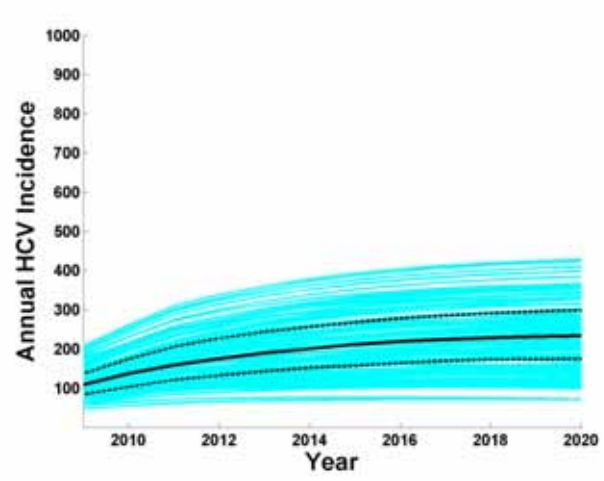
NSP coverage decreases by 25%



NSP coverage increases by 10%



NSP coverage decreases by 10%



NSP coverage increases by 25%