Prisons and public health

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"Disease is not just going to stay in prison. We are all going home. We are going out to our families. It affects society."

Harold ("Buck") Griffin
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Hepatitis C virus (HCV) is increasingly a serious health issue for people living with HIV in the developed world, where more than 30% of HIV-positive individuals are also estimated to be infected with HCV.[1] Untreated, HIV/HCV co-infection accelerates the progression to cirrhosis and its many complications.[2] Unfortunately, the treatment of HCV in the setting of HIV is also associated with lower response rates and is complicated by drug interactions and toxicity.[3] In this issue of *Open Medicine*, Rourke and colleagues[4] present the findings of their research on the social determinants of health associated with HIV/HCV co-infection. In this cohort study, co-infected individuals were more likely to report illicit drug use, a history of homelessness and a history of incarceration than those infected with HIV alone.

These may not be novel findings with respect to HCV and HIV demography. Previous studies have identified injection drug use (IDU) as the major risk factor for acute HCV infection and a major risk factor for HIV infection.[5,6] IDU, in combination with lack of access to sterilized needles and rigs, previous incarceration, tattooing and high-risk sexual behaviours, is responsible for most of the new HCV infections in prisons.[7] Both HIV and HCV flourish in prisons: we already know that the prevalence of HIV and HCV infection in Canadian prisons may be as much as 10 and 20 times higher, repectively, than in the general Canadian population.[1] It is not surprising that the most marginalized among those living with HIV are also the most likely to be co-infected with HCV.

The ethical dilemma arising from these findings is twofold. First, this study corroborates earlier findings that when we incarcerate individuals, whether with the intention of punishment, reform, or the protection of society, we do more than curtail their civil rights: we also place the incarcerated at high risk of infection and disease. Second, because inmates do not remain in jail indefinitely, we then wittingly expose the population at large to potential infection when prisoners are returned to the community. It is time to stop being polite about the facts: above and beyond citing IDU and history of incarceration as risk factors for HIV and HCV infection, we need to be explicit that the experience of being incarcerated is itself a likely mode of infection. A recent systematic review regarding tuberculosis rates in prisons acknowledged the paucity of reliable data on the subject but estimated that 8.5% of cases of tuberculosis in the general population of high-income countries (mostly US data) is attributable to exposure to tuberculosis in prisons.[9] Prisons very specifically function as a focal point of disease transmission.

Where do we assume responsibility in this regard? In 2008/2009, a total of 39 098 people were incarcerated in Canada; this represents an incarceration rate of 117 per 100 000 population.[10] Although lower than the rate in the United States, Canada's incarceration rate remains higher than that of most Western European countries.[10] The current Canadian government has called for and implemented "tough on crime" laws that will lead to the imprisonment of more people or longer periods of time.[11] We must examine the public health impact of intensifying incarceration legislation—both within and beyond prison walls. We need to amplify the surveillance and treatment of infectious diseases in prison settings and to implement strategies, such as prison-based needle and syringe programs[12] and addiction treatment[13] that will improve and protect the health of prisoners and those working with them. And, although confirming associations between marginalization and disease is important, we equally and urgently need to improve the health and health care of those most at risk, with the hope of reducing the burden of HIV and HCV in the community.

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