

Spread of TB in prisons increases the incidence of TB in the general population

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The risk of tuberculosis (TB) and latent TB (in which the bacteria that cause TB lie dormant but can reactivate later to cause active TB disease) is higher in the prison population than in the general population. And importantly, the spread of TB and latent TB within prisons can substantially increase their incidence in the general population. These key findings from a systematic review by Iacopo Baussano from the University "Amedeo Avogadro", Italy, and the Imperial College, London, UK, and colleagues and published in this week's *PLoS Medicine*, suggest that improvements in prison TB control would not only help to protect prisoners and staff from within-prison spread of TB, but would also reduce national TB burdens.

Using previous findings from published studies and data from the World Health Organization, the authors calculated the ratio between the incidence rates for TB and [latent TB](#) in prison and in the [general population](#). The average incidence of TB in prisons was 23 times higher than that of the general population, and for latent TB, was 26 times higher in prisons than in the general population. The authors also estimated the fraction of TB in the general population attributable to within-prison exposure to TB and found that, on average, the population attributable fraction for TB in high-income countries was 8.5% (that is, one in 11 cases of TB in the general population was attributable to within-prison spread of TB); in middle-to-low-income countries, the average the population attributable fraction for TB was 6.3%.

The authors say: "These data may prove useful to inform the

development of rational policies to control TB transmission in correctional facilities." They add: "Future studies should assess the population attributable risk of prison-to-community spread and describe the conditions in the prison that influence TB transmission."

In an accompanying editorial, the *PLoS Medicine* editors conclude: "The publication of this systematic review marks a shift from considering the incidence of TB in each [prison](#) population to considering the massive global impact of [tuberculosis](#) in prisons."

More information: Baussano I, Williams BG, Nunn P, Beggiato M, Fedeli U, et al. (2010) Tuberculosis Incidence in Prisons: A Systematic Review. *PLoS Med* 7(12): e1000381. [doi:10.1371/journal.pmed.1000381](https://doi.org/10.1371/journal.pmed.1000381)

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