TB and prisons

As an airborne disease, TB thrives in the crowded, poorly-ventilated environments found in prisons in many parts of the world. Conditions of prison life including malnutrition and stress can also contribute to a higher risk of developing TB disease, and inadequate or inaccessible medical care can lead to poor treatment outcomes and acquisition of resistance. Prisoners disproportionately come from marginalized socioeconomic backgrounds — including substance users, homeless people, people with mental illness, ethnic minorities, asylum seekers and immigrants — and therefore often enter the prison system with an existing high prevalence of TB infection or even with active disease. Prisons also contribute to overall TB burden in that they are not entirely closed systems: TB can be spread to prison staff and visitors, and at some point most prisoners are released into the general population.

The WHO European Region is currently the only region that systematically collects and analyses data from Member States on the burden of TB in prisons. As is likely the situation in most countries around the world, the burden of TB in prisons in European countries is disproportionately high and often makes a considerable contribution to overall country case notifications. Notification rates of new TB cases in prisons in all reporting countries were multiple times higher than the rates found in the general population (relative risks ranging from 4 to 180), and were over 1000 per 100 000 detainees in Azerbaijan, Georgia and Kyrgyzstan (2500, 3300 and 3000 per 100 000 detainees, respectively) in 2011. Among reporting countries, case notifications from prisons accounted for over 10% of national notifications of new TB cases in Georgia (19%) and the Russian Federation (11%) in 2011. Given that some countries in the region have not been able to report data on TB notifications in prisons and that limited data are available on trends, the contribution of TB notifications in prisons to overall TB notifications in the region is uncertain.

To reduce the burden of TB in prisons, a comprehensive package of measures is required. These include early diagnosis using systematic screening and rapid diagnostics, proper infection control, improved living conditions and nutrition, supervised and complete TB treatment with appropriate drugs, treatment of comorbidities including HIV, diabetes, hepatitis and substance use disorders, and continuity of care in the public sector when a prisoner under treatment is released.

The Russian Federation was successful in introducing several measures that significantly reduced the burden of TB in its penitentiary system (Figure B3.3.1). By reinforcing systematic screening, improving infection control measures, strengthening treatment, and building cooperation between the Ministry of Justice, Ministry of Health institutions, and international partners, TB notification rates decreased sharply from 4347 cases per 100 000 detainees in 1999 (i.e., TB was detected in 1 of 25 detainees in 1999) to 1387 cases per 100 000 detainees in 2006. The decrease since 2006 has been gradual, reflecting the continuing challenges facing TB control in the penitentiary sector, including rising rates of TB/HIV co-infection and drug-resistant TB, as well as the continued concentration of socioeconomically marginalized people entering the prison system. Of note is the higher notification rate found in the pre-trial detention centres compared with correctional facilities in 2011 (1588 compared with 1179 per 100 000 detainees, respectively), reflecting in part the underlying high prevalence of TB infection and disease among socioeconomically marginalized people who enter the pre-trial detention centres from the general population.

In Eastern Europe, drug-resistant TB has been associated with detention and in many countries prisons have had to deal with substantial caseloads of MDR-TB patients. The provision of effective MDR-TB care for prison inmates is therefore important. The possibility of close monitoring of imprisoned patients may also be conducing to achievement of good treatment outcomes. For example, data from the penitentiary sector in Azerbaijan show treatment success rates in the range 65%–81% in the 2007–2009 patient cohorts treated in accordance with WHO-recommended standards.

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**Figure B3.3.1**

TB notification rate in the prison facilities of the Russian Federation (1999–2011), overall and disaggregated by pre-trial detention centres and correctional facilities

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