



# TUBERCULOSIS IN PRISONS: A GROWING PUBLIC HEALTH CHALLENGE



*Prisoner with Tuberculosis in  
Matrosskaya Tishina, Moscow's  
main prison. (©Jeremy Nicholl)*



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Photo by: Niklas Bergstrand/MSF

## Tuberculosis incidence is 5 to 70 times greater in prisons than in communities.



Over the last century, global control efforts have reduced the incidence and prevalence of tuberculosis (TB) in many countries. However, TB in correctional settings (e.g., jails, prisons, detention centers) remains a growing problem. There are approximately 10 million individuals who are detained worldwide. Inmates are at greater risk of developing TB than people in the general population due to their close, prolonged indoor confinement and other associated conditions common among inmates. TB incidence is 5 to 70 times greater in prisons than in communities. Prisons are often high-risk environments for TB transmission because of severe overcrowding, poor nutrition, poor ventilation and limited access to often insufficient health care. Prisoners are overwhelmingly male, are typically aged 15–45 years, and come

predominantly from poorly educated and socioeconomically deprived sectors of the population where TB infection and transmission are higher. Offenders often belong to minority or migrant groups and live on the margins of society. Prisoners are also more likely to suffer from other debilitating diseases and have additional health problems such as drug addiction, alcoholism and liver disease.

Improving TB control in prisons can benefit society at large. Prisons act as a reservoir for TB, pumping the disease into the civilian community through staff, visitors and inadequately treated former inmates. Dealing with TB in prisons, therefore, must be an integral part of any public health policy aimed at controlling and ultimately eradicating the disease.

## TB and HIV Prevalence in Select Areas

	National HIV Prevalence (%)	Prison HIV Prevalence (%)	National TB Prevalence (/100,000)	Prison TB Prevalence (/100,000)	TB/HIV Co-infection (%)
Tanzania	6.0	5.6	183	4,000	25
Malawi	12.0	14.0	174	1,080	74
Zambia	14.0	21.6	345	2,200	55
Kazakhstan	0.2	3 to 15	168	1,538	2
Indonesia	0.3	1.1 (male)-6.0 (female)	281	2,100-4,400*	4
Eastern EU and Central Asia	1.0	9 to 26 (range)	104.4	1,453 to 1,929 (range)	6.2

\*estimates

## PRISON CONDITIONS

Prisons provide ideal conditions for TB transmission. The bacterium causing TB is distributed by very small aerosol droplets that are produced when someone with active TB coughs, sneezes, spits or speaks, enabling one person to infect many others. Therefore, the risk of TB being transmitted in settings in which people are in close contact – as in prisons – is particularly high. Numerous other risk factors, such as poor health services frequently encountered in prisons, poor nutrition, drug addiction, and the presence of other conditions, such as HIV infection, predispose imprisoned people to a high risk of TB incidence. The combination of overcrowding, poor ventilation and lack of screening for TB turns prisons into breeding grounds and incubators for TB. This also leads to the transmission of the disease among prison staff.

## INADEQUATE TREATMENT

Prison health services are often minimal or nonexistent due to insufficient funding, and in many cases, lack of human rights. Prisoners are often admitted to cells without being given a health check and are mixed together in confined settings ideal for the spread of disease. Restrictions on access to health care may be compounded by health service staff who are unmotivated owing to poor salaries, or a lack of basic training about TB. Furthermore, prisoners often do not adhere to prescribed treatments. These inadequately treated prisoners are at high risk of developing resistant strains of TB, such as multidrug-resistant TB (MDR-TB), which can subsequently spread among their fellow inmates. HIV further compounds the problem. It is estimated that HIV co-infected TB patients have 67% higher odds of developing MDR-TB compared to non HIV-infected individuals with TB. Additional obstacles to tackling TB in prisons include insufficient infection control measures as well as a lack of satisfactory medical facilities and resources.

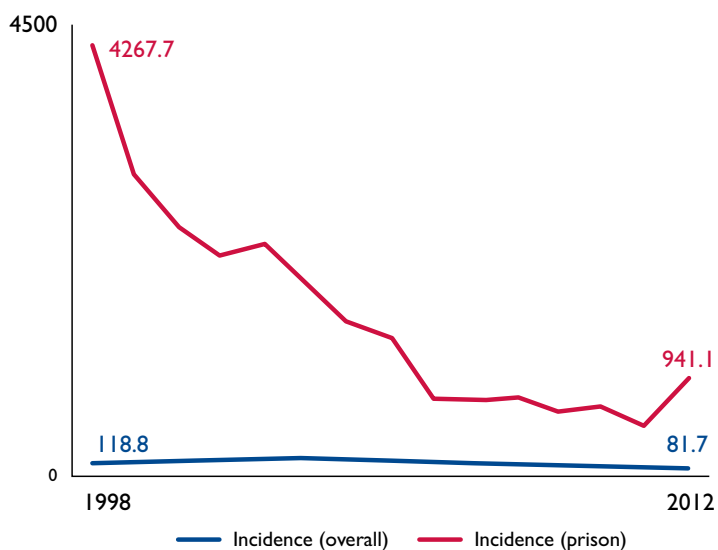


*In prisons, overcrowding, poor nutrition and lack of proper ventilation cause inmates to be much more likely to be infected with tuberculosis, a disease caused by an airborne bacteria. (Photo by: John Rae, The Global Fund)*



Aid efforts help facilities such as Gitarama Central Prison in Kigali, Rwanda, which is designed to house 500 prisoners, but at one time held up to 6,000, and where one in eight prisoners dies of disease or violence. (Photo by: REUTERS/Corrine Dufka)

## Kazakhstan, TB Incidence (/100,000 population), 1998-2012



Data: National TB Program, MOH and Ministry of Internal Affairs

## ADDRESSING TB IN PRISONS

Considering the basic premises that 1) the health of prisoners and inmates is an integral part of the health of the wider community; 2) the diagnosis of TB and resistant forms of TB is not often readily available in correctional settings; and 3) poor medical management of patients in correctional settings and/or inadequate follow-up of released prisoners with TB can undermine prevention and control efforts in society at large, international partners have outlined 12 comprehensive action points to address this growing public health challenge.

1. **Adapt and implement the internationally recommended Stop TB strategy** in correctional settings.

**Conduct screening** of new inmates and periodic screening of prisoners and penitentiary services staff to detect active TB in a timely manner.

**Ensure airborne infection control**, including protective measures for staff, and promote provider-initiated HIV testing and counseling to detect HIV and TB-HIV co-infected individuals.

**Provide access to early diagnosis and effective treatment** of all types of TB, including drug-resistant TB and TB co-infection with HIV and/or other communicable diseases.

**Ensure early initiation of antiretroviral therapy** for people living with HIV who have active TB.

**Provide preventive therapy** both for those individuals who become infected with TB in penitentiary services and for those found to be infected while in penitentiary services (with the condition that the aforementioned elements of TB prevention and control are ensured).

**Ensure a continuum of care** for released prisoners who are on treatment for TB and for individuals who are on treatment before entering the penitentiary system.

**Monitor the TB and TB-HIV situation** in the correctional system, including recording and reporting of TB, HIV and other communicable diseases for prison populations and linking the information to the national health surveillance system.

**Encourage and facilitate collaborative efforts** between the penitentiary and civilian health services.

**Provide psychological counseling and support** for prisoners to improve TB and HIV treatment adherence.

**Strengthen TB control** in penitentiary-based programs by raising awareness about TB among inmates and penitentiary medical and non-medical staff.

**Promote operational research** to build evidence for enhanced TB prevention, control and care in correctional settings.

Private aid programs are screening more prisoners in Cambodia, where TB is four to six times more prevalent in prisons than among the general population. (Photo by: Christine Wagari/MSF)



## USAID IS CONTRIBUTING TO SOLUTIONS

USAID's leadership and leveraging role is crucial for strengthening overall TB prevention and control, ranging from policy development, to health systems strengthening, to scale-up of innovative technologies and approaches. Working in close collaboration with national and international partners and stakeholders, USAID addresses the growing public health problem of TB in correctional settings by developing policy guidelines and recommendations, screening inmates, strengthening health services in prisons, improving infection control measures, training medical and non-medical penitentiary staff, and establishing community linkages for post-release follow-up and treatment continuation. Successes include:

- In **Kyrgyzstan**, USAID-supported programs have established critical referral and linkage services for prisoners who are discharged from correctional facilities with active TB and in need of treatment continuation.
- In **Kazakhstan**, USAID promoted an innovative case-management model of outpatient psycho-social support system and established a multi-disciplinary team including social workers, nurses and psychologists for MDR-TB patients, including ex-inmates, to improve treatment continuation and completion. Treatment interruption for more than 400 enrollees decreased from 18 percent to 4 percent.
- In **Indonesia**, USAID supported the development of TB policies and guidelines that led to the screening of 30,941 prisoners in FY 2012.
- In **Vietnam**, USAID has supported the development of a multi-sectoral plan for TB, HIV, and MDR-TB in prisons in collaboration with the Global Fund. This plan includes a model of care and social support for prisoners once they are released to ensure that they finish their treatment.
- In **Zambia**, USAID is supporting introduction of a new diagnostic tool, Cepheid Xpert® MTB/RIF assay, in correctional settings.
- In **Tajikistan**, USAID-supported programs target strengthening communication between the administrative and medical prison departments to ensure effective discharge planning and linkages with civilian TB control for treatment continuation of released inmates with active TB.



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