Abstract

Tuberculosis is thought to be the single biggest cause of death among the world's prisoners, but a human rights approach to tuberculosis control has not yet been applied. We propose that existing guidelines for the control of HIV be adapted and applied to tuberculosis. Tuberculosis control in prisons provides a platform to develop these concepts.

De part le monde, la tuberculose est considérée comme la cause principale de mortalité chez les incarcérés, mais il n'existe encore pas de méthode de contrôle de la tuberculose qui prend en compte les droits de la personne. Nous proposons que les directives internationales qui s'appliquent à la lutte contre le VIH soit adaptées à celle contre la tuberculose. La lutte contre la tuberculose dans les prisons peut servir de modèle pour développer ces idées.

La tuberculosis es considerada como la principal causante de muerte entre los prisioneros del mundo, pero a pesar de ello, el control de esta enfermedad aún no se aborda con un enfoque de derechos humanos. Proponemos que las actuales directrices internacionales para el control del VIH sean adaptadas y se apliquen a la tuberculosis. El control de la tuberculosis en las prisiones proporciona un espacio para desarrollar estos conceptos.

Overwhelming Consumption in Prisons: Human Rights and Tuberculosis Control

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Tuberculosis (historically known as "consumption") is thought to be the single biggest cause of death among the world's prisoners. It is consuming prisoners, overwhelmingly.[1]

A human rights approach to tuberculosis control has, to date, been neglected. Applying such an approach would make global tuberculosis control a more realistic possibility, creating a better chance to "overwhelm consumption."

This article has two components. First, we will discuss the interaction of tuberculosis and human rights, using prisons as a platform to highlight the opportunities and threats faced in tuberculosis control. The discussion will move through six issues:

1. prisons and prisoners
2. tuberculosis
3. prisons and tuberculosis
4. prisons and human rights
5. tuberculosis and human rights
6. prisons, tuberculosis, and human rights

Second, based on this discussion, we propose a human rights–sensitive approach to tuberculosis control by adapting and applying existing guidelines for HIV/AIDS.

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Tuberculosis and Human Rights in Prisons

Prisons and Prisoners

Throughout the world, societies deprive individuals of their liberty in response to real or perceived harms. Such persons are held in a number of institutions, their names varying from country to country, and according to the stage of the judicial system these persons are passing through. These places of detention are called prisons, jails, correctional facilities, police stations, remand centers, detention centers for asylum seekers, penal colonies, prisoner-of-war camps, gulags, and secure hospitals, to name just a few. For clarity, we will refer to sites of incarceration as "prisons" and to persons deprived of liberty as "prisoners."

There are no accurate data on the number of persons in the world's prisons. Current estimates vary from 8,000,000 to 10,000,000 persons.[2] The number of persons passing through prisons in a given year is at least four to six times this number.

Prisoners are not representative of the general community. Many selective processes operate to transfer a citizen into a prisoner, and many of these factors influence the epidemiology of tuberculosis in prisons. Prisoners are predominantly male (90–95% throughout most prison systems of the world), are young (15–44 years old), and belong to minority groups (with resultant poorer socioeconomic status, education, and work prospects).[3] It is precisely these community subgroups who have a high risk of exposure to infection by *Mycobacterium tuberculosis*.

Vivien Stern has stated: "Although women make up more or less half the population of the world, they make up on average only one twentieth of the world's prison population. Prisons are occupied by the casualties of social policies, those who have not managed to get for themselves a position with income, employment, family security and social acceptance."[4]

Tuberculosis

Few diseases possess such sad interest for humanity as consumption . . . and in every age of medicine, the subject has formed a fertile field for inquiring as to its nature, its cause and its treatment. . . . [N]otwithstanding the many important facts which

in recent years have been brought to light, it must be admitted that our knowledge of this disease is still far from complete.
—Encyclopaedia Britannica, 9th edition, 1885

Tuberculosis is an infectious disease that typically occurs in two phases:

1. Infection with *Mycobacterium tuberculosis*, often in childhood. At this stage the individual is not infectious to others.
2. Progression to active disease. This occurs in 5–10% of infected individuals. While tuberculosis can affect any organ, it commonly causes destruction of the lung parenchyma. An individual with active pulmonary tuberculosis is infectious.

Tuberculosis transmission occurs by airborne spread of infectious droplets. The source of infection is usually a person with active tuberculosis of the lung who is coughing. Transmission generally occurs indoors. HIV infection is currently one of the strongest risk factors for the progression of tuberculosis infection to active, destructive, and infectious disease.[5]

In 1995 there were an estimated eight million new cases of tuberculosis and three million deaths from tuberculosis worldwide. These deaths comprise an estimated 25% of all avoidable adult deaths in developing countries.[6]

The aims of tuberculosis control programs in any setting are to minimize the spread of the organism *Mycobacterium tuberculosis* and to reduce illness and death. The World Health Organization (WHO) advocates a treatment model called Directly Observed Treatment, Short-course (DOTS), consisting of the following components:

- political commitment to control tuberculosis;
- diagnosis of high-risk patients by sputum smear microscopy;
- directly observed treatment (DOT) with standardized regimens for six to eight months;
- training of staff; and

- recording and reporting for case management and assessment of treatment outcomes.

While patients may be treated within a primary health care facility, DOTS has specific needs for program management, information systems, and drug supplies. In recent years several prison-based programs in Africa have reported case-series data on DOTS implementation.[7]

Tuberculosis and Prisons

In 1997, WHO and ICRC enunciated principles for tuberculosis control in prisons in what is referred to as the Baku

Baku Declaration

We, the participants at the Baku Tuberculosis in Prisons Meeting
Recognizing that tuberculosis has become a major health threat to prisoners, and
Observing that often-incurable, drug resistant forms of tuberculosis are increasing in prisons, and
Further observing that the spread of HIV within prisons increases the risk of death from tuberculosis, and
Noting that tuberculosis in prisons easily spreads into the community from infectious prisoners and infectious prison staff, and
Acknowledging that adequately funded and staffed prison health services are essential to address the problem of tuberculosis in prisons,
CALL UPON
Governments, through Ministries of Justice and Interior and State Security and Health, to work together toward providing prisoners with adequate health care, and the means to cure tuberculosis, and
Prison Health Services to implement DOTS (Directly Observed Treatment, Short-course), and
Ministries of Health to strengthen National Tuberculosis Programmes through the DOTS strategy
AND WARN
that if there is no response to our call for action, incurable tuberculosis will increase death among prisoners and their families, and prison staff and the community.
Baku, 9 July 1997
[*signed by the World Health Organization, the International Committee of the Red Cross, the national tuberculosis programs of Azerbaijan, Georgia, and Russia, the Ministry of Justice of Azerbaijan, the NTP of Azerbaijan, the Ministry of Health of Georgia, and the Ministries of the Interior of Georgia and Russia*]

Declaration (see box on previous page).

Prison settings present both risks and opportunities for tuberculosis control.[8] One necessary condition for an effective control program is a functional health service within the prison that is accessible to all prisoners, both those suspected of having tuberculosis and those known to have tuberculosis.

Prisons are a recognized setting for transmission of tuberculosis.[9] Prisons impose a risk for tuberculosis transmission independent of the predisposing risk factors among the prison population.[10] Overcrowding and poor ventilation are two factors that often coexist in prisons.[11]

Disease transmission in the prison environment is dependent on several factors: the number of prisoners with active (infectious) tuberculosis, the number of susceptible prisoners, the opportunity for exposure, the duration of exposure, and the intensity of exposure (related in turn to the number of organisms, viability of organisms, and ventilation).

Mortality rates for tuberculosis among prisoners are high. For example, in 1995 the International Committee of the Red Cross (ICRC) reported from Azerbaijan that tuberculosis accounted for 80% of all deaths in prison and that 24% of tuberculosis cases were fatal.[12] Such statistics are typical for Eastern Europe and provide a useful point of comparison for other regions in the world.

Within any particular country, there can be no adequate control of tuberculosis without control of the disease inside prisons. Prisons can be an important locus of tuberculosis transmission. Movements of individuals within a prison system, as well as between the community and the prison system, are so common as to make the prison walls irrelevant in terms of disease prevention. Tuberculosis infection contracted in the community can initiate an epidemic when brought into the prison, and the reverse route of transmission is equally possible.[13]

All countries are encouraged to report tuberculosis cases in prisons within their national data. But disease surveillance systems in prisons are at best rudimentary, and most of the data are so poor that reliable conclusions can rarely be drawn. It is therefore important that prison tuberculosis data be made distinguishable from data on cases within the general community.

Currently, data from ministries of justice worldwide are only rarely incorporated into health statistics, resulting in underestimates of the severity of the problem of tuberculosis both in prisons and in the general community. One independent report by the Public Health Research Institute estimated that there will be approximately 75,000 new cases of tuberculosis annually in the civilian population of Russia (150,000,000 people), while there will be 40,000 new cases among Russian prisoners (1,000,000 people). More than half the number of new cases in Russia will thus occur in prison.[14]

Within this environment of high rates of disease and weak systems for monitoring the epidemic, false reports of deaths from "tuberculosis" may also be used to conceal other serious human rights abuses, such as murder, torture, or deaths resulting from malnutrition.[15]

Because tuberculosis is a chronic disease that may take years to become overtly manifest, and because of the high turnover of prisoners, it can be difficult to detect that tuberculosis transmission has occurred.[16] Remand prisoners are often held in the most overcrowded conditions, and moved the most—between court and prison, and between the community and prison. These are ideal circumstances for transmission of tuberculosis. Not only do such conditions enhance transmission of tuberculosis, but they also make the detection of cases and their treatment more difficult. It is difficult to establish that transmission actually occurred inside prison or that a particular patient brought the disease into the prison. In order to demonstrate transmission, Mantoux tests would have to be performed upon entry or active screening would have to be in place. Currently, such measures are rarely carried out (although Maryland provides one exception in the U.S.). If a patient becomes smear positive, genetic fingerprinting should be done to establish whether the infectious agent did indeed come from another known case. Fingerprinting can only be done in reference laboratories that are expensive to establish and maintain, and thus the practice is sustainable only in industrialized countries. In any case, it is extremely important to prevent transmission before an epidemic can begin, since tuberculosis control is extremely difficult in the midst of an epidemic.[17]

Tuberculosis, HIV, and Illicit Drug Use. Prisons are a setting where HIV and tuberculosis meet.[18] In some countries 30–70% of prisoners with tuberculosis are also infected with HIV.[19] Because HIV infection accelerates the transition from the noninfectious phase of tuberculosis to the active, infectious phase, prisoners with both tuberculosis and HIV/AIDS may accelerate transmission of tuberculosis to other prisoners.[20]

Prisons are also an environment conducive to sexually acquired HIV infection. By providing single-person cells and condoms, custodial systems in resource-rich countries may be limiting opportunities for situational, coercive sexual encounters, but increased overcrowding in prisons may diminish the impact of such measures.[21] In addition, the prevalence of HIV seropositivity in prison entrants generally correlates with the HIV seroprevalence among injecting drug users in the area from which the prisoners come.[22] Because of the almost universal criminalization of injecting drugs, injecting drug users make up a large and increasing proportion of prisoners. Many drug users live on the fringes of society with little opportunity for regular work and income, have poor access to an adequate diet and health care, and may abuse both drugs and alcohol. This complex of factors leads to maximal chance of exposure to *Mycobacterium tuberculosis*, optimal conditions for infection to progress to infectious disease, and minimal opportunity for proper early diagnosis and treatment to the point of cure.[23]

Injecting drug use (IDU) is a risk factor for tuberculosis as well as for HIV.[24] This is critical to an understanding of the dynamics of transmission, as prisoners are at a higher risk than the general community for HIV and IDU, as well as for tuberculosis.[25] For many prisoners, these risks compound one another. For example, in New York from 1980 to 1988, 95% of prisoners with AIDS had been injecting drug users.[26]

Regardless of any imperative to link the results to a tuberculosis program, all testing for HIV should be done with the same high degree of confidentiality and with pre-and post-test counseling. The question of whether mandatory testing for HIV should form part of an effective program to control tuberculosis was raised in the United States in the early 1980s,

when there were outbreaks of tuberculosis in urban centers including New York City, Miami, and San Francisco within socially marginalized, urban populations among which HIV infection rates were high.[27] Bayer addressed the issue of HIV testing at the time by stating that "the resurgence of tuberculosis compels us to confront the question of whether the voluntary strategy for dealing with the HIV epidemic is compatible with the compulsory tradition of dealing with tuberculosis."[28] His conclusion that knowledge of patients' HIV status was not useful in determining whether or not they were infected with tuberculosis, and that there was no public heath justification for mandatory HIV screening, should guide us on how to deal with the control of these two epidemics.

Traditional public health provisions for tuberculosis screening and treatment have differed from those implemented for HIV control. Compulsory screening, case-reporting, contact investigation, and even quarantine and mandatory treatment had been the accepted rule for tuberculosis, which had become curable at a time when authoritarian practices were more acceptable, at least in European countries.

The dual epidemics of HIV and tuberculosis also raise issues of individual choice and confidentiality. During the first years of the HIV epidemic, before its association with tuberculosis, public health officials generally sought to preserve confidentiality regarding HIV testing, seeking to prevent at all costs any discriminatory practices towards those persons who would be found HIV positive. With the upsurge of tuberculosis, there is concern that these precautions may be subverted in the effort to control tuberculosis.[29]

Diagnosing and Treating Tuberculosis in Prison. Once a prisoner is suspected of having tuberculosis and has commenced the diagnostic process, that prisoner's movement (both within the prison and between prisons) should be minimized so as to reduce the chances of interruption in follow-up care as well as the number of potential susceptible contacts. The imperative for the prison health service is to finalize diagnostic procedures as efficiently as possible, with minimal restriction to the individual prisoner and to the routine of the prison itself.

Within the prison environment, even the diagnosis of

tuberculosis is a tradeable commodity. Prisoners may try to get on tuberculosis programs even if they do not actually have the disease, because of the perceived—and, in some cases, very real—benefits of being in the hospital. There have been cases of prisoners infected with tuberculosis selling their infected sputum to other prisoners who wanted to get on the program because of the special diet or the heated hospital environment, or else to obtain medicines that may be used as currency within the prison.[30] In countries that prolong sentences for prisoners who have not completed treatment when they are due to be released, there may exist a similar problem: prisoners may falsify sputum samples in order to be released from prison. (See below for further discussion.)

The international medical community has over 50 years of experience in treating tuberculosis. This experience has taught that cure can only be achieved if six to eight months of treatment is provided and adhered to. With less time than this, emerging drug resistance may convert a treatable condition into an unmanageable one. This simple fact leads to the conclusion that receiving careless or incomplete treatment is far worse for the individual and the community than receiving no treatment at all.

Disease transmission occurs only between the onset of symptoms and initiation of treatment. Diagnosis is the single most important event in the cycle of infection and transmission. Commencement of treatment rapidly renders the prisoner non-infectious.

Interruption of treatment or irregular medication may lead to the development of drug resistance, which impacts on both individual prisoners and their communities.[31] The release of a prisoner without orderly transfer to health services in the community, and subsequent interruption of treatment, is all too common. Due to the problem of recidivism, many released prisoners subsequently return to prison, where the problem of interrupted treatment will resurface.

Prisoners on treatment at the time of release should be transferred to the care of community tuberculosis control programs. It has been argued that public health authorities outside the prison systems in many countries cannot provide effective follow-up care for released prisoners with tuberculosis, and that the interest of public health in this situ-

ation requires some provision for confinement of such prisoners even once their sentences are completed.[32] Nevertheless, we would argue that human rights, being inalienable, cannot be sacrificed to compensate for weaknesses in the public health system. Prolongation of detention merely for the completion of treatment would constitute a violation of a prisoner's rights.

With the re-emergence of tuberculosis as a major health hazard, preemptive measures such as prolonging prisoners' sentences to complete anti-tuberculosis treatment could become widespread. Such measures, however, would almost certainly be counterproductive from a policy perspective. Prisoners who know that their effective stay in prison will be prolonged because of their illness may be expected go to great lengths, including the falsification of sputum samples, to be taken off a tuberculosis program.

Finally, within many countries, and by inference within their prisons, tuberculosis is often diagnosed incorrectly. Even in high-prevalence countries, there may be a substantial element of over-reporting of tuberculosis.[33] For too many ill individuals in developing countries, even if a sputum smear examination is negative (if attempted at all), doctors may prescribe a trial of anti-tuberculosis medication and admission to a tuberculosis ward while also notifying the national register. Some of these patients may not have tuberculosis at all, but some other intractable infectious disease, debilitating chronic disease, or carcinoma, which would therefore remain untreated, even as the unnecessary "care" provided for tuberculosis would actually increase their risk of contracting tuberculosis.

Drug Resistance. Reports of drug-resistant tuberculosis in prisons have come predominantly from the United States, the former Soviet Union, and Spain. In one outbreak in New York, 13 HIV-infected prisoners and one guard died from a single multi-drug-resistant strain.[34] Once drug resistance has developed, treatment results can be expected to be poor, and the death rate high.[35]

Non-response to first-line anti-tuberculosis treatment will, for most prisoners, seriously compromise the chances of getting cured, as second-line treatments are simply not

available. How these cases are handled by the prison system will vary from authority to authority, but they pose a dilemma when one considers public health and human rights issues. Under any circumstances, tuberculosis control after the emergence of treatment failures will be much more difficult and more expensive than prevention. Fully supervised treatment is the best preventive strategy.

The realization is growing that if drug-resistance rates are high, even fully supervised treatment will not improve the cure rates for tuberculosis. Standardized treatment with first-line drugs may then be counterproductive, as prisons become both amplifiers and propagators of a problem created within the larger community.

Screening for Tuberculosis. Available resources and national guidelines will dictate whether and when prisoners are screened for tuberculosis infection or disease: at each entry point to the prison system or only once sentenced; via periodic *ad hoc* contact tracing in response to cases; and/or on exit from the prison system. While such screening activities are important, treatment of active cases is even more so, given that active disease is infectious while tuberculosis infection alone is not. Therefore, the first concern of prison health authorities should be to provide effective treatment for active disease; only then should they begin to offer screening services. In terms of treatment priorities, the most important way to interrupt transmission remains the treatment of infectious pulmonary disease with DOTS. Treating simple infections in patients before they become infectious is less urgent. Additional screening should only be proposed when proper treatment procedures are in place.

In any circumstances, the highest priority is to detect and cure infectious cases. Screening efforts must be concentrated on prisoners whose symptoms indicate possible tuberculosis (i.e., those who have a prolonged cough, are coughing blood [haemoptysis], have night sweats, and have experienced weight loss). Screening symptomatic prisoners must be by sputum smear microscopy, as this gives the best measure of infectivity.

Authorities may be reluctant to initiate an investigation for tuberculosis or to commence treatment on unsentenced

prisoners because the duration of their incarceration is less predictable. While this may be acceptable for a prisoner merely infected with tuberculosis, it would be unacceptable for a prisoner with active pulmonary disease. If the prisoner is released after treatment is started, it is the responsibility of the prison health authorities to arrange an orderly transfer to the community with adequate follow-up and treatment.

Prisons and Human Rights

Human rights derive from the dignity of the individual and are universal. We argue that, because tuberculosis is easily diagnosed, treatable, and curable but may lead to death if neglected, contracting tuberculosis and not getting treatment because of poor prison conditions may be considered to be a violation of human rights.

The rules governing the treatment of prisoners are codified in a number of instruments:

- United Nations Standard Minimum Rules for the Treatment of Prisoners.[36]
- United Nations Body of Principles for the Protection of All Persons under Any Form of Detention or Imprisonment.[37]
- United Nations Basic Principles for the Treatment of Prisoners.[38]
- Council of Europe Recommendation Concerning the Ethical and Organizational Aspects of Health Care in Prison.[39]

The achievement of minimum levels of health care, shelter, and diet for every prisoner is a goal that should be pursued by every state. Where resources are limited, the focus should be on those in greatest need (in the case of tuberculosis, those with active disease) in a transparent manner. Public health and prison health officials face many dilemmas in delivering services that risk challenging, or even impinging on, the rights of prisoners. The poorer the country and the fewer the resources allocated to prison health, the more extreme may be these dilemmas.

One important factor in determining the resolution of such dilemmas is the priorities of the government ministry

responsible for providing health care to prisoners. Prison health services may be under the control of any one of a number of different ministries (e.g., Justice, Interior, Police, or Health). Whether the prison health service should be under the direct control of the Health Ministry or the custodial authority is a question that has generated much discussion.[40] International standards do not specifically stipulate which government ministry should be responsible for prison health care.[41] In resource-poor countries, where the custodial bureaucracy is often closely aligned to the military-police apparatus and their funds, an independent prison health service may not be achievable. Nevertheless, the Council of Europe, the only international body to have taken a position on this topic, has emphasized the importance for the prison health service, and particularly its medical staff, to have adequate resources and to enjoy professional independence. The Third Report of the European Committee for the Prevention of Torture and Inhuman or Degrading Treatment or Punishment reads in part:

> Article 71. The health-care staff in any prison is a staff at risk. Their duty to care for their patients (sick prisoners) may often enter into conflict with considerations of prison management and security. This can give rise to difficult ethical questions and choices. In order to guarantee their independence in health-care matters, the CPT considers it important that such personnel be aligned as closely as possible with the mainstream of health-care provision in the community at large.
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> Article 72. [T]he available resources [for medical services] should be managed by a [qualified medical authority], not by bodies responsible for security or administration.[42]

Health workers employed by the custodial authorities are at risk of developing divided loyalties, between the service that employs them and the patients (prisoners) entrusted to their care. Under these circumstances, the risk of having medical decisions overruled for "security reasons" is too great. Health workers must have the ability to report to and appeal to a superior medical authority in the event of conflicts between professional ethics and requirements imposed by the custodial authority.[43] If medical staff are not independent, ill prisoners may be exposed to a variety of abuses when the interests of the custodial institution are thought to run

counter to the interests of the patient. Custodial authorities tend to give health a low priority, allocating resources primarily towards "control and security" costs.[44] Health officials in a health ministry are more likely to understand the implications of failing to confront health problems inside prisons that will eventually spill over into the general population.[45] Independent medical services are the only way to provide advocacy for prisoner health issues within the custodial system.

Tuberculosis and Human Rights

In the final analysis, the fight against tuberculosis can be carried along two independent approaches, by preventing the spread of the bacilli through procedures of public health, and by increasing the resistance of man through a proper way of life.

—Rene J. Dubos, *The White Plague: Tuberculosis, Man, and Society*, 1987

Whereas extensive work has been done on HIV/AIDS and human rights, tuberculosis has not attracted much attention in the human rights literature, nor has the association between tuberculosis and human rights been examined in detail in the medical literature.[46] In the case of HIV/AIDS, much of the emphasis has been on the maintenance of privacy and patient confidentiality, both within the doctor-patient relationship and by the state.

Under human rights law, a state's treatment of the people within its borders is a subject of international concern. This principle may certainly be extrapolated to the issue of prisoners who do not receive adequate treatment for tuberculosis, particularly when the disease has been contracted because of unsatisfactory conditions in prisons. Tuberculosis respects neither prison walls nor national borders. Nevertheless, although states are beginning to accept international scrutiny on some human rights issues within the prison setting, they have not yet done so in the context of tuberculosis control. Still, the state does have a responsibility to ensure prevention and treatment for prisoners in its charge.

Resource-poor countries with high tuberculosis burdens face many problems that work against the provision of a comprehensive anti-tuberculosis program, including low levels of training for health care workers, provision of poor salaries

(or non-payment of salaries), chronic shortages of medications, and high levels of corruption.[47]

Prisons, Tuberculosis, and Human Rights

Because proper diagnosis and treatment of tuberculosis are life-saving, a tuberculosis control program should be an inseparable component of a prisoner's minimum rights. Prisoners have the right to health care at a level that meets community standards.[48] The appropriate term here is "equivalent care" rather than "equal care." Prisoners cannot be expected to receive the same care as the outside (free) population, as their very status will of necessity not allow for some treatments that may only be possible outside prison. "Equivalent" gives a truer idea of what should be required of a prison medical service. In any case, all diagnostic and treatment services for tuberculosis should be free of charge to the prisoner, regardless of the financial arrangements for health care in the community.

No incarcerated individual should bring tuberculosis into the prison; no prisoner should be exposed to tuberculosis while in prison; and no released prisoner should take tuberculosis from the prison environment back to the community. A properly implemented tuberculosis program should screen incoming prisoners, detect and treat all contagious cases, and make certain that treatment is completed, ultimately ensuring that no one takes the disease back into the community upon release.

There may well be cases where this approach creates problems for prisoners (e.g., preventing their transfer to another prison nearer to family if it lacks treatment facilities). These problems must be examined with regard to the interests of the individual prisoner, as well as the interests of other prisoners, staff, and the prisoner's own family. Prisoners' rights must be respected while taking public health considerations into account. Health personnel must be aware of the complexity of these issues.

The custodial authority must provide the facilities and the means to prevent transmission of tuberculosis from the prison to the community, from the community to the prison, and within the prison. Because tuberculosis is an infectious

disease, tuberculosis control programs in prisons are critical for not only the prison population (prisoners and staff) but also the general community.

A recognition of the linkage of human rights and health in the context of tuberculosis in the prison setting is found in the work of the Council of Europe's Committee for the Prevention of Torture (CPT).[49] CPT has made reference to the prevalence, prevention, and management of tuberculosis in a number of reports on prisons in a number of European countries, including Belgium, Bulgaria, Denmark, France, Iceland, Portugal, Slovakia, Slovenia, Spain, and Switzerland.[50]

Nongovernmental human rights organizations are increasingly identifying tuberculosis as an issue of human rights concern, focusing in particular on the obligation of governments to ensure that individuals do not catch tuberculosis in prison and the responsibility of prison authorities to ensure treatment for ill prisoners. Two recent Amnesty International reports have highlighted the issue of tuberculosis in prisons:

- Venezuela: the delegation found several advanced and untreated cases of tuberculosis among prisoners. At least one prisoner had died for lack of any medical care, and others were living in totally inadequate con ditions of imprisonment.[51]
- Kazakstan: the delegation noted that prisoners throughout the prison system suffer from exposure to diseases such as tuberculosis that go untreated.[52]

A recent survey by the Open Society Institute's Center on Crime, Communities and Culture in countries of the former Soviet Union also identified tuberculosis as a major emerging health issue.[53]

The squalid conditions of overcrowding, filth, and lack of ventilation and the high levels of sexual activity that prevail in many prisons of the world are directly conducive to the development of tuberculosis as a serious health issue. In addition, many of the prisoners held in custody come from precisely the socially deprived or marginal sectors of society where tuberculosis is already rampant. The case of prisons in

the former Soviet Union is a good example of how prisoners—mostly poor people—can be lodged in unsatisfactory conditions that easily lead to the spread of tuberculosis. These conditions were described by the United Nations Special Rapporteur on Torture during a visit to several prisons and remand centers in Russia in 1994: "[T]he conditions of detention in [two remand centers were] disgusting. . . . [T]he conditions are cruel, inhuman and degrading; they are torturous. . . . No State has the right to subject persons to these conditions, regardless of constraints on resources, rigidities in its legal system or the time required to develop new facilities."[54]

Unsanitary, overcrowded, "disgusting" conditions can be considered as ideal conditions—almost the equivalent of a petri dish—for the transmission of tuberculosis. If, in addition, prisoners are denied treatment, whether through negligence, inefficient prison medical services, or even lack of funds by the public authority responsible for their custody and well being, it can certainly be argued that this additional burden of tuberculosis constitutes "cruel and inhuman treatment." Catching tuberculosis is most certainly *not* a part of a prisoner's sentence. Unfortunately, the conditions in remand prisons, where detained persons should be considered innocent until proven guilty, are usually even worse than in prisons.

Under some circumstances, a diagnosis of tuberculosis may even be grounds for imprisonment of non-criminals. Public health legislation in many countries includes measures that allow for long-term detention of tuberculosis patients who do not comply with treatment. Some authorities (including those in New Zealand and in 34 states in the U.S.) impose various forms of detention and imprisonment on persons who are noncompliant with anti-tuberculosis treatment.[55]

The International Committee of the Red Cross (ICRC) has established tuberculosis treatment programs in collaboration with local authorities in prisons of the Southern Caucasus (Georgia, Armenia, and Azerbaijan), a region with extremely high rates of tuberculosis in prison.[56] These programs were started because tuberculosis was identified as the major health threat facing prisoners. The issue of multi-drug-resistant cases amongst the prison population has made this threat even greater.[57]

A Framework for Progress: The Humane Approach to Tuberculosis Control

In order to address the specific concerns raised above concerning tuberculosis in prisons, and in the belief that a well-managed program based on scientific principles and human rights standards is less susceptible to corruption, we propose the following list of core needs for humane tuberculosis control programs in prisons:

- Equivalence: standards of health care in prison should reflect or even anticipate the development of health services in the community.
- Independence: prison health personnel should be able to act freely as advocates for the health and welfare of prisoners.
- Management: prison officials should develop the many planning and health care delivery skills necessary to deliver DOT for six to eight months.
- Epidemiological "truth": good diagnostic and treatment services in prisons should ensure that cases are diagnosed and treated and that "non-cases" are not treated.

Having examined the complex problems of tuberculosis control in prisons, we will use the insights gained from this study to examine questions of governmental responsibility for tuberculosis control and human rights in the society at large. Prisons are, of course, part of the community; thus, at the level of government action, tuberculosis control in prisons must inevitably be linked to tuberculosis control in the broader community. We propose the following framework for tuberculosis control, adapted from the approach to HIV/AIDS in the Guidelines for Action that came out of the Second International Consultation on HIV/AIDS and Human Rights, jointly sponsored by the United Nations Office of the High Commissioner for Human Rights and the Joint United Nations Program on HIV/AIDS (UNAIDS).[58] The HIV/AIDS Guidelines provide a good model for tuberculosis control because they are the result of prior consultation, they have been accepted and used for three years, and they were designed for a disease that itself has an important impact on tuberculosis.

Institutional Responsibilities and Processes

National Framework. States should establish an effective national framework for their response to tuberculosis that ensures a coordinated, participatory, and accountable approach, integrating tuberculosis policy and program responsibilities across all branches of government.

Community Consultation. States should ensure, through political and financial support, that community consultation occurs in all phases of tuberculosis policy design, program implementation, and evaluation, and that community organizations are enabled to carry out their activities, including in the fields of ethics, law, and human rights.

Law Review, Reform, and Support Services Public Health Legislation. States should review and reform public health legislation to ensure that their laws adequately address the public health issues raised by tuberculosis, that their provisions applicable to casually transmitted diseases are not inappropriately applied to tuberculosis, and that they are consistent with international human rights obligations.

Criminal Laws and Correctional Systems. States should review and reform criminal laws and correctional systems to ensure that they are consistent with international human rights obligations and are not misused in the context of tuberculosis or targeted against vulnerable groups such as homeless persons or refugees. Imprisonment for noncompliance with anti-tuberculosis treatment is inconsistent with the principles stated here.

Antidiscrimination and Protective Laws. States should enact or strengthen antidiscrimination and other protective laws that:

- protect vulnerable groups, including persons suspected of having tuberculosis, patients with tuberculosis, and their families, from discrimination in both the public and private sectors.
- ensure privacy, confidentiality, and ethics in research involving human subjects; emphasize education; and

provide for speedy and effective administrative and civil remedies.

Regulation of Goods, Services, and Information. States should enact legislation to provide for the regulation of tuberculosis-related goods, services, and information, so as to ensure widespread availability of safe and effective medication at an affordable price, qualitative prevention measures and services, and adequate tuberculosis prevention and care information.

Legal Support Services. States should implement and support legal support services that will educate people affected by tuberculosis about their rights, provide legal services to enforce those rights, develop expertise on tuberculosis-related legal issues, and utilize means of protection such as ministries of justice, ombudspersons, health complaints units, and human rights commissions, in addition to the courts.

Promotion of a Supportive and Enabling Environment

Women, Children, and Vulnerable Groups. States should, in collaboration with and through the community, promote a supportive and enabling environment for women, children, and vulnerable groups by addressing underlying prejudices and inequalities through community dialogue, specially designed social and health services, and support for community groups.

Changing Discriminatory Attitudes through Education, Training, and the Media. States should promote the wide and ongoing distribution of creative education, training, and media programs explicitly designed to change attitudes of discrimination and stigmatization associated with tuberculosis to attitudes of understanding and acceptance.

Development of Public- and Private-Sector Standards and Mechanisms for Implementing These Standards. States should ensure that the government and the private sector develop codes of conduct regarding tuberculosis issues that translate human rights principles into codes of professional

responsibility and practice, with accompanying mechanisms to implement and enforce these codes.

State Monitoring and Enforcement of Human Rights. States should ensure monitoring and enforcement mechanisms to guarantee to persons suspected of having tuberculosis, patients with tuberculosis, their families, and their communities the following tuberculosis-related human rights: (1) that persons will be diagnosed accurately and guaranteed treatment to the point of cure, and (2) that transmission of tuberculosis will be minimized.

International Cooperation. States should cooperate through all relevant programs and agencies of the United Nations system, including WHO, to share knowledge and experience concerning the tuberculosis-related human rights issues outlined above, and should establish effective mechanisms to protect human rights in the context of tuberculosis at the international level.

Conclusion

People who are incarcerated are only temporarily separated from their respective communities. For many of us, they are our neighbors, our children, and our friends. Protecting the health of communities must include protecting the health of prison communities, and meeting this challenge is good public health policy.
—J. Gaiter and L. S. Doll, "Improving HIV/AIDS Prevention in Prisons Is Good Public Health Policy," 1996

It is ironic that society condemns transgressors to imprisonment because they are considered harmful. In the case of tuberculosis, transmission in prison may worsen a community health problem. This irony creates a public health imperative.

A human rights approach to tuberculosis control recognizes the need for governments to provide proper diagnosis and treatment in a transparent manner, including minimal protection against transmission. To fail in this task will open channels for oppression and unnecessary suffering for all—both prisoner and free citizen.

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