103 F.Supp.2d 316 (2000)

Dennis REYNOLDS, Plaintiff,

v.

G. GOORD, Commissioner, D.O.C.S.; Christopher C. Artuz, Supt., Green Haven Correctional Facility; Norman Selwin, Md, Faculty Health Service Director; Larry Zwilliger, Regional Health Service Administrator; Catherine Metzler, Rn II; and Don Stevens, Nurse Administrator, Defendants.

No. 98 Civ. 6722(DLC).

United States District Court, S.D. New York.

July 13, 2000.

317 *317 Daniel J. Beller, Lynn B. Bayard, Hillel C. Neuer, Jennifer Daskal, Eli Wald, Paul Weiss Rifkind Wharton & Garrison, New York, NY, for plaintiff.

Tiffany Foo, Jeffrey Horowitz, Rebecca Ann Durden, Assistant Attorneys General, New York, NY, for defendants.

318 *318 ***OPINION AND ORDER***

COTE, District Judge.

This case addresses the rationality of a policy of the New York State Department of Correctional Services ("DOCS") which places inmates who refuse to submit to a Mantoux skin test which is designed to detect whether the inmate is infected with the bacterium that causes tuberculosis ("TB") into a restrictive confinement known as Tuberculin Hold ("TB Hold") for one year. Dennis Reynolds ("Reynolds"), the plaintiff in this case, is a Rastafarian inmate at Green Haven Correctional Facility ("Green Haven"). He refused to submit to the skin test on May 12, 2000, asserting his First Amendment right to exercise his religion, and has moved for a preliminary injunction barring his placement in TB Hold pending trial. Following a hearing held this week, the motion is granted.

PROCEDURAL HISTORY

Plaintiff filed the present action with a complaint dated June 3, 1998, to challenge the legitimacy of DOCS' use of TB Hold. Because Reynolds has decided on several occasions to submit to the skin test rather than remain in TB Hold, he has not yet spent any prolonged period in TB Hold. Following the completion of discovery, on February 28, 2000, this Court issued an Opinion and Order, granting in part defendants' motion for summary judgment and appointing plaintiff counsel for his remaining First Amendment claim. *See Reynolds v. Goord,* 98 Civ. 6722, 2000 WL 235278 (S.D.N.Y. Mar.1, 2000) (DLC). The law firm of Paul, Weiss, Rifkind, Wharton & Garrison entered an appearance on plaintiff's behalf on March 16, 2000. At an April 14 conference, on consent of the parties, the plaintiff's pending motion for injunctive relief was deemed moot since Reynolds was not in TB Hold or, to counsel's knowledge, scheduled to have the skin test. A schedule was set to allow for the full development of the issues at stake in this litigation: discovery was to be completed by the end of October 2000, and a summary judgment motion fully submitted by January 12, 2001.

Nevertheless, Green Haven scheduled Reynolds for the skin test, known as a PPD test, on May 12, 2000, and when he refused the test, placed him in TB Hold. On May 12, 2000, the Court ordered that Reynolds be removed from TB Hold until a hearing could be conducted on Monday, May 15, 2000. At the May 15 hearing, Dr. Lester Wright ("Dr.Wright"), the Deputy Commissioner/Chief Medical Officer of DOCS and the author of the TB Hold policy, testified and was cross-examined. On the evening of May 15, 2000, DOCS agreed to allow the plaintiff to

remain in the prison's general population until July 14, so that the parties could prepare for and the Court could conduct a preliminary injunction hearing on July 10, 2000.

By Memorandum Opinion and Order dated June 22, 2000, the Court appointed Ronald Shansky, M.D. ("Dr.Shansky"), a leading expert in correctional medicine, to serve as its expert at the preliminary injunction hearing pursuant to Rule 706, Fed.R.Evid. *See* *Reynolds v. Goord,* 98 Civ. 6722, 2000 WL 825690 (S.D.N.Y. June 26, 2000). Shortly after such appointment, Dr. Shansky advised the Court of data he required to render an informed opinion. By Order dated June 26, the Court required DOCS to provide certain data regarding (1) each inmate who since 1994 has been diagnosed while a DOCS inmate as suffering from active TB, and (2) each inmate placed in TB Hold since May 1996. Communicable and Infectious Disease Coordinator Linda Klopf, who gathered the data, testified regarding the data on July 6, 2000.

Without objection by the parties, the direct testimony of all witnesses was presented according to this Court's customary practice, that is, by affidavit. The plaintiff submitted affidavits from Reynolds; Clarence Snead, an
319 inmate at Green Haven; and Thomas K.C. King, M.D., an expert in *319 the area of pulmonary illnesses, including tuberculosis. The defendants submitted affidavits from the following witnesses: Jeffrey Richards, the Plant Superintendent of Green Haven; Theodore Nielsen, a Correctional Officer at Green Haven; Catherine Metzler, R.N., a Registered Nurse who is responsible for ensuring compliance with DOCS' TB policies at Green Haven; its expert Lee B. Reichman, M.D., the Executive Director of the New Jersey Medical School National Tuberculosis Center; and Dr. Wright. Finally, on July 6, 2000, Dr. Shansky responded on the record to written questions posed by the Court on June 30, 2000.

At the hearing, which began on July 10, each of the witnesses who submitted an affidavit was cross-examined.[1] In addition, Dr. Shansky was examined by the parties and the Court. The hearing having now been held, the following constitute the Court's Findings of Fact and Conclusions of Law.

FINDINGS OF FACT

The Threat of TB

TB is a deadly disease caused by organisms of the mycobacterium tuberculosis complex, also known as tubercle bacilli. TB has plagued humanity since before recorded history and today is the leading infectious cause of death around the world. Globally, there are currently eight million cases of TB annually and two to three million deaths a year from the disease.

In the 1800s in the United States, TB (or "consumption" as it was called before the identification of the bacterium in 1882) accounted for as many as one-quarter of the deaths in urban areas. In the twentieth century, the development of medical treatment for the disease and the application of public health initiatives led to a steady decline in the incidence of the disease until the mid-1980s. At that point the incidence of TB began to increase. By 1992, there were 10.5 cases of TB identified per 100,000 persons, or 26,673 cases, in the United States, compared to 9.3 cases per 100,000 in 1985. In New York City, the incidence of active TB increased even more dramatically: by 1992, there were 52 cases per 100,000, a significant rise from the 22.4 per 100,000 in 1981. Public health professionals believe that a major factor in the resurgence of TB was the high frequency of transmission of TB within institutions such as hospitals, shelters and correctional facilities. Other contributing factors are believed to have been an increasing rate of homelessness and of human immunodeficiency virus ("HIV"). With public health initiatives, the decline in the incidence of TB resumed again in 1993, reaching an all time low in the United States of 6.4 per 100,000 in 1999, or 18,361 cases.

The incidence of TB is not spread evenly across this country. There are several patterns relevant to this litigation that are discernible from public health data. Five states, including New York, have over half of the new cases. TB is frequently present among immigrants. In 1998, forty-one percent of all TB patients were foreignborn.[2] TB is relatively common among the homeless and those who reside in correctional institutions and other congregate facilities such as long-term care facilities. These high risk environments account for nearly fifteen percent of new cases. Substance abuse is yet another characteristic shared by many who suffer from TB.

TB can be present in any organ of the body, but most commonly exists in the lungs or respiratory tract. TB exists in two stages: latent and active. An individual has latent TB when the individual has been infected with the TB
320 bacterium but does not have symptoms of the disease. Latent TB is not contagious, but without *320 preventive therapy persons infected with latent TB may develop the active disease.

Active pulmonary TB, which is referred to as TB in this opinion, is in some circumstances highly contagious. In general, its symptoms are a prolonged cough, chest pain, coughing up blood, fatigue, anorexia, weight loss, and persistent low-grade fever. It is most commonly spread when a person with TB in the respiratory tract coughs, sneezes, laughs, yells, or sings, thereby generating airborne particles called "droplet nuclei." The largest of these particles quickly settle out of the air, but the smaller particles remain suspended, often for several hours. When inhaled, the smaller particles can reach the alveoli of the lungs and lead to infection. The TB bacilli may then multiply. If they are transported to regional lymph nodes, they can enter the bloodstream and establish sites of infection throughout the body. Their most common site, however, is the upper portions of the lungs. Indeed, eighty-five percent of those with tuberculosis have pulmonary TB.[3]

The infectiousness of TB is directly related to the number of droplet nuclei containing tubercle bacilli that are expelled into the air. In general, persons suspected of having pulmonary TB are considered infectious if (1) they are coughing, or the laboratory analysis of their sputum smear results[4] are positive, and (2) they are not receiving drug therapy, have just started drug therapy, or are having a poor response to the drug therapy. In contrast, such persons are no longer considered to be infectious if they have (1) received adequate drug therapy for approximately three weeks, (2) a favorable clinical response to the therapy, and (3) three consecutive negative sputum smear results from sputum collected on different days.

Transmission of the disease usually requires close and prolonged exposure. Nonetheless, individuals who are malnourished, are generally in poor health, or whose immune systems are compromised ▯ such as persons infected with HIV or suffering from Acquired Immune Deficiency Syndrome ("AIDS") ▯ are at particular risk from any exposure. Persons with HIV are one hundred times more likely to develop active TB when infected than the average person; their risk of developing the disease after infection is estimated to be between eight to ten percent per year. HIV promotes the progression of latent TB to TB, and conversely, TB is the most common cause of death in persons infected with HIV.

On average, the investigation of a case of TB in the United States results in the identification of nine other individuals who are considered "close contacts." Of that number, approximately twenty to thirty percent are found to be infected and one percent have developed the disease. Since the prevalence of TB among close contacts is many times greater than the incidence among the general population in the United States, the identification of those exposed to TB is an important public health issue.

Rates of Infection and the Development of the Disease

Within two to ten weeks of becoming infected, an individual usually develops a specific immunity that prevents further multiplication and spread of the TB bacilli. Individuals who have a successful immune response still harbor live TB bacilli in the parts of the body seeded by the early dissemination of the organism, however, and have what is called a latent tuberculosis infection. As already noted, a latent infection causes no symptoms and is not contagious.

321 *321 Individuals with latent TB are capable of developing the disease at any time in their lives. The risk of disease is greatest, however, during the first two years after being infected. During this two year period, about five percent of infected persons develop TB. Although there is some variation in the statistics, it is generally understood that sixty percent of this risk falls into the first year after infection, and forty percent in the second. Another five percent of infected persons will develop TB at some later time in their lives. This risk is greatest among the elderly. It is believed that approximately ninety percent of individuals with latent TB will never develop the disease. As explained in a leading public health report on TB,

> the screening of high-risk populations for latent tuberculosis infection and the provision of treatment of latent infection have been recognized for more than a decade as being central to the goal of tuberculosis elimination.

Institute of Medicine, *Ending Neglect: The Elimination of Tuberculosis in the United States* 34 (Lawrence Geiter ed., 2000) (advance copy) ("*Ending Neglect*").

Because TB exists in many strains, persons who previously have been infected with latent TB may be at risk of reinfection even after they have received a course of drug treatment for the infection. This risk 🔲 which at present is not quantifiable 🔲 is most pronounced among those with compromised immune systems.

Testing for TB

The standard test for discovering a latent infection is the Mantoux TB skin test or PPD test. The Mantoux test is performed by giving an intradermal injection of purified protein derivative ("PPD") tuberculin into the forearm. If a person is infected with the TB bacterium, a temporary swelling or "induration" occurs. This test has remained essentially unchanged for over 60 years.

The PPD test is not perfect though. Some infected people will not have a positive reaction. This phenomenon is referred to as false negatives. False negatives occur most frequently when the infection is very recent (since a positive skin test develops two to ten weeks after infection) or when the immune system is compromised as it is in individuals with HIV. The defendants' expert estimates that the rate of false negatives among those whose immune system is intact approaches five percent and that for those with HIV it approaches thirty percent. As significantly, persons who are not infected may test positive. This most frequently occurs with persons infected with a related bacterium and those recently vaccinated with "BCG," a vaccine against TB used in many foreign countries. Moreover, the PPD test is not a good method of screening for TB itself, since between ten to twenty-five percent of those with TB have a negative reaction to the test. Finally, once a person has been infected with TB, even if the latent infection or the disease has been successfully treated, the PPD test result will remain positive. There is, therefore, no test to determine if an individual has been reinfected with TB. Because of these deficiencies, the PPD test is not recommended where the prevalence of infection is sufficiently low, as it is in the United States generally.

Because the reliability of the PPD test is also dependent on the criterion used to define a positive test, however, the reliability can be improved by progressively increasing the reaction size that separates positive from negative reactors. In 1999, the American Thoracic Society ("ATS") and the Centers for Disease Control and Prevention ("CDC") jointly recommended three cut-off levels for defining a positive reaction: ≥5mm for persons who are at highest risk for developing TB disease if they become infected, including HIV-positive individuals, individuals recently in contact with TB patients, individuals with changes on chest x-rays consistent with prior TB, and
322 patients with organ transplants and other immunosuppressed individuals; *322 ≥10mm for persons with an increased probability of recent infection or with other clinical conditions that increase the risk for TB, including recent immigrants from countries where the prevalence of TB is high, injection drug users, and residents and employees of high-risk congregate settings, including prisons and jails; and ≥15mm for those persons with no risk factors for TB. Within high risk populations, annual PPD testing allows identification of test results that "convert" from negative to positive within one year, permitting treatment during the first year of infection when the risk of developing the disease is at its greatest.[5]

There is an extremely high rate of error in reading the results of a PPD test. A recent study found that ninety-three percent of the medical professionals who examined an induration of 15mm misread it as less than 15mm, although only sixteen percent misread it to be less than 10mm.

As the defendants' expert readily admits, TB is easy to diagnose if one is looking for it. Pulmonary TB may almost always be found through a chest x-ray. Indeed, a chest x-ray has been described in a public health report prepared for correctional facilities as a "quick and effective way to identify" potentially infectious persons. U.S. Department of Health & Human Services, *Controlling TB in Correctional Facilities* 14 (1995) ("*Guide*"). While a

chest x-ray may suggest that a person has TB, however, it is not sufficient to diagnose TB. On the other hand, it is often used to rule out the possibility of pulmonary TB.

TB may be diagnosed based on clinical signs and symptoms alone. The "gold standard" for the diagnosis of the disease, however, is isolation of the tubercle bacillus in a culture of a patient's sputum. In the United States, about eighty percent of reported cases of tuberculosis are confirmed by a positive sputum culture. Since this figure includes extrapulmonary tuberculosis, a culture is even more reliable in diagnosing pulmonary tuberculosis. A positive culture, however, generally takes at least two weeks.

In contrast, a microscopic examination of a "smear" of sputa is rapid and technically simple.[6] This examination, whose results can be read by a laboratory within twenty-four hours of receipt of a specimen, permits only a presumptive diagnosis of TB, however, since the reading also reflects mycobacteria other than tuberculosis[7] and since many TB patients, especially if recently infected, have negative readings. Since the smear test measures, in essence, the quantity of bacilli in the lungs, a positive result may be used to identify persons who are infectious. The microscopic analysis of a sputum smear is estimated to identify about thirty-five percent of the individuals with tuberculosis.

Treatment for Latent TB and TB

There are problems associated with the drugs used to treat latent TB. A nine month course of treatment with the most commonly used drug to treat the infection, isoniazid or "INH," is estimated to be about seventy-five percent effective in preventing the development of TB in persons with latent TB.[8] This figure accounts for those who cannot take the drug because of intolerance to the drug and for those who do not adhere to the regimen. When
323 analysis *323 is restricted to persons who are complaint with the medication, one study indicates ninety percent effectiveness. Since INH can have an adverse impact on the liver, particularly for those over thirty-five, persons taking INH must be monitored carefully for symptoms of hepatitis.[9]

Generally, the drugs used to treat the disease itself are extremely effective. Treatment usually entails the administration of multiple drugs for a period of six to twenty-four months. An adverse reaction to the drugs used to treat TB is relatively rare, but may be severe.

Drug-Resistant TB

In the early 1990s, resistance to the drugs used to treat TB became a significant problem. By the mid-1990s, twelve percent of those within the United States newly diagnosed with TB and previously untreated were resistant to at least one of the drugs customarily used to treat TB. The number rose to twenty-three percent for those who had been previously treated for TB. The patients at an increased risk for drug resistance include those who have a history of treatment with TB medications, particularly with a history of nonadherence to a treatment regimen; those in contact with others known to have drug-resistant TB; aliens from areas where the prevalence of drug resistant TB is high, including parts of Asia, Africa, and Latin America; residents of those areas of this country where the prevalence of drug-resistant TB is four percent or higher; and those whose sputum smears or cultures remain positive after two months of therapy with customary TB medications. Since those with drug-resistant TB, even when treated appropriately, may remain infectious for several weeks or months, they require close monitoring and isolation until infectiousness is ruled out.

TB in Prisons

Prison populations are particularly vulnerable to TB. The majority of inmates of correctional facilities have the demographic characteristics that put them at a high risk of being infected with TB. In addition, TB can spread with ease within a prison unless adequate precautions are taken. Studies have shown a correlation between a positive PPD test result and the length of time a person spends in prison, suggesting that transmission of the infection may well have occurred within correctional facilities. Consequently, a draft report by the Institute of

Medicine Committee on the Elimination of Tuberculosis in the United States entitled *Ending Neglect*[10] recommended this year that the PPD test be required of all inmates of correctional institutions and, when appropriate, that infected inmates be required to complete an appropriate course of treatment. *Ending Neglect, supra,* at 69. In the view of the Institute of Medicine,

> without an effective vaccine for the prevention of pulmonary tuberculosis, the most effective means of preventing new cases is to take advantage of the relatively long period between infection and the development of active disease by treating individuals with latent infection to reduce the risk of disease.

Id. As this public health panel recognized, "no program of mandatory screening for latent infection could be justified unless it were linked to a program of treatment of latent infection." *Id.* at 74.

Public health professionals endorse mandatory TB testing and treatment of prisoners for other reasons as well.
324 Careful monitoring of TB among prisoners provides *324 an early warning about a rise in the incidence of the disease within the general public, and effective treatment of the disease among prisoners is easier to achieve compared to the public since their compliance with a treatment program can be monitored. At least one state with a significant prison population, Texas, nonetheless exempts inmates and staff from PPD testing if it "conflicts with the tenets of an organized religion to which they belong." 25 Tex. Admin. Code § 97.171 (2000).

Health & Human Services Guide: Controlling TB in Correctional Facilities

In 1995, the United States Department of Health & Human Services published a comprehensive guide to assist correctional officials in controlling TB entitled "Controlling TB in Correctional Facilities." *See Guide, supra.*[11] The *Guide's* recommendations include adoption of measures to identify staff and long-term[12] inmates who are infected with TB, and to evaluate infected persons for preventive therapy. While it identifies the PPD test as the preferred method of screening for infection, it recommends exempting those who have a documented positive skin test result, who have a documented history of TB, or who report a history of a severe necrotic reaction to tuberculin. It recommends that persons exempted from the PPD test receive a chest x-ray unless there is proof that they have already completed a course of preventive TB therapy or treatment. *See id.* at 15.

For those who have a positive reaction to the PPD test and no symptoms of TB, the *Guide* recommends a chest x-ray. *See id.* If those with a positive reaction to the skin test are members of a high-risk group, then the *Guide* recommends that they start a course of preventive therapy unless it is medically contraindicated. High risk groups include those with HIV or at risk for HIV (including persons who have injected drugs), those in close contact with someone with TB, those with a positive chest x-ray but without a history of adequate treatment, and those whose reaction to the PPD test went from negative to positive within the past two years. In the absence of high risk factors, the Guide only recommends evaluation for preventive drug therapy if the inmate is younger than thirty-five. The demarcation by age is due to the increased risk to the liver from treatment with INH.

When a person who is likely to be infected refuses to take INH or is unable to do so, the *Guide* recommends that the person be counseled to seek prompt medical attention if TB symptoms develop. It recommends against routine chest x-rays, however, in the absence of symptoms. According to the *Guide,* chest x-rays should be given only if symptoms, particularly a persistent cough, develop. *Id.* at 44.

In addition, the *Guide* recommends that all those who test negative when given the PPD test be given a second test one to three weeks later. This recommendation is based on the observation that a person infected with TB many years earlier may not have a positive reaction to an initial PPD skin test, but that the PPD test may stimulate their ability to react to a later PPD test. This "boosted" reaction may be misinterpreted as a new infection. To avoid this misinterpretation, the *Guide* recommends that the second test be administered promptly. *Id.* at 16. If there is a positive reaction to the second test, it reflects an infection sometime in the past. If there is a
325 negative reaction to the second test, then a positive reaction to any *325 subsequent test likely represents a new infection. *Id.*

The *Guide* further recommends annual PPD testing of inmates and staff who have had negative skin tests. If a person has had a positive skin test result and has not completed a course of preventive therapy, then the *Guide* recommends that the person be screened each year for symptoms. It does not recommend annual chest x-rays for those without symptoms. *Id.* at 21-22.

When a person in the prison population appears to be infectious, the *Guide* recommends that "close contacts" be skin tested unless they have a documented history of a positive PPD test result. Close contacts are defined as "persons who sleep, live, or work with an infectious person or who share air with an infectious person through a common ventilation system." *Id.* at 35. Depending on the ventilation in a facility, contacts may include cell mates, inmates and staff on a tier or unit, or even all inmates and staff in a building if the person is very infectious. *Id.* at 35.

Federal Bureau of Prisons

On February 12, 1997, the Federal Bureau of Prisons issued a revised infectious disease management directive to update its procedures for screening for TB. It requires TB testing for all inmates.[13] Federal Bureau of Prisons, Directive PS 6190.02 Infectious Disease Management (February 12, 1997) ("*Directive*"). The *Directive* also requires all federal correctional facilities to comply with the CDC guidelines for control of TB in correctional facilities. *Id.* ¶ 18.

The *Directive* specifically requires TB screening for all newly admitted inmates, preferably through the PPD test, or in the alternative, through a chest x-ray. If the inmate refuses to submit to both procedures, mandatory testing is required and the inmate will be "subject to an incident report." The *Directive* states in relevant part:

> All newly committed inmates shall receive TB screening by PPD (mantoux method) or chest x-ray. The PPD shall be the primary screening method unless this diagnostic test is contraindicated; then a chest x-ray shall be obtained. If an inmate refuses both the PPD test and a chest x-ray, then, the institution shall involuntarily test the inmate.... The [Clinical Director] shall educate and counsel any inmate prior to the involuntary use of any procedure.... *Any inmate who refuses clinically indicated diagnostic procedures and evaluations for infectious and communicable diseases shall be subject to an incident report* for failure to follow an order; involuntary testing subsequently may be performed in accordance [with this Directive].

Id. ¶ 10 (emphasis supplied). The *Directive* also provides for the isolation of any inmate believed to be infectious. According to the *Directive,*

> Any inmate who refuses clinically indicated diagnostic procedures and evaluations for infectious and communicable diseases shall be subject to isolation or quarantine from the general population until such time as [the inmate] is assessed to be non-communicable or the attending physician determines the inmate poses no health threat if returned to the general population.... If isolation is not practicable, an inmate who refuses to comply with or adhere to the diagnostic process or evaluation shall be involuntarily evaluated or tested.

Id.

The *Directive* instructs facilities to treat any person with clinical indications of TB as if the person is infectious until it is confirmed that there is no active disease or the person is no longer infectious. *Id.* ¶ 18c(11). Only those
326 inmates who are infectious, or are presumed to be, are restricted *326 in either "duty or housing assignments." *Id.* ¶ 14b.

New York State's Prison System

Throughout the 1990s, approximately twenty-five percent of DOCS' incoming inmates have been infected with TB. The prevalence of HIV among inmates entering DOCS further compounds the problem of TB control. In

1996, for example, approximately eight percent of the adult males entering DOCS' facilities were infected with HIV. Today, there are an estimated 7,000 HIV-infected inmates in DOCS' custody, of whom about 2,000 are estimated to have latent TB. Of the remaining 5,000, thirty percent or 1,500 can be expected to have a false negative result when given the PPD test.

There was a serious medical crisis in DOCS approximately ten years ago due to an outbreak of TB. The incidence of TB among DOCS' inmates rose 4.9 times from a rate of thirty-eight in 100,000 in 1981, to 225 in 100,000 by 1991. Moreover, in September 1990, the presence of a multi-drug resistant ("MDR") strain of TB within the prison system was confirmed. Around that time, twelve inmates and a Corrections Officer with compromised immune systems died of TB. Through the application of DOCS' policies addressed to this problem for instance, DOCS became the first state corrections system to require PPD testing for all inmates and staff the incidence of TB in New York State prisons has declined dramatically.[14] By 1993, the incidence of TB in the New York correctional system was 196 per 100,000;[15] by 1995, it was 124 cases per 100,000. By 1996, the incidence of TB had decreased from 1991 by sixty-six percent. Cases in which there was a confirmation of TB through a culture test reflected an even greater decline: a decline of eighty percent. The decline continued. The incidence of TB in 1999 was thirty-seven per 100,000. In 1999, there were only twenty-seven cases of TB and no cases of MDR TB among DOCS' inmates. Of these twenty-seven, eight had been diagnosed with TB by the time they entered DOCS and nineteen were diagnosed by DOCS.

Not only did DOCS succeed in reducing significantly the number of inmates who contracted TB, it also succeeded in identifying more quickly the inmates who had developed the disease. Consequently, by the mid-1990s, only a handful of those with the disease were ever infectious. For instance, in 1991, eighty-six of the 102 inmates diagnosed with the disease had positive sputum smears. In 1994, sixteen of the seventy inmates diagnosed with the disease had positive sputum smears. By 1996, only six of the thirty-five inmates diagnosed by DOCS as suffering from TB had such test results.

There remains a significant risk of undetected infection within the DOCS inmate population, however, even assuming complete compliance with the PPD testing program. (1) Currently, about 55,000 PPD tests given annually by DOCS result in negative readings. Five percent or 2,750 of these negative test results are statistically expected to be false negatives, assuming that all of these inmates are immunocompetent. (2) Over 16,000 inmates are not part of the annual testing program since they are known to be infected and have a history of a positive PPD result. A significant number of these "PPD-positive" inmates are at risk of developing the disease since they have never been treated effectively for their infection, or if treated are at risk of reinfection. This risk of reinfection is particularly great for HIV positive inmates. (3) Turning to the HIV-infected population, DOCS is only
327 aware of the HIV status of those who consent to testing or who voluntarily disclose their *327 status. As noted, DOCS estimates today that it has 7,000 HIV-infected inmates. (The most recent actual data DOCS has about these consensual disclosures is for 1996.) DOCS has no data reflecting how many of those known to be HIV positive have been treated for either TB infection or for the disease. It also has no data on how many have undergone PPD testing at DOCS, although it estimates that 2,000 have had positive PPD test results. Given the susceptibility of this population to TB infection and the disease, a significant number of those with positive PPD test results are at risk of developing the disease. Even of those who have received treatment for TB infection or the disease, the risk of reinfection is substantial. (4) Of the remaining 5,000 HIV-infected inmates, thirty percent or 1,500 can be expected to have a false negative result when given the PPD test. As we now know, anergy testing which was once used to sort out which individuals with HIV were still responsive to the PPD test is no longer considered reliable.[16] As a result, conservatively, over 20,000 of the 70,000 plus DOCS inmates are infected with TB.

To the extent DOCS succeeds in diagnosing and treating TB among inmates, there is a significant public health benefit to the general population as well. There are documented cases of TB spreading from released prisoners into the communities to which they return.[17] DOCS releases almost 30,000 individuals back into their communities each year.

DOCS' TB Program prior to May 1996[18]

In 1991, DOCS introduced a comprehensive TB control program, described in DOCS Health Services Policy § 1.18. This policy has been revised on several occasions since 1991: April 9, 1992; November 15, 1993; February 1, 1995; October 11, 1995; and May 20, 1996. Prior to May 1996, Policy § 1.18 provided that any inmate who refused PPD testing, and did not have a physician's written documentation of prior skin test reactivity or TB disease, must, following counseling about the importance of the test, be placed in "medical keeplock status." Prior to October 11, 1995, an inmate on medical keeplock status was required to remain in his cell "at all times except for one shower per week." Following a federal court decision, however, the Policy was modified on October 11, 1995, to provide that "[i]nmates in medical keeplock status must remain in their cell at all times except for one hour of recreation per day and three showers per week." Such confinement was potentially indefinite.

Although not reflected in Policy § 1.18, a December 12, 1991 memorandum from DOCS' Deputy Commissioner
328 Glenn S. Goord and Deputy Commissioner and Chief Medical Officer Dr. Robert Greifinger *328 allowed the superintendents of DOCS' facilities to exempt from medical keeplock those inmates who refused the PPD test on religious grounds:

> Inmates who refuse to take the test for religious reasons *may* be permitted to get a chest x-ray in lieu of the current testing procedures. This alternative method of testing must be requested via electronic mail to Dr. Greifinger. In the e-mail, you must indicate the specific circumstances, i.e., which religious reason, to justify the chest x-ray.

(Emphasis supplied).

Although inmates who refused the PPD test were placed in medical keeplock, inmates who tested positive on a PPD test, whether or not they accepted treatment, were left in the general population. This apparent contradiction in the treatment of "PPD refusers" and those with a positive PPD test result did not prevent DOCS from succeeding in controlling the TB outbreak by as early as 1994. Indeed, its success is regarded by medical and public health experts as one of the great public health success stories of the twentieth century. The defendants' expert testified that the presence of inmates with positive PPD test results in the general population, even when they were not taking INH or any other drug treatment for their infection, was "safe" since all such inmates were counseled about the benefits of taking INH and many did agree to take it. Nonetheless, it appears that over 6,000 inmates who were PPD positive but who did not take drug treatment remained in the general population during the period 1991 to 1995. An additional 500 inmates who had been earmarked for drug treatment for TB did not even begin to receive the treatment.

The Jolly Decision

In 1992, Paul Jolly, a Rastafarian inmate who had been confined to medical keeplock on the basis of his religious refusal to submit to PPD testing, challenged the constitutionality of DOCS' TB policy. *Jolly v. Coughlin,* 894 F.Supp. 734 (S.D.N.Y.1995), *aff'd,* 76 F.3d 468 (2d Cir.1996). The Second Circuit affirmed the decision of the Honorable John G. Koeltl granting Jolly's motion for a preliminary injunction removing him from medical keeplock on the ground that, *inter alia,* the conditions of Jolly's more than three year confinement in medical keeplock violated the Eighth Amendment.[19] The District Court decision was rendered on August 14, 1995; the Second Circuit decision on February 7, 1996.

The Circuit noted that Jolly was not challenging the PPD screening program itself or even the medical keeplock policy for those refusing the PPD test on non-religious grounds. The Circuit rejected DOCS' argument that medical keeplock for religious "refusers" served a deterrent purpose, since only twenty-five of 60,000 inmates were then refusing the PPD test on any ground. The Circuit observed that Jolly posed no greater health risk to the prison population than those who had tested positive when given the PPD test, but who were allowed into the

general population without taking any treatment, and that only those who developed the disease were actually contagious.

DOCS' Current TB Policy

Dr. Wright, DOCS' Chief Medical Officer since July 1995, was responsible for developing DOCS' current TB
329 policy, which has been in place since May 1996.[20] *329 As described in that policy, there are "four general tasks" in DOCS' system of TB control: prevention, detection, containment, and treatment. DOCS Health Services Policy § 1.18(II)(A) ("Policy § 1.18").

Under the testing protocol currently in place, all inmates who are not excused from the PPD test are screened for TB upon admission to DOCS and annually thereafter through the PPD test:

> All inmates will be screened for the presence of tuberculin reactivity upon entry into DOCS custody and at least annually thereafter. Initial screening will consist of a[] PPD and a screening chest x-ray at the Reception facility. At the first facility after reception, inmates who are HIV positive or have risk factors for HIV will be required to have anergy testing. This will be required annually as well. Further testing may be indicated by contact with a known case of tuberculosis.

Policy § 1.18(IV)(A)(1). Inmates who have "a physician's written documentation" of a prior positive test result or of having had TB are excused from the PPD testing program.[21] Policy § 1.18 IV(A)(3). Those inmates who have been vaccinated with BCG are not exempted from the PPD testing program. Policy § 1.18(IV)(A)(10). Although known tuberculin skin test reactors need not undergo either repeated testing or annual chest x-rays, the Policy provides that they should be counseled to report promptly any symptoms of TB to the health unit. Policy § 1.18 IV (A)(14).

All inmates with a positive PPD test result are screened for symptoms of active TB. Policy § 1.18(IV)(B)(2). A reaction of ≥5mm is considered positive. Policy § 1.18(IV)(A)(7). The medical procedures described in Policy § 1.18 for determining whether the infection has progressed to TB are a chest x-ray, sputum examinations, and a physical examination. While symptoms of tuberculosis are described in the Policy to include a cough, coughing up blood, fever, chills, night sweats, and weight loss, the Policy also notes that patients with TB may have "only one (or rarely none)" of these symptoms. Policy § 1.18(I)(D). If an x-ray or physical examination reveals evidence of contagious TB, the inmate is placed in respiratory isolation until proven non-contagious through sputum testing. Policy § 1.18(V)(A)(5).

DOCS prescribes drug therapy with INH to inmates who test positive for latent TB. Although INH is the "drug of choice" for all inmates, the length of the course of treatment depends on known or suspected HIV status: six months in patients without known HIV infection or risk factors for HIV infection; twelve months otherwise. Policy § 1.18 VI(B)(4)(a). The Policy provides that all inmates undergoing INH therapy should be periodically asked about symptoms of

> hepatic dysfunction (e.g., nausea, vomiting, abdominal pain, jaundice, biliuria, alcoholic stools) and observed for the presence or absence of jaundice. INH must be immediately stopped if these symptoms or signs appear.

Policy § 1.18 VI(B)(5)(a).

The Policy provides that inmates who refuse to take INH should be counseled about the importance of this treatment. Policy § 1.18(IV)(A)(4)(b). If the inmate has HIV or is at risk of having HIV, the inmate is placed in
330 respiratory isolation *330 until the inmate agrees to take the drug. Without these factors, the inmate is placed in TB Hold.[22] Policy § 1.18(IV)(A)(4)(b). As reflected in Policy § 1.18, INH therapy may be contraindicated for individuals such as the plaintiff who are over the age of thirty-five. Policy § 1.18 VI(B)(3)(b). According to the Policy, "[t]hese patients may safely receive the benefit of preventive therapy, but should have periodic chemical assessment of liver function." Policy § 1.18 VI(B)(3)(b).

Under the Policy, all inmates who DOCS concludes are at risk of contracting TB ▯ either because they are required but refuse to take the PPD test, they have a positive PPD test result and refuse or are unable to take INH, or they have a positive PPD test result and refuse a chest x-ray ▯ are removed, at least to some extent, from the prison's general population. The degree of isolation depends on the risk of developing TB. Inmates who either are HIV positive or are at high risk for having contracted HIV are placed in "respiratory protective status" while inmates without these risk factors are placed in TB Hold. Those inmates in TB Hold who consent to take INH are released into the general population.[23] Policy § 1.18 IV(A)(4)(b).

Because "[a]nyone who shared breathing air with a known case of active disease is at risk for tuberculosis infection," Policy § 1.18 also sets forth a system for evaluating persons exposed to inmates with TB prior to the time the inmate was placed in respiratory isolation. Policy § 1.18(V)(B)(2)(a). Inmates, staff, visitors and any other possible contacts must be considered for evaluation; "the investigation will begin with close contacts and will be extended in stages to progressively lower-risk groups until the rate of skin test conversion[24] in a tested group is less than 1%." Policy § 1.18(V)(B)(2)(e). Although PPD and anergy testing during a "contact" investigation is mandatory for inmates, staff may refuse such testing.[25] Policy § 1.18(V)(B)(2)(h). In a June 2, 1997 affidavit submitted in other litigation, Dr. Wright explained the exclusion of staff members from mandatory contact trace testing in the following terms:

> The exception for staff members was made at the request of the Counsel 82 Correctional Officers' union. DOCS agreed to it for several reasons: first, staff may not work at the prison unless they are regularly screened (and will be barred from the facilities if they refuse PPD testing); DOCS therefore knows that all employees have no objection to taking the test, and will and do take it when requested by facility medical staff. Second, employees also have the option of pursuing testing and treatment with health care providers outside the prison system; DOCS does not punish employees for doing so. Third, it is assumed that employees will act responsibly, and, if they do not act responsibly in this or any other context, they may be disciplined, discharged, barred from the workplace, or even sued by inmates or by others harmed by them. By contrast no equivalent incentives are available with regard to inmates.

331 *331 (internal citations omitted). The defendants' expert, however, strongly condemned this exception for staff.

TB Hold

TB Hold is unique to DOCS. No other correctional system in the United States has a similar program.

It is the intent of Dr. Wright that inmates in TB Hold be essentially isolated in their own cell. While respiratory isolation, infirmary housing, or placement in special housing units are not required for TB Hold, under the terms of the Policy inmates on TB Hold must remain in their cell at all times except for one hour of recreation per day and three showers per week. Policy § 1.18(IV)(A)(4)(c) & (d). Legal visits are the only visits permitted to inmates on TB Hold status.[26] Policy § 1.18(IV)(A)(4)(f). Per Policy § 1.18, inmates on TB Hold receive a monthly medical history, physical exam, weight check and a chest x-ray every six months. An inmate who exhibits no symptoms of TB and has three negative chest x-rays is released from TB Hold after one year. Policy § 1.18(IV)(A)(4)(b)(i). The Policy instructs that inmates who have initially refused the PPD test be offered TB testing daily for one week, weekly for one month, and monthly thereafter until the inmate accepts the testing. Inmates can agree to testing at any time. Policy § 1.18(IV)(A)(4)(b)(ii).

Although not explained in Policy § 1.18 itself, DOCS represents that an inmate will not be placed on TB Hold for more than one year unless the inmate refuses to comply with the TB Hold policy (i.e., refuses x-rays or physical examinations), exits the DOCS system and later returns, or is part of a contact trace. Dr. Wright designed TB Hold to last one year because

> it is during this first year following the refusal to take the PPD test that prison inmates run the greatest risk of developing active contagious TB disease and, thereby, increase the chance of exposing others in the prison population and staff to TB.

Any heightened risk of developing TB would only be present, however, if the inmate had actually just been infected with TB. Moreover, in defense of the version of Policy § 1.18 struck down in *Jolly* — a policy that allowed inmates with latent TB to remain in the general population — Dr. Wright testified that there was no need to isolate inmates with latent TB since they "cannot infect others."

DOCS' Experience with Policy § 1.18

While DOCS' record in controlling TB among inmates in the years following 1991 has been impressive, there is little evidence that a principal innovation of Policy § 1.18 — the use of TB Hold for those who refuse to submit to a PPD test for any reason, including religious grounds — has played any role in its success. No inmate on TB Hold has ever been diagnosed as suffering from TB. DOCS keeps no data of the length of time inmates remain on TB Hold. Such information is kept in only one place: an individual inmate's medical file. Similarly, DOCS has no summary data reflecting the number of inmates placed on TB Hold for their refusal to submit to the PPD test, as opposed to some other reason, much less summary data regarding the number who have refused on religious grounds. Counsel for DOCS has represented that forty-four inmates have already been placed on TB Hold this year, but was not able to confirm this fact at the hearing.

The absence of this kind of information, which could be useful in monitoring the necessity for and effectiveness of TB Hold, affects other portions of DOCS' TB policies as well. For example, DOCS does not compile data to track
332 its overall experience with (1) INH (or what it terms "directly *332 observed preventative therapy"[27]); (2) PPD tests (except for computing the percentage of those tests that were positive and that have converted from negative to positive); or even (3) those inmates who are suspected of having or who develop TB. Consequently, DOCS does not know such vital information as how many of its inmates with TB also have HIV or AIDS, or how many of those who have tested positive on a PPD test have thereafter been given INH, or how many inmates infected with HIV have been given INH, or how many who have been given INH nonetheless develop TB. DOCS does, however, maintain a detailed individual record on each inmate with a suspected and confirmed case of TB and also requires quarterly reports from infectious disease control staff to confirm that they have appropriately counseled the inmates on TB Hold.

From the data gathered by DOCS in response to the request from Dr. Shansky for specific information about the inmates who have been diagnosed by DOCS with TB between 1994 and 1999,[28] the following observations can be made.

1. The number of newly diagnosed TB cases appears to have leveled off since 1997, at just under twenty cases per year in an inmate population of approximately 70,000.[29]

2. Approximately one-quarter of those who are diagnosed with TB were never given a PPD test on entry into DOCS.

3. Of those who were diagnosed with TB during the period 1997 to 1999, almost one-half had a positive PPD test on entry into DOCS.

4. Approximately one-third of those inmates who were diagnosed with TB during the period 1997 to 1999, but who had had a negative PPD test on admission, were not given annual PPD tests (measured as tests given within 16 months of each other) prior to the diagnosis.

5. Approximately two-thirds of those who were diagnosed with TB after having had a positive PPD test result from a test administered by DOCS were not given drug therapy, such as INH, after the test but before the diagnosis.

6. Conversely, approximately one-third of those who had a positive PPD test result upon admission to DOCS and were thereafter given drug treatment by DOCS for their TB infection nonetheless developed the disease.

7. On average, over two years elapse between a positive PPD test result and a diagnosis that the inmate has TB.

333 *333 The risk that inmates suffering from HIV will develop TB without any useful early warning from a PPD test is amply illustrated by the sole example DOCS provided of the file it creates for each individual inmate who has been diagnosed with TB after entry into DOCS 99 the TB Registry. This inmate entered DOCS in May 1997, reporting that he had tested positive on a PPD test in 1991, and had received INH at that time. Within a week of entry he was given a chest x-ray, which was clear. One year later, in May 1998, he complained of a cough during sick call, a complaint he repeated in June. In July 1998, he complained of chest pain and a cough; a chest x-ray done to rule out "pneumonia" was negative. In January 1999, he complained of a boil and disclosed that he is HIV positive. At that time, an HIV test was ordered and the boil was treated. Within nine days, however, he was sent to an outside hospital. The hospital immediately suspected that he was suffering from TB, placed him in respiratory isolation, and ran tests. Sputum and culture tests as well as a CT scan confirmed infectious pulmonary TB. He was given drug therapy for over a year, but was no longer infectious about four weeks after the drug therapy began. He remained in respiratory isolation for almost seven weeks.

Green Haven

Currently, 2,200 inmates are incarcerated at Green Haven. Approximately forty percent, or 894, are PPD positive and therefore excluded from the annual PPD testing program. For those inmates, there is no program to monitor their health on a regular basis; their complaints of health problems are addressed by the medical staff in the normal course.

There are seventy-six inmates at Green Haven who are known to be HIV positive either because they have consented to HIV testing or have declared their status. Those inmates who are infected with HIV and have a negative PPD test result are given anergy testing. If the anergy result is "negative," they receive INH or similar treatment. Eight of the seventy-six fall into this category. If the anergy test is "positive," then Green Haven relies on the negative PPD result and assumes the inmate is not infected with TB.

Green Haven administers approximately 1,300 PPD tests annually to inmates. The "large majority" take the test voluntarily; even those who are initially reluctant submit to the test after its purpose and benefits are explained to them. While Green Haven makes an effort to conduct the PPD testing program on an annual basis, it is not unusual for as many as eighteen months to elapse between tests.

Inmates in TB Hold at Green Haven are with some exceptions confined to their own cell, except for one hour of recreation per day and three showers per week. If an inmate has been assigned to a double cell, however, the inmate is transferred to a single cell. Inmates on any kind of restricted status, including inmates on TB Hold, are only permitted to attend outdoor recreation.[30] They walk to outdoor recreation with the general population and go to the general population recreation yard, a large field containing weights and exercise equipment, basketball courts, softball fields, etc. Inmates in the general population at Green Haven have the option of taking recreation in the morning or afternoon, and again in the evenings; inmates on TB Hold are permitted to select between the two daytime recreation periods. Inmates at Green Haven are housed in various locations, not all of which have direct access to the recreation yard. To get to the recreation yard, the plaintiff must walk through two other housing units.

334 *334 An inmate's thrice weekly showers follow the routine in the inmate's block. There are six shower heads in one communal shower, but an inmate may request to shower alone. Unlike inmates in general population, however, an inmate on TB Hold is not permitted to use the outdoor showers in the recreation yard.

Legal visits for inmates at Green Haven on TB Hold take place privately in a small enclosed room, or if the inmate forsakes privacy, in a larger room containing other inmates' visitors. Inmates on TB Hold cannot use the outdoor visiting area even though it is universally recognized that the risk of infection is close to negligible when one is out of doors. Neither inmate nor counsel is advised, much less required, to wear a mask. An inmate on TB Hold at Green Haven is not restricted in his use of the telephone, and is permitted to leave his cell to make calls in

accordance with the procedures and restrictions that apply to all inmates, and may travel through the prison under escort to pick up packages in the evening.

The longer an inmate is on TB Hold, the more relaxed the regime becomes. After some months, the inmate may be allowed to receive visits from family members, exercise more than one hour a day, and eat with the general population in the mess hall. This relaxation depends on the attitude of the guards in the inmate's housing unit rather than any formal policy.

The air in the cells circulates into the corridor on which cells are located. There is no ventilation system at Green Haven in the general housing units that would restrict the spread of TB.

If an inmate on TB Hold agrees to submit to a PPD test, the inmate is tested and the TB Hold restrictions are lifted immediately. The staff does not wait to see if the test is negative to lift the restrictions.

The evidence concerning Green Haven makes it clear that Dr. Wright has been under the erroneous impression that inmates in TB Hold are more separated from the general population than they actually are. He believed incorrectly that ventilation systems in the prisons control air flow and limit its recirculation from cells into corridors and other cells, that those on TB Hold do not exercise with the general population, and cannot make any telephone calls except to attorneys. The plaintiff has shown a strong likelihood of proving at trial that TB Hold is not enforced as written.

Dennis Reynolds

Reynolds, a practicing Rastafarian, is a forty-three year old inmate who has been incarcerated at Green Haven since June 1991. He was born in Kingston, Jamaica, where he was vaccinated for TB when he was a child. Reynolds contends that although he was given the PPD test on an approximately annual basis from December 1991 through 1996, he objected on religious grounds to such testing each year.[31] DOCS' records reflect no complaint based on religious grounds until 1998. Plaintiff's medical records indicate that on January 5, 1998, plaintiff submitted to the annual PPD testing "under duress," due to his religious beliefs. They also reflect Reynolds' reference to the *Jolly* decision. Based on Reynolds' refusal of the PPD test offered on February 1, 1999, he was placed in TB Hold until February 4, at which point he again submitted to the PPD test "under duress."

335 In 2000, Green Haven fell behind schedule in its annual TB testing.[32] Inmates *335 like Reynolds, who were tested in February 1999, were not scheduled for their "annual" test until approximately April 2000. On May 12, 2000, Reynolds was called out for his annual PPD test, at which point he refused to submit to the PPD test. Reynolds was thereupon placed in TB Hold, but was removed from TB Hold later that day to comply with this Court's Order. On May 19, plaintiff permitted a chest x-ray to be taken. It showed no evidence of TB.

CONCLUSIONS OF LAW

In order to obtain a preliminary injunction, generally the party seeking such relief must demonstrate

> (1) that it will be irreparably harmed in the absence of an injunction, and (2) either (a) a likelihood of success on the merits or (b) sufficiently serious questions going to the merits of the case to make them a fair ground for litigation, and a balance of hardships tipping decidedly in its favor.

Brewer v. West Irondequoit Cent. School Dist., 212 F.3d 738, 743 (2d Cir.2000). *See also* *Otokoyama Co. Ltd. v. Wine of Japan Import, Inc.,* 175 F.3d 266, 270 (2d Cir. 1999). When the "moving party seeks a preliminary injunction to stay government action taken in the public interest pursuant to a statutory or regulatory scheme," however, a preliminary injunction should only be granted if the movant meets the more rigorous "likelihood of success" standard. *Latino Officers Ass'n v. City of New York,* 196 F.3d 458, 462 (2d Cir.1999) (internal quotation marks and citations omitted).

In addition, the appropriate standard for preliminary injunctive relief must be determined by reference to whether the sought injunction is mandatory — altering the status quo — or prohibitory — maintaining the status quo. Although the Second Circuit has previously noted that the distinction between the two "is often more semantical than substantive," *Innovative Health Sys., Inc. v. City of White Plains,* 117 F.3d 37, 43 (2d Cir.1997) (internal quotation omitted), it is clear that an injunction in this case will alter the status quo: if Reynolds remains within the general prison population despite his refusal to submit to the PPD test it will be due only to this Court's intervention. Thus, because the injunction sought will alter the status quo and will provide the movant with relief that cannot be undone even if the defendants prevail at a trial on the merits, the plaintiff must show a "clear" or "substantial" likelihood of success. *Beal v. Stern,* 184 F.3d 117, 122-23 (2d Cir.1999). *See also* *Jolly,* 76 F.3d at 473-74.

In the context of considering an inmate's First Amendment claim, the Second Circuit has recently confirmed its characterization of the Free Exercise Clause as an "unflinching pledge to allow our citizenry to explore ... religious beliefs in accordance with the dictates of their conscience." *Jackson v. Mann,* 196 F.3d 316, 320 (2d Cir.1999) (internal quotation omitted). Because prisoners retain their right to religious freedom, an inmate is entitled to reasonable accommodation of his religious beliefs. *See id.* Nevertheless,

> [t]he fact of confinement and the needs of the penal institution impose limitations on constitutional rights, including those derived from the First Amendment, which are implicit in incarceration.

Jones v. North Carolina Prisoners' Labor Union, Inc., 433 U.S. 119, 125, 97 S.Ct. 2532, 53 L.Ed.2d 629 (1977). Thus, a prison inmate retains only those First Amendment rights "that are not inconsistent with his status as a prisoner or with the legitimate penological objectives of the corrections system." *Pell v. Procunier,* 417 U.S. 817, 822, 94 S.Ct. 2800, 41 L.Ed.2d 495 (1974). As a result, many prison policies restricting inmates' First Amendment
336 rights are upheld, although the same policies would not be permissible outside a *336 prison's walls. *See, e.g., Giano v. Senkowski,* 54 F.3d 1050, 1053 (2d Cir.1995) (citing cases).

The standard of review for a prison regulation that impinges on an inmate's constitutional rights is that set forth in *Turner v. Safley,* 482 U.S. 78, 107 S.Ct. 2254, 96 L.Ed.2d 64 (1987): a prison regulation is "valid if it is reasonably related to legitimate penological interests." *Id.* at 89, 107 S.Ct. 2254. *Accord* *O'Lone v. Estate of Shabazz,* 482 U.S. 342, 349, 107 S.Ct. 2400, 96 L.Ed.2d 282 (1987); *Nicholas v. Miller,* 189 F.3d 191, 194 (2d Cir. 1999). The methodology to be followed in determining the reasonableness of such prison regulations requires the Court to consider the following:

> First, there must be a valid and rational connection between the regulation and the governmental interest put forward to justify it, and the governmental objective must be legitimate and neutral. The court must then consider whether there are alternative means of exercising the proscribed right, the impact that accommodating the right will have on other inmates, on prison guards, and on the allocation of prison resources generally, and the availability of ready alternatives to the regulation.

Nicholas, 189 F.3d at 194 (citing *Turner,* 482 U.S. at 89-91, 107 S.Ct. 2254).

Defendants, relying on *Word v. Wright,* 98-CV-220A (W.D.N.Y. Oct. 28, 1999), and *Dorsey v. McQuillian,* 94 Civ. 3578, 1997 WL 411600 (S.D.N.Y. July 18, 1997), maintain that plaintiff has failed to establish a likelihood of success on the merits because two other courts in this circuit have ruled in DOCS' favor in cases challenging Policy § 1.18. These opinions, however, provide limited assistance. In *Dorsey,* the analysis of the rational relationship between Policy § 1.18 and the control of TB was too attenuated to provide guidance to this Court. *Word* is similarly unpersuasive. There, plaintiff's refusal to submit to PPD testing was based on allergies. Nevertheless, assessing plaintiff's claim under a First Amendment rubric, the court characterized the primary dispute as whether DOCS' policy "fully accommodates the prisoner's rights at de minimis cost" to the valid penological interest of protecting against the spread of TB. The court believed that this question was answered by *Jolly,* 76 F.3d at 479, and found that the conditions imposed by TB Hold "present[] a reasonable, less restrictive alternative to the former `medical keeplock' policy" therein at issue. The appropriate inquiry is not,

however, whether the current policy is less restrictive than the regime at issue in *Jolly,* but whether the conditions imposed by TB Hold are themselves constitutional under the *Turner* standard.

A. Irreparable Injury

The movant must show not a mere possibility but a likelihood of irreparable harm. *See JSG Trading Corp. v. Tray-Wrap, Inc.,* 917 F.2d 75, 79 (2d Cir.1990). The injury "must be shown to be imminent, not remote or speculative." *Reuters Ltd. v. United Press International, Inc.,* 903 F.2d 904, 907 (2d Cir.1990).

Plaintiff argues that subjecting him to the PPD test would constitute a severe violation of his religious beliefs,[33] and notes that the "loss of First Amendment freedoms, for even minimal periods of time, unquestionably constitutes irreparable injury." *Paulsen v. County of Nassau,* 925 F.2d 65, 68 (2d Cir.1991) (internal quotation
337 omitted). Second, plaintiff contends *337 that even if he is not coerced into submitting to the PPD test, he will be subjected to the restrictions of TB Hold which in itself constitutes irreparable injury.

This Court finds that even if plaintiff's confinement in TB Hold is not itself a *loss* of a First Amendment freedom, plaintiff's placement on TB Hold for the exercise of his religious beliefs is a substantial *burden* on his constitutional rights that cannot be adequately compensated monetarily. *See Jolly v. Coughlin,* 76 F.3d 468, 482 (2d Cir.1996); *Paulsen,* 925 F.2d at 68. The plaintiff has thus shown a clear likelihood of demonstrating irreparable injury.

B. Clear or Substantial Likelihood of Success

1. Legitimate and Neutral Governmental Objectives

Turning to the *Turner* factors, DOCS appears to be articulating three rationales underlying that portion of Policy § 1.18 requiring an inmate who refuses to submit to annual PPD testing to be placed in TB Hold for a period of one year. DOCS relies principally, and most explicitly, on its contention that placing such an inmate in TB Hold is "necessary" to protect the health of the other DOCS' inmates and staff.[34] In a related vein, DOCS also contends that requiring inmates to submit to PPD testing allows DOCS to prescribe preventive INH therapy to inmates with latent TB, reducing the possibility that they will develop TB and transmit the disease to others. DOCS also states that requiring inmates to submit to PPD testing provides "epidemiologic numbers" to monitor transmission of infection with TB and to determine whether those in close contact with someone with TB have become infected.

There is no dispute that all three of these goals are legitimate and neutral objectives for a penological system. Preventing the spread of an infectious, deadly disease is undoubtedly a critical objective for DOCS, and the subsidiary goals — including prescribing preventive therapy for latent TB infection and effective monitoring of epidemiological numbers — are equally important. Indeed, if DOCS failed to take adequate steps to protect the health and safety of its entire inmate population it would be violating the rights of those inmates and would be liable when they fell ill or were injured. *See, e.g., Jolly,* 76 F.3d at 477 ("correctional officials have an affirmative obligation to protect inmates from infectious disease"); *Lareau v. Manson,* 651 F.2d 96, 109 (2d Cir.1981) (failure to screen new inmates for "communicable diseases" showed "deliberate indifference to serious medical needs" (internal quotation omitted)).

2. Rational Connection between Policy and Governmental Interest

Turner requires an examination of the connection between the regulation at issue and the governmental interests put forward to justify it; "a regulation cannot be sustained where the logical connection between the regulation and the asserted goal is so remote as to render the policy arbitrary or irrational." *Turner,* 482 U.S. at 89-90, 107 S.Ct. 2254.

a. Protecting the Health of Inmates and Staff

The plaintiff has shown a clear and substantial likelihood of success in proving at trial that there is no valid or rational connection between placing an inmate who refuses PPD testing in TB Hold and the health of DOCS' inmate population and staff. If an inmate such as Reynolds cooperates with other diagnostic tools when
338 requested to do so — such as a chest x-ray, *338 sputum testing, and an examination for physical symptoms of active TB — his presence in the general prison population presents no realistic threat of the spread of infectious TB even in the absence of a PPD test result.

No other correctional system in the United States has found it necessary to institute a program like TB Hold to protect the health of prisoners and guards, and there is no evidence that these other systems are any less successful in their management of TB. Even the studies and the public health reports upon which Dr. Wright has testified that he relied in designing Policy § 1.18 contain no recommendation that a program like TB Hold be undertaken. DOCS' own experience strongly conveys that TB Hold is unnecessary: not a single inmate on TB Hold has ever developed active TB.

Latent TB is Not Contagious.

It is clearly irrational to confine "PPD refusers" in TB Hold on the ground it is necessary to protect others' health. The PPD test is a test for latent TB, which is not contagious and may never develop into the disease. Because inmates who refuse the PPD test are immediately examined for symptoms of TB disease, DOCS is quickly able to determine whether such inmates suffer from the active disease and may be contagious.

DOCS contends that it must treat those who refuse the PPD test as if their test result had been positive, but DOCS has not in the past and does not today treat inmates with positive PPD test results as if they present a health risk. Under the version of Policy § 1.18 struck down in *Jolly,* thousands of inmates with positive PPD test results who were not receiving treatment for their infection were housed in the general population, and despite this fact, DOCS effectively brought the TB epidemic of 1991 under control by at least 1994. Dr. Wright himself has relied on just such an analysis to defend the double-celling of PPD positive inmates with other inmates. For example, in *Bolton v. Goord,* 992 F.Supp. 604, 615, 628 (S.D.N.Y.1998), the Court relied on the testimony of Dr. Wright to find that "the fact that inmates who test positive for TB infection are not excluded from double cells ... does not present an objectively serious injury to the inmates." In *Wise v. Chassin,* 95 Civ. 9831(JSM), 1997 WL 790585 (S.D.N.Y. Dec.24, 1997), Dr. Wright defended DOCS against an Eighth Amendment challenge by inmates who had contracted latent TB while incarcerated within DOCS. The Court's finding that the decision not to isolate prisoners infected with TB was a "reasonable remedy" for the problem of TB in New York prisons, *id.* at *4-5, was based in part on Dr. Wright's testimony. Dr. Wright's affidavit in that case also discussed the danger presented by those who refuse to take the PPD test. According to Dr. Wright,

> [Inmates who refuse the PPD] are examined physically and by chest x-ray to assure that they do not have TB disease. *Under no circumstances are these inmates considered contagious. Thus, these inmates are not a health risk to those incarcerated near them or others.*

(Emphasis supplied).

In recognition of the fact that contagion is not at issue, TB Hold makes no sense as a disease containment mechanism: not only do inmates on TB Hold breathe the same air as inmates in general population and DOCS' staff, there is no evidence of any system of ventilation that minimizes the extent to which this is true. Moreover, no one within DOCS is advised that there is any danger from proximity to those on TB Hold, and they are not required or advised to wear masks or any protective gear. The same holds true for visitors to inmates on TB Hold. Visitors are not even required to sign the waivers DOCS uses routinely when inmates with infectious diseases receive visitors.

One Year Limit on TB Hold

339 The plaintiff has also shown a clear and substantial likelihood of success in proving *339 at trial that the very design of the one year TB Hold program is not rationally related to the goal of protecting the health of the inmate and others. To begin with, it is based on a mistake of fact. Dr. Wright asserts that he set the limit at one year in reliance on the fact that the threat of latent TB developing into the disease is five percent in the first year following infection and two percent in the second, and that he considered the five percent risk high enough to justify the restrictive confinement, but not the two percent risk. The medical evidence received at the hearing overwhelmingly establishes that the risk of disease in the first year following infection is two to three percent and not five percent.

In any event, even if the risk were five percent in the first year following infection, there is no rational basis for a one year restrictive confinement following a refusal to take a PPD test. DOCS represents that, with limited exceptions, the period of TB Hold is limited to one year per inmate. In other words, an inmate who refuses a PPD test is released into the general prison population after one year so long as he has not developed active TB; he is not returned to TB Hold in the event he subsequently refuses to submit to any further annual PPD test. Dr. Wright attempts to justify this one year limitation by reference to the increased risk of developing active TB in the first year after infection.

Absent a known contact with an active case of TB, however, there is no reason to believe that an inmate such as Reynolds even has latent TB, much less any significant risk of developing active TB, in the period from, for example, July 14, 2000 to July 14, 2001, as opposed to any other year he is in DOCS. Therefore, the one year period for TB Hold is arbitrary when applied to an inmate who has refused to submit to the PPD test since (1) the vast majority of such inmates will be PPD negative[35] and (2) even those who might test positive may have acquired the infection at any time since their last PPD test. Moreover, the average time separating an inmate's positive PPD reaction and a diagnosis by DOCS that the inmate has active TB is over two years.

Similarly, the restrictions on inmates on TB Hold have no rational connection to the protection of their health or the health of those with whom they reside. For instance, there is no medical reason for restricting the amount of time they can exercise, or for permitting them to meet in small enclosed rooms for unlimited periods of time with their attorneys but denying them the opportunity to visit out of doors with their attorneys, family members, or friends.

PPD Positive Inmates in General Population

The irrationality of the health justification for TB Hold is highlighted by the fact that inmates with a greater risk of spreading TB remain in the general population. There is a risk that those inmates who are actually known to be infected with TB will develop the disease. DOCS has documented cases of active TB arising from such PPD positive inmates, including those with a history of prior treatment. For individuals infected with HIV, the risk that an inmate who is PPD positive will become reinfected with TB and develop the disease is, according to the
340 defendants' expert, not a "small risk" even when the individual has *340 already had a full course of treatment with INH.[36]

Another group at particular risk that remains in the general population is those inmates who are HIV positive and not anergic but whose PPD results are negative. This element of Policy § 1.18 remains in place despite the fact that tests cannot reliably identify the anergic state. Therefore, HIV positive inmates who have an increased risk both for contracting TB and developing the active disease thereafter are permitted to remain in the general population despite the unreliability of their negative PPD tests. In addition, even inmates with competent immune systems may have become infected with TB, or even have developed the disease, but nonetheless have a negative PPD test result. In a population of 70,000, the number of such false negatives is in the thousands.

In sum, the fact that Dr. Wright has admitted in other litigation that inmates with latent TB "are not a health risk to those incarcerated near them or others"; the demonstrated success of prior Policy § 1.18 despite its tolerance of

PPD positive inmates within the general population; the demonstrated irrationality of the one year period; and the existence of other TB risk groups within the general population indicates that the plaintiff will be able to establish at trial by clear and substantial evidence that there is not a rational connection between placing an inmate such as Reynolds on TB Hold and the undoubtedly legitimate goal of protecting the health of DOCS' inmates and staff.

b. Prescription of INH for Latent Infection

It is unlikely that the plaintiff will be able to show at trial that there is no rational connection between some punitive sanction and compliance with the PPD testing program.[37] The plaintiff has shown, however, a substantial likelihood of proving at trial the absence of a rational connection between the TB Hold program contained in Policy § 1.18 and the goal of maximizing the number of inmates who can be effectively counseled (or required) to take INH, and thereby reducing the incidence of TB within DOCS. Requiring PPD testing on admission to DOCS and annually thereafter, when accompanied by the provision of treatment and counseling as to the importance of treatment, will reduce the incidence of TB disease, although, as indicated by DOCS' own experience, clearly will not eliminate the disease. The plaintiff has shown, however, that DOCS neither keeps nor is able to respond to requests for data that illuminate the role that TB Hold specifically serves in promoting the goal of identifying PPD positive inmates and encouraging them to begin a course of INH.

c. Epidemiologic Tracking

DOCS contends that TB Hold contributes to disease control in several additional ways. First, the number of inmates and prison staff with whom an inmate on TB Hold has contact is more limited than if the inmate were in
341 the general population without restriction. Consequently, if the *341 inmate should develop active TB it is easier to determine who has been exposed to the disease. Similarly, DOCS asserts that regular annual PPD testing of inmates helps identify clusters of newly positive inmates, that is, groups of inmates whose PPD test results have "converted" from negative to positive, and can help DOCS track down and identify the active case of TB that served as the source for the newly positive cluster of inmates.

The plaintiff has shown a strong likelihood of success in proving at trial that there is no rational connection between this epidemiologic tracking rationale and the TB Hold program. To begin with, no one on TB Hold 🔲 and DOCS has four years of experience with the program 🔲 has ever developed TB. Therefore, TB Hold has not been of any actual assistance in tracing any contacts between infectious prisoners and others. Even if one assumes that every inmate on TB Hold would have a positive PPD test result if the inmate were tested, there is still no rational connection. The general population is filled with tens of thousands of inmates who have actually had positive PPD test results or are infected without DOCS' being aware of their infection. Those infected inmates are at least as likely, if not more likely, to develop TB. Moreover, there is no significant isolation 🔲 from a medical point of view 🔲 of those inmates on TB Hold from the general population.

Perhaps most tellingly, DOCS was enormously successful in reducing the incidence of the disease under a policy which until 1996 allowed inmates with latent TB to remain in the general prison population whether or not they agreed to INH therapy.[38] The defendants' expert has variously characterized the version of Policy § 1.18 that was in place prior to May 1996, as "one of the great public health success stories of the 20th century," and as "an unqualified success."

With respect to the second epidemiological reason, the plaintiff has shown a strong likelihood of success in proving at trial that there is no rational relationship here either. While DOCS keeps detailed records concerning the individuals who are diagnosed with TB and has system-wide raw numbers on the conversion rate, there is no evidence that it collects or analyzes the epidemiological data it describes as the justification for compelling, through the TB Hold program, compliance with the annual PPD testing regimen.

In any event, an annual PPD testing program has marginal relevance to a contact trace. Since it takes two to ten weeks after infection to develop a positive reaction to a PPD test, contact tracing is supposed to be performed in two stages: immediately after discovery of the infectious person and about three months later. Those that convert

in that interval are assumed to have been recently infected.[39] The plaintiff has shown a clear likelihood of success in showing at trial that placing those who refuse an annual PPD test in TB Hold has no connection whatsoever to the conduct of a successful contact trace.

3. Alternative Means of Exercising First Amendment Rights

Reynolds' sincerely held religious beliefs are inconsistent with the taking of the PPD test. He cannot exercise his
342 observance of the Rastafarian prohibition on the injection of artificial substances into the *342 body other than by refusing to submit to PPD testing.

4. Availability of Ready Alternatives to the Regulation

> The law is clear that
>
> if an inmate claimant can point to an alternative that fully accommodates the prisoner's rights at *de minimis* cost to valid penological interests, a court may consider that as evidence that the regulation does not satisfy the reasonable relationship standard.

Turner, 482 U.S. at 91, 107 S.Ct. 2254. If an inmate refuses a PPD test on religious grounds, there are alternatives that accommodate an inmate's religious beliefs at *de minimis* cost to any valid interest articulated by DOCS.

Need to Protect Health

To the extent that DOCS is concerned that an inmate may be infectious and spread TB to others, one clear alternative to the regime of TB Hold is the isolation of that inmate until a chest x-ray is given, accompanied by a physical assessment by medical personnel, including the taking of a medical history, which rules out the possibility of active disease. Such inmates can thereafter be counseled and tracked, and because they are identified as religious "refusers," when and if they develop symptoms that are suggestive of TB, they can be immediately isolated until active disease is ruled out. Even the nurse at Green Haven in charge of the PPD testing program testified that she considers this alternative 🚫 which the plaintiff had requested at the time of his refusal of the PPD 🚫 reasonable. In sum, regular monitoring for physical symptoms of TB coupled with the provision of x-rays and, if desired, sputum testing, for those inmates objecting to the PPD test on religious grounds would enable DOCS to detect cases of active TB and promptly take appropriate steps to prevent transmission of the disease.

In *Jolly,* the Second Circuit found that a regimen of "periodic submission to chest x-rays and sputum samples" represented an alternative to the medical keeplock policy at issue there. *Jolly,* 76 F.3d at 479. Because *Jolly* was decided under the legal standards of RFRA, the defendants were required to pursue this "less restrictive alternative" despite their arguments as to the necessary diversion of prison resources that such an accommodation would entail. Although this mode of analysis is no longer legally appropriate, defendants have notably declined to argue the unacceptability of alternatives to TB Hold in terms of resource allocation[40] and instead have presented only arguments concerning the necessity of TB Hold in terms of public health. Moreover, other penological systems 🚫 including the Federal Bureau of Prisons and the State of Texas 🚫 employ such alternatives to TB Hold, a recognized anomaly as a policy of TB control. Dr. Wright admitted at this hearing that there are rational ways for a corrections system to respond to the threat posed by tuberculosis other than by using a program like TB Hold.

Need to Identify Latent TB

DOCS contends that the PPD test cannot be replaced by a chest x-ray and physical examination because these techniques will only identify active, not latent, TB. According to DOCS, because identification of latent TB through

the PPD test allows inmates with latent TB to be treated, techniques sensitive only to the active disease are an inadequate substitute because by the time the infection has progressed to the active stage, others may have
343 been *343 exposed and infected.[41]

While such an analysis has a certain appeal, there are several analytical difficulties with this justification of PPD testing as the only acceptable program of TB control to which no exception can be made. It is worth noting again DOCS' previous success in controlling TB under a policy in which thousands of inmates with latent TB remained within the general population regardless of whether they agreed to INH therapy. Moreover, the New York data reveals that despite the professed necessity of PPD testing without exception, approximately one-quarter of the inmates diagnosed by DOCS with active TB between 1997 and 1999, and who were admitted to DOCS after 1991, were not given a PPD test on admission (or even within four months of admission) despite having no prior history of a positive PPD test. Five of the fourteen inmates diagnosed with the active disease in that same period, all of whom had had a negative PPD upon entry to DOCS, were not given PPD tests on an approximately annual basis thereafter.

In addition, although DOCS' continuing success in curbing TB rates under the current Policy § 1.18 is undeniable, such success has occurred within a large, diverse system where there are, quite understandably, time lags and imperfections in the administration of its program, and therefore, in detecting a potential case of active TB. Even where it is administered perfectly, a PPD testing program is able to detect (with the limitations discussed above) most cases of latent TB, but it is not considered an indicator of active TB: ten to twenty-five percent of individuals with active TB have a negative reaction to the PPD skin test. Thus, even with annual PPD screening, individuals who are actually suffering from the active disease will not be detected. Moreover, the fact that PPD screening occurs on an approximately annual basis suggests at least two ways in which a case of latent TB may go undetected for at least one year even among that group of inmates to whom PPD tests can be reliably administered. First, if infection occurs shortly after the annual testing of any given inmate, such latent TB will not absent reporting to health personnel due to subsequent sickness be detected until the following year. Further, because an individual who has been infected with TB typically will not develop a positive PPD test result until two to ten weeks after infection, annual PPD testing will not detect the infection of any inmate who has been infected within that time frame.

These observations are not meant to disparage DOCS' current testing program, but simply to highlight the fact that certain inaccuracies and time lags are both inevitable and not inherently disastrous to a comprehensive TB control policy. Although it is desirable to minimize incomplete data, DOCS has failed to present evidence that its own highly successful TB program is dependent on knowing the PPD status of the relatively small number of inmates who object to such testing.

Because the index of suspicion for TB in a correctional facility is generally high and is particularly elevated in the case of a "PPD refuser" whose PPD status is unknown should an inmate exhibit symptoms indicative of TB, the inmate should be immediately suspected of the disease and promptly diagnosed. As Dr. Reichman explained in connection with the fact that, under the prior version of Policy § 1.18, PPD positive inmates were permitted to remain within the general population:

> [I]t was a good policy ... [because for] inmates that had a positive tuberculosis test and refused to
> 344 take Isoniazid, they *344 could still be in the general population because, A, they were evaluated first and, B, the positive skin test was on their record, they could be evaluated. When they came in and said, hey, Doc, I'm coughing, even though they were in the general population, they pounce on them and say let's x-ray you rather than do all these things and not x-ray you [because of a different diagnosis].... That's why I said it was a good policy.

Although religious refusers will not have a positive PPD recorded on their medical records, their charted refusal could be considered, as it now is, the medical equivalent in terms of the diagnostic response to any symptoms indicative of TB. These inmates can be monitored on whatever basis DOCS determines represents appropriate intervals, and because they will be recorded PPD refusers, active TB can be promptly detected. As Dr. Reichman noted, "[i]f you have a high index of suspicion, diagnosing tuberculosis, if it is there, is a relatively easy thing to do."

5. Impact of Accommodation

It is not clear that there would be any impact of an alternative regime on other inmates, DOCS' personnel, or the allocation of DOCS resources.[42] Policies providing for religious exemptions to PPD testing have been successfully implemented in other correctional systems without any adverse consequences.[43]

Increased Numbers of PPD Refusers

Dr. Wright speculates that without a mandatory screening policy, there might be large numbers of inmates who would refuse to take the PPD screening test. He cannot provide any estimate of what that number might be. Dr. Wright's speculation stems from his belief that inmates

> sometimes view DOCS' medical staff ... with antagonism and suspicion. Accordingly, they are oftentimes more reluctant than other patient populations to accept medical advice or otherwise act in a manner commensurate with public health and safety.

As a preliminary matter, those with actual experience in the field do not share Dr. Wright's fears. The defendants' expert witness, for example, whose medical practice includes patients from Essex County Jail and Rahway State Penitentiary, testified that

> when I talk to [prisoners], many of them, certainly not all of them, are very reasonable, listen to you and comply. I think there is a definite ... correlation between the amount of time and quality you spend with a prisoner and how well he complies.

Dr. Shansky's testimony on this point echoed that of Dr. Reichman:

> [I]nmates coming into a system or for that matter residing in the system overall participate remarkably well in required programs. Of course, there are some refusals and refusers who are going to be refusers in any type of program which includes human beings. But what is remarkable from what I have seen is the degree to which when inmates are informed of something and told they need to participate, the degree to which they do participate.... The key is implementing a policy in which the inmates are counseled ... why the policies are being done the way they are, and the overwhelming majority of people will participate.

Even the nurse at Green Haven reported extremely high levels of voluntary compliance by inmates once they
345 were given a *345 explanation of the benefits of the PPD test.

Moreover, as was the case in *Jolly,* "there is simply no evidence that a religious exemption ... would undermine the DOCS testing program," *Jolly,* 76 F.3d at 478, "jeopardize the discovery of TB or result in a flood of prisoners refusing to take the TB test," or cause general "concern or unrest," *id.* at 479. Since DOCS has not analyzed its experience with TB Hold, it has no data on how many inmates have been placed in TB Hold for refusing to submit to the PPD test, how long they have stayed in TB Hold before submitting, or how many of these individuals have given adherence to their religious beliefs as their reason for refusal. Without such information, DOCS' parade of horrors represents its fears but not evidence.

Moreover, Dr. Wright's speculation appears to assume that DOCS will have to choose between the regime currently in place and a purely voluntary program of PPD testing. Should the plaintiff succeed in proving at trial that he should not be confined in TB Hold based on sincerely held religious beliefs, there is no reason that that verdict should be seen as the equivalent of eliminating mandatory PPD testing.

It is not the role of the Court to design public health programs, much less ones for correctional institutions that are faced with challenging medical and safety issues. Nothing in this Opinion should be understood as limiting the power of DOCS to design and administer a program to prevent, detect, contain, and treat tuberculosis, including a mandatory PPD testing program, so long as it makes constitutionally required accommodations for sincerely

held religious beliefs. Moreover, DOCS is not required, by law, to do only the minimum necessary to combat this serious disease. An aggressive, serious effort based on sound medical knowledge and established principles of correctional medicine is to be lauded and encouraged. In sum, this Opinion is confined to the issue of whether the plaintiff has shown a clear and substantial likelihood of proving at trial that he is entitled to an exemption from the TB Hold component of Policy § 1.18 on account of a sincerely held religious objection to the PPD test.

CONCLUSION

The plaintiff's motion for a preliminary injunction is granted.

SO ORDERED.

[1] Due to scheduling constraints, Dr. Reichman was cross-examined on July 5.

[2] Mexico, the Philippines, and Vietnam account for nearly half of the immigrants who develop TB.

[3] While pulmonary tuberculosis constitutes roughly 85% of the tuberculosis found in those with intact immune systems, it constitutes only about 40% of the cases in those with compromised immune systems.

[4] As explained below, a primary indicator of the degree to which a person is infectious is the laboratory analysis of a "smear" of the sputum obtained from a person who has pulmonary tuberculosis.

[5] For otherwise healthy individuals undergoing annual testing, an induration of ≥10mm within a two year period may indicate a recent infection.

[6] All species of mycobacterium are "acid-fast." Once the bacterial cell is stained with dye, it resists decoloration by acidified alcohol.

[7] The presence of mycobacteria other than tuberculosis is relatively rare unless the individual suffers from HIV, in which case it is common.

[8]
Although the protection conferred by taking at least nine months of INH is greater than that conferred by taking six months, it is now believed that no further protection is conferred by extending the duration of treatment from nine to twelve months.

[9] In the 1970s, several persons taking INH died from hepatitis. Due to this experience, for many years INH was not recommended to treat low-risk persons over thirty-five years of age. Today, monitoring is considered sufficient protection for an individual taking INH unless the person has active hepatitis or liver disease.

[10] The Institute of Medicine was established in 1970 by the National Academy of Sciences to examine policy matters pertaining to public health. The project that resulted in the preparation of *Ending Neglect* was funded by the CDC.

[11] On June 7, 1996, the Epidemiology Program Office of the CDC published recommendations of the Advisory Council for the Elimination of Tuberculosis. *See* Centers for Disease Control and Prevention, *Prevention and Control of Tuberculosis in Correctional Facilities; Recommendations of the Advisory Council for the Elimination of Tuberculosis,* 45 Morbidity and Mortality Weekly Report (June 7, 1996). In general, this document summarizes the *Guide.*

[12] A long term inmate is defined as an inmate confined for over 14 days.

[13] Although the *Directive* does not appear to require annual PPD testing, Dr. Wright asserts that such annual testing is done by the Federal Bureau of Prisons.

[14] By 1995, 62,941 inmates and 35,293 staff were being tested annually with the PPD test. Altogether, 461,730 PPD tests were administered by DOCS between 1991 and 1995.

[15] The rate of TB among the general population of New York State in 1993 was 21.7 per 100,000.

[16] DOCS explains anergy testing and its importance in the context of TB as follows:

Cutaneous anergy is the failure to show a dermal immune response to any of several injected antigens.... Absence of response to [] injected antigens indicates that the patient is anergic. Anergy testing provides important information when assessing a patient's risk of developing active TB. This is most important for patients infected with HIV or exposed to an active case of TB.

Policy § 1.18(I)(F). Since the most recent revision to Policy § 1.18, anergy testing is no longer recommended by public health experts to assist in making decisions concerning treatment for a TB infection. According to the CDC and ATS, the usefulness of anergy testing in selecting tuberculin-negative, HIV-infected persons who might benefit from treatment of latent TB has not been demonstrated. Accordingly, it is not recommended for routine use in persons who are HIV-infected or otherwise immunocompromised. The defendants' expert recommends not giving HIV-infected inmates either the PPD test or anergy testing, but instead, automatically giving all of them a course of treatment with INH.

[17] For example, in 1993, 24% of 205 cases of TB in one New York county occurred among jail inmates, former inmates, jail employees, or community contacts; eight percent of all of these cases developed through community contacts with former inmates in the jail.

[18] Only relevant differences from DOCS' current TB Policy are discussed.

[19] The Circuit also found a likelihood that Jolly would succeed on his claim under the Religious Freedom Restoration Act ("RFRA"), an Act which has since been held to be unconstitutional.

[20] While I find Dr. Wright to be sincere in his commitment to the health of DOCS' inmates and staff, I did not find his testimony illuminating or reliable. Much of Dr. Wright's testimony at this hearing was filled with speculation, error, and flat contradictions with his prior sworn statements. While examples abound, one of the most striking was his repeated and adamant denial that the May 1996 change to Policy § 1.18 had been prompted by *Jolly* until confronted with his sworn statement in prior litigation that *Jolly* had been the "major precipitating factor" for the change.

[21] DOCS does not keep any data showing how often it has relied on "documentation" to excuse participation from the testing program. The plaintiff has shown a strong likelihood of proving that DOCS does not actually require such "documentation" but routinely relies on an inmate's oral report. After all, few inmates can be expected to arrive at DOCS with their prior medical records or doctors' notes, and yet the limited data provided by DOCS at this hearing in response to Court Order reflect repeated reliance on an inmate's report of prior PPD test results and treatment.

[22] These portions of Policy § 1.18 were added to protect DOCS from the charge leveled in *Jolly* that it was allowing thousands of inmates that it knew were PPD positive and untreated to remain in general population. Removing 97 on paper at least 97 an apparent inconsistency, however, does not mean that current Policy § 1.18 now reflects sound public health policy.

[23] The Policy appears to permit inmates who refuse to submit to the PPD test to leave TB Hold if they take INH, even though the defendants' expert flatly condemned giving this toxic medication to anyone who does not have latent TB.

[24] Skin test conversion is the presence of an active PPD test result in someone who previously had a negative PPD test result.

[25] In the event of a staff member's refusal to submit to testing, the Policy provides that he or she should be counseled about the benefits of the testing; employees with symptoms of tuberculosis must be excluded from the workplace. Policy § 1.18(V)(B)(2)(h) & (i).

[26] Legal visitors to inmates on TB Hold are not required to sign a "visitor's disclaimer." Policy § 1.18(IV)(A)(4)(f).

[27] As applied to TB control, directly observed preventative therapy ("DOPT") refers to the requirement that inmates take the medicine prescribed for an infection with TB under the direct observation of DOCS' medical staff to insure full compliance with the regimen.

[28] Using the detailed report created for each inmate who has been diagnosed with TB (the "TB Registry") and its computerized data bank listing, among other information, the dates on which certain tests were administered to inmates (the "Problem List"), DOCS was able to respond to some of the requests for data made by Dr. Shansky. DOCS warns, however, that some of the data is "unreliable" since there has been no systematic recording of data onto the Problem List. Since the data was also taken from the TB Registry and since the TB Registry contains significant detail of the relevant medical history of each diagnosed case of TB, the Court is satisfied that the data produced by DOCS is sufficiently reliable to be used at this hearing. Moreover, despite ample opportunity, DOCS did not supply any other "more reliable" data. Since public health professionals, as well as courts, need data to make informed judgments about matters of concern, there is no unfairness in using the best (and only) data DOCS has available to analyze its TB control program.

[29] There were 18 inmates diagnosed by DOCS with TB in 1997, 16 in 1998, and 19 in 1999.

[30] The only indoor recreation at Green Haven is in the evening during the winter, and for "honor blocks" like the one in which the plaintiff is currently housed. Indoor recreation is not available to inmates on restricted status.

[31] According to Ras Sydney DaSilva, Chairman of the Rastafari Centralization Organization in Kingston, Jamaica, central to the Rastafarian belief system is a

view of the body as the Holy Temple of Jah-God which must not be defiled or contaminated by any form of artificial chemical injections or drugs. This is an absolute value, and a true test of a Rastafarian['s] commitment to his faith is the extent to which he lives by this principle.

[32] There were two reasons for this delay: (1) two facility-wide lock downs lasting cumulatively twenty-four days, and (2) a nurse's medical leave of absence from Green Haven lasting another twenty days.

[33] In its summation, DOCS challenged for the first time the sincerity of Reynolds' religious beliefs. Based on the evidence at this hearing, the plaintiff has shown a strong likelihood of prevailing on this issue at trial. The defendants did not in any meaningful way cross examine Reynolds on the issue of his sincerity, even though his direct testimony incorporated his explanation of his religious beliefs given in his deposition. Reynolds so succeeded in convincing the Green Haven nurse who administers the PPD program of his sincerity that she petitioned Albany 🀫 unsuccessfully 🀫 to allow Reynolds to be excused from annual PPD testing in exchange for submitting to an x-ray and other testing.

[34] The Court would be entitled to conclude its analysis with a discussion of the public health issue alone since it has repeatedly been advanced by DOCS as its only justification for TB Hold. Out of concern, however, that every potential justification for this important corrections policy be analyzed carefully, the Court has liberally construed the defendants' papers to find two additional proffered justifications.

[35] Dr. Wright estimates that the likelihood that the PPD refuser on TB Hold would test negative is better than 98%. Even if the inmate on TB Hold would have had a positive PPD test result if tested, the risk of developing the disease in the first year of infection is two to three percent. Taken together, an inmate whose PPD status is unknown has a risk substantially less than one tenth of one percent of developing TB during the year on TB Hold and a risk of less than .00008 of developing TB during any one month that falls between the monthly physical examinations given inmates on TB Hold. The risk that the inmate has become infectious in that month is even smaller.

[36] The risk of reinfection applies to all persons whose immune systems are compromised, and includes not only HIV-infected inmates, but also those suffering from malnutrition. Moreover, although on its face Policy § 1.18 appears to require all inmates with positive PPD test results to undergo INH therapy unless they have a "documented" history of successfully completing a full course of such treatment, the plaintiff has shown a significant likelihood of success in proving at trial that this written policy is not followed and that many inmates

who merely report having been treated for TB prior to their entry to DOCS, including inmates who subsequently develop the disease while within DOCS, are not given another course of treatment with INH or some similar drug by DOCS.

[37] Although Dr. Wright has at times strenuously denied that Policy § 1.18 has any coercive purpose, including in his May testimony before this Court, at other times he has asserted that TB Hold encourages compliance with DOCS' testing and treatment efforts.

[38] It appears that this practice still exists on a wide scale today although the terms of the current Policy § 1.18 would dictate that such inmates take INH or be confined on TB Hold. Over one-half of the inmates who were diagnosed while at DOCS since 1996 as having TB and who had a positive PPD test result on admission received no drug treatment by DOCS before their diagnosis.

[39] Those that are positive for the first time during the first round of testing reflect an infection since their last test, but not necessarily an infection from the individual prompting the contact trace.

[40] Because Policy § 1.18 already provides for relatively rigorous medical attention to inmates in TB Hold 99 including multiple chest x-rays and physical examinations 99 it is not clear that, regardless of the comparable expense of PPD testing and x-rays, the alternative proposed by the plaintiff would either increase DOCS' overall expenses or significantly alter resource allocation.

[41] DOCS argues additionally that the inmate who refuses the PPD test cannot simply be treated with INH because the potential side-effects of that drug are significant enough that INH treatment is only indicated in the case of an actual diagnosis of TB infection. There is no evidence that treatment with INH absent a known PPD positive status would be an appropriate alternative to the regime of TB Hold.

[42] As noted above, DOCS has submitted no evidence of impact on its resources.

[43] For example, the Texas Administrative Code delineates a TB control program in which "[i]nmates are exempt from [PPD] screening if the screening conflicts with the tenets of an organized religion to which they belong.... Correctional facilities may elect to perform chest x-rays on inmates instead of a skin test screening program." 25 Tex. Admin. Code § 97.173(4)(C)(iv) & (5)(A).