

**Tuberculosis: A disease of the past, or not?**  
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Tuberculosis, or TB, is a disease that many of us consider a disease from the past, or a disease that only affects people in third world countries. Many people may still remember when the Dane County Human Services building on Northport Drive was a sanitarium.

However, TB is a current issue. The lack of a public health infrastructure in many countries has kept TB rates high, but sporadic and inconsistent attempts at treatment have helped to promote the development of multi-drug and extremely-drug resistant TB. While TB is much more widespread in countries that suffer from poverty and high rates of HIV/AIDS, international travel blurs the boundaries between rich and poor nations, bringing more active cases to our own backyards. In late December of 2009, the Associated Press reported on the first U.S. case of an extremely drug-resistant (XXDR) strain of TB. XXDR is very difficult to treat because of its resistance to most TB medications.

TB is a bacterial disease that can attack any part of the body, although the lungs are the primary site of infection. Some people exposed to TB will develop an active, or latent, form of TB. The body is able to fight the bacteria and stop the bacteria from multiplying. Latent TB can be treated with a medication called isoniazid over a period of nine months to prevent the development of active TB. Latent TB is not contagious, but 10 percent of people with untreated latent TB will develop active TB disease at some point in their life.

In its active form, TB makes people very sick, with symptoms such as coughing, fever, night sweats and weight loss. A person with regular contact with someone with active TB of the lungs or throat can be infected through exposure to coughs, sneezes, or even talking. This makes TB a prime concern for Public Health Madison and Dane County (PHMDC).

Patients with active TB disease require two to seven visits per week from public health staff. Public health staff are required to confirm that the patient takes his or her medication and stays isolated while infectious. While public health staff have no authority to dispense the medications or force the patient to take the medications, they are obligated to report if a patient refuses the medications. Public health nurses also help minimize the risk of infection to those living with the patient as well as helping the patient find support services that are often needed.

If the patient has a multi-drug resistant strain of TB (MDR TB), visits can continue for two years or longer. Some of the MDR TB medications are toxic and produce

unpleasant side effects. However, after completion of TB treatment, these side effects usually disappear.

Public health departments work diligently to protect the community from TB and can enforce consequences for non-compliance, through court action, travel restrictions and, on very rare occasions, forced incarceration. Non-compliant patients present troubling challenges with the balance between a person's individual rights, and the rights of a community to be safe from a potentially deadly and contagious disease. Patients with active TB do not have the right to infect other people.

Each TB case can cost hundreds of thousands of dollars. All TB medications are paid for with state tax funds and are free to the patient. Here in Dane County, at any time, as many as 17 PHMDC staff are actively working on TB cases or suspected TB cases.

In 2008, there were eight active cases, but in 2009 there were twelve. While these numbers are low, the financial cost is high. In Dane County, we are fortunate to have the resources to manage this low profile but serious communicable disease. The consequences of not having that protection would be unimaginable.