Hello. Welcome to this webinar titled “Preventing and Controlling Tuberculosis in Correctional Settings.”

This webinar was produced by the Minnesota Department of Health Tuberculosis Program. I am Ann Sittig with the MDH TB Program.

This is the fourth module of our series of webinars about preventing and controlling tuberculosis in correctional settings.

The focus of this module is active tuberculosis.
Following completion of this module, participants will be able to:

• State two reasons for treating active TB in correctional settings

• Describe two instances that require airborne precautions for TB

• Describe three basic principles of treating active TB

• Identify three discharge situations requiring medical release planning for offenders with active TB

• Name two resources available to assist with managing active TB cases
This module will discuss:

1. Reasons why we need to be mindful of the risk for TB in prisons and jails

2. Responding to a situation where someone has signs or symptoms of active TB

3. Treatment recommendations for active TB

4. Monitoring of persons taking treatment for active TB, and

5. Best practices for medical release planning for individuals taking treatment for active TB

We will finish with a case study designed to highlight these concepts.
Throughout these training modules, we will use several acronyms. Here are several that you should be aware of:

**CDC** is the U.S. Centers for Disease Control and Prevention, which is the public health agency of the United States government.

**IGRA** stands for interferon gamma release assay, which is a relatively new test for the presence in the body of the bacteria that causes TB.

**LTBI** is a condition in which the TB bacteria is present in the body but is not actively growing or causing disease. In other words, the bacteria are “dormant.” LTBI is not contagious but can progress to active TB disease in some persons.

**LPH** stands for local public health agency, also known in Minnesota as county health departments. In Minnesota, local public health agencies provide direct care to persons with TB.
MDH stands for the Minnesota Department of Health, which is the public health agency for the State of Minnesota. MDH and local public health departments work closely together and with others to protect the public from TB.

TB is a shortcut for “tuberculosis.”

A TB case is an epidemiologic term for someone with active TB disease. TB statistics reported by the health department refer only to people with active TB. LTBI is not reportable to the health department in Minnesota and is not included in our statistics.

TST stands for TB skin test, sometimes referred to as the “Mantoux” or “PPD,” which is an abbreviation for purified protein derivative.
First we will talk about why TB is a concern in correctional facilities.
Why do we need to be particularly mindful of the risk for TB in prisons and jails?

It is because TB occurs more often in correctional facilities than in the general public, and that TB transmission still sometimes occurs in correctional facilities. Unfortunately, several outbreaks of TB are reported in the media and public health publications in the United States every year.

The greatest risk for TB is from offenders (and employees) who have active, infectious TB that has not been recognized. Individuals with undiagnosed (and therefore, untreated) TB who continue to share air space with others, continue to spread their infection to others.
Let’s start by talking about TB.

TB is a serious infectious disease caused by an acid fast organism called *Mycobacterium tuberculosis*.

Although TB is usually treatable, it can be fatal.

TB is transmitted from one person to another when someone with infectious TB coughs, sneezes or otherwise expels tiny droplets containing the TB bacteria into the air. Because these droplets are so small, they can remain suspended in the air for extended periods of time, where others can breathe them in.

The bacteria initially go to the lungs. If the body’s immune system is not able to contain the infection, it may spread to other parts of the body.

There are two phases of TB: latent TB, or “LTBI” and active TB disease.

It is important to remember that TB is not spread by shaking hands, or from food, dishes, linens or other objects.

Only people with active TB can spread it to others.
It typically takes several hours of exposure to TB to become infected. Brief exposure to someone with active TB does not usually pose a risk.

If a person is closely exposed to the TB bacteria, there is approximately a 30-40% chance that they will become infected with TB (see teal boxes).

Of those who become infected, 90% will remain in the latent phase for the rest of their lives. Persons with LTBI cannot spread the infection to others.

However, up to 10% will develop active TB disease. Half of the risk of developing active TB occurs within the first 1-2 years after the infection occurs. The remaining 50% of individuals will develop active TB disease sometime later in their lives.

Certain medical conditions, most notably HIV infection, increase the likelihood that the person will develop active TB disease.

Persons with active TB of the lungs or respiratory tract should be considered possibly infectious until treatment has begun.

Both latent and active TB can be treated with special TB medications.
A combination of 3 factors determines how likely it is that someone with active TB will transmit TB to others.

First, transmission depends on the level of infectiousness of the person who is sick. Only persons with pulmonary or laryngeal TB may be infectious.

Someone with advanced pulmonary TB, who has a heavy, productive cough, positive sputum smears, or a cavity seen on chest X-ray, is much more likely to spread bacteria into the air than someone without these signs or symptoms. But if the TB is diagnosed early when symptoms are milder, the person is less likely to infect others.

Second, the environment plays a big role. For example, someone who is coughing in a car with the windows closed is much more likely to spread TB than someone who is outdoors or in a large, well-ventilated room.

Lastly, transmission depends on the duration of the exposure. Typically, the longer the exposure lasts, the more likely it is that another person will become infected.
Knowing the difference between active TB and latent TB infection is important to determining if there is a possibility of transmission. This table shows the difference between LTBI and active TB disease.

With LTBI, there are a small number of TB bacteria present in the body but the immune system has walled them off so that they do not spread or damage tissue. Someone with latent TB usually has a positive TB skin or blood test. The person does not have a cough or other TB symptoms and their chest X-ray is usually normal. They do not need to be isolated from other people. Treatment for LTBI is optional, but recommended for most people to prevent them from developing active TB.

In contrast, for someone with active TB, the TB bacteria begin to multiply and can spread to other parts of the body, causing damage to organs or tissues. People with active TB may experience symptoms related to the disease. Their chest X-ray may show damage to the lungs. They may require isolation until they have started TB treatment. People with active TB need to take the appropriate treatment in order to be cured.
So let’s focus on active TB now. Active TB is the presence of actively growing *M. tuberculosis* organisms (tubercle bacilli) usually with symptoms and/or radiographic evidence of TB disease.
Individuals with undiagnosed (and therefore, untreated) TB who continue to share air space with others may continue to spread their infection to others. Therefore how we respond to a person suspected to have TB is very important.
Persons with pulmonary TB or TB in the lungs may be infectious to others. Reducing the possibility of transmission from someone who might have active TB is crucial to controlling TB in correctional facilities.

Separating persons from others by placing a mask on the offender and initiating airborne isolation precautions are ways to reduce transmission.

Consulting with the public health department and arranging for medical follow-up are also important steps to initiating prompt treatment to reduce transmission.
A surgical mask should be placed on any offender who has signs or symptoms of TB disease or has documented TB disease and has not completed treatment or previously been determined to be non-infectious.
Surgical masks are designed to capture large, wet particles that might be expelled by the person who is coughing or talking. So they reduce the spread of organisms from the offender to others.

Surgical masks have large pores and lack a tight seal around the edges.

They do not require fit testing like N-95 mask.
Separating persons from others by initiating airborne isolation precautions is another way to reduce transmission.
TB airborne precautions should be initiated for any offender who has signs or symptoms of TB disease or has documented TB disease and has not completed treatment or previously been determined to be non-infectious.
Individuals with active TB in sites outside the respiratory system are rarely infectious to others and respiratory isolation is not necessary for these individuals.
If an offender is suspected of infectious TB of the lungs or airways, he or she should be placed in an airborne infection isolation room with negative air flow. These rooms were previously called negative pressure isolation rooms.

When the offender is outside the room, he or she should wear a surgical mask and use proper technique when coughing to minimize aerosolization of droplets.

Staff should wear personal respiratory protection (N-95 masks). Visitors should be given N-95 masks to wear while in airborne isolation rooms and should check their own mask for a proper seal.
An N-95 air purifying respirator provides adequate respiratory protection and reduces the risk of infection with *M. tuberculosis*.

Staff members who use these masks must participate in the respiratory protection program and should be fit tested.
If an offender is suspected of infectious TB of the lungs or airways and an airborne infection isolation room is not immediately available, the individual should be separated from others and placed in the best ventilated room possible.

The offender should wear a surgical mask and use proper technique when coughing to minimize aerosolization of droplets.

Staff should wear personal respiratory protection (N-95 masks)

Visitors should be limited.
The individual should be transferred to a facility that is equipped to isolate, evaluate, and treat TB patients.

Following transfer, the room should be ventilated to remove airborne contaminants.
It is best if potentially infectious offenders are transported by ambulance.

When transferring an offender in an ambulance, the offender should wear a surgical mask and transport personnel should protect themselves with N-95 masks.

The ventilation system should be set to bring in a maximum amount of outdoor air.

The ambulance ventilation system should be operated in a nonrecirculating mode and the rear exhaust fan should be used.

Airflow should be from the front of the vehicle over the offender and out the rear exhaust fan.
When transferring an offender with suspected infectious TB in a vehicle other than an ambulance, the offender should wear a surgical mask and transport personnel should protect themselves with N-95 masks.

The ventilation system should be set to bring in a maximum amount of outdoor air and the ventilation system should be operated in a nonrecirculating mode.

The offender should be placed in the rear of the vehicle. The cab should be isolated from the rest of the vehicle if possible.
Now we will talk about reporting to the health department.
Case reporting and consulting with the public health department are important steps to preventing and controlling TB in correctional facilities.

Mandatory reporting of offenders or employees with suspected and confirmed TB is legally required of all correctional facilities and is a best practice.
Early reporting allows the correctional facility to utilize health department resources for case management and for the contact investigation in the facility and the community.

This reporting should occur even if the offender has already been released or transferred from the facility.

Offenders or employees with TB of the lungs, airways, or any other sites should be reported to public health.
Reporting should include laboratory confirmed cases of TB, situations where clinical and radiologic studies support TB diagnosis, and situations where a provider has initiated therapy for active TB treatment.
Next I will talk briefly about the basic components of a medical evaluation for TB. Detailed information about diagnosis of TB is beyond the scope of this webinar and is available from other resources.
If possible, persons with suspected or confirmed active TB should be seen by medical providers with expertise in the management of TB disease.

The medical evaluation consists of taking a medical history with review of medical conditions, risk factors, and symptoms. This is followed by physical exam, TB tests, and radiologic studies such as chest X-rays.
Three sputum specimens for acid fast bacilli (AFB) smear and culture should be obtained if symptoms or chest X-ray findings are consistent with pulmonary TB.

These specimens should be collected at least 8 hours apart with at least one specimen collected in the early AM.

Detection of AFB in smears by microscopy provides the first laboratory indication of TB disease.

The culture of the clinical specimen can provide definitive diagnosis of TB disease.

Drug susceptibilities direct the choice of medications.

Hospitalization may be necessary for diagnosis and treatment initiation if a correctional facility does not have the ability to house persons with potentially infectious TB or if the patient requires complex medical care.
Now we will talk about basic principles of the treatment of active TB
The decision to initiate treatment of active TB should be made based on epidemiologic information, clinical and X-ray or CT scan findings, and microbiology lab results. As noted in Module I, treatment of active TB is another best practice in preventing and controlling TB in correctional facilities.
The purpose of active TB treatment is two fold...
To cure the offender of the disease and to stop transmission to others.
The general rules for treating active TB include using a safe, effective regimen that can be completed in a short time period.

It is necessary to use multiple drugs to treat active TB. Using only one drug is not effective and can cause the person to become resistant to that drug.

Medications should be administered via directly observed therapy to ensure treatment completion.

Finally, the individual should be monitored by a medical provider on a regular basis.
The medical provider may need to consider several factors when choosing an appropriate drug regimen.

Treatment may need to be modified for individuals with drug resistant TB or who have responded poorly to initial treatment.

Special consideration must be given to individuals who are prescribed certain HIV medications or for persons with liver disease.

It is also important to identify psychosocial factors that might affect the choice of a treatment regimen if the offender is released from the facility prior to completion of therapy. Examples of these include substance abuse and homelessness.

Additional information about managing complicated TB cases is available from other sources, if needed.
Typically 4 drugs are necessary for the initial 2-month phase of treatment. This is followed by a 4-7 month continuation phase of treatment with 2 drugs.

Treatment is usually 6- 9 months long.

First line TB medications should be given as a single dose rather than in divided doses. The treatment may be administered by daily, twice weekly, or thrice weekly dosing.
These TB medications may be taken with a small amount of food.

All persons with active TB should have directly observed therapy to insure adherence.

In Minnesota, treatment of TB is mandatory only if a person is considered potentially infectious. This generally includes only patients with infectious TB in the lungs. Offenders who refuse to take medication for treatment of active TB should be reported to the TB nurse case managers at the Minnesota Department of Health.
Directly observed therapy (DOT) is highly recommended for persons with pulmonary and/or extra pulmonary disease.

With DOT, a health care worker/trained assistant watches the offender swallow each dose of TB medication and records each dose.

Even in supervised settings, such as a correctional facility, it is important that actual ingestion of the medication is observed.

DOT of TB medications continues when an offender is transferred between facilities or released to the community.
DOT promotes completion of therapy and may prevent drug resistance. DOT promotes adherence when used with other measures such as enablers and incentives.

DOT provides opportunity for education, establishes a routine of medication administration, and allows the health care worker to identify adverse reactions, problems with adherence, or worsening TB.
The consequences of missed doses of TB medications are many: they include longer regimen, longer time to non-infectious state, poor use of limited correctional facility and public health resources, and possible development of drug resistance, especially if there are frequent interruptions in treatment.
How interruptions in treatment are managed, depends on whether the break occurs early or late in the treatment plan.

Oftentimes extending treatment is sufficient to cover missed doses. Sometimes, treatment needs to be restarted.

If there are lengthy breaks in therapy, the offender should be examined by a medical provider to rule out progression of disease.

We encourage you to contact the MDH TB Program with questions about dosing or to change medication shipments.
MDH TB Program nurses coordinate case management of persons with active TB by working with corrections, local public health, and the medical provider.

Careful case management efforts ensure that treatment is consistent with CDC guidelines and that care continues through medical release planning or transfer to another facility.
Individualized case management is one way to ensure continuity of care for offenders diagnosed with active TB.

Case management should be provided for all offenders with TB disease.

Care and treatment of active TB should be coordinated by an assigned health care professional.

Case management requires good rapport with offenders, and includes referrals to help offenders meet general needs upon transfer between facilities or release to the community.
Individual case management allows the health care professional to monitor the offender’s treatment plan, organize follow-up, and communicate treatment history with local and state health departments as needed.
Now we are going to talk about medical monitoring during active TB treatment. Individuals with active TB should be seen by the medical provider responsible for managing their TB at least once a month throughout therapy.
Preventing and Controlling Tuberculosis in Correctional Settings: Module IV

Monitoring active TB treatment includes monitoring both the pre-treatment evaluation and the actual medication plan.

During the pre-treatment evaluation, specimens are collected for microscopic exam and mycobacterial culture.

Anyone who has TB disease or is suspected of having TB disease should be tested for HIV.

Individuals with risk factors for drug-induced hepatitis (for example, alcohol abuse or hepatitis B or C) should have baseline tests and follow-up testing if these are abnormal or if symptoms of liver toxicity occur during treatment.
Monitoring active TB treatment includes monitoring the offender during administration of TB medications.

The health care provider should assess the offender’s progress to ensure safe treatment. Once the medications are ordered, the case manager can monitor the individual for adherence, adverse effects, and response to treatment.
First we will talk about adherence.
"The microbe is nothing...the terrain everything."

-----Louis Pasteur

The microbe is nothing...the terrain everything.”
--Louis Pasteur

Assuming the correct drugs are prescribed, the circumstances surrounding each person may affect his or her ability to adhere to a treatment plan. Many factors may be part of this “terrain” and these factors may compete with taking treatment for TB.
It is the responsibility of the case manager to work with the offender to identify barriers to adherence.

These may be patient-related (alcohol dependence), treatment related (length of therapy) or system related (lack of transportation).

Effective case management identifies the terrain and determines an appropriate care plan based on these factors. This is a called a patient-centered approach.

More information about adherence can be found in Module III (Treatment of Latent TB Infection).
Monitoring active TB treatment also includes monitoring the offender for adverse effects.
As is true with many medications, therapy for TB can be associated with some mild or some serious adverse effects.

The health care provider is responsible for assessing the offender’s progress during monthly appointments.

Between those visits, the person administering the TB medications should be attuned to the side effects that the offender is experiencing.

Continued treatment can be managed with simple interventions but serious side effects require changes to the medication plan.

Any changes in the medication plan should be directed by the medical provider.
Both the person taking the medication and the provider must watch for adverse effects to first line therapy which may include any of the following:

- Rash
- Tingling or numbing of hands and or feet
- Persistent fatigue
- Loss of appetite
- Nausea and vomiting
- Abdominal pain
- Bone pain
- Blurred vision
- Changes in red/green color discrimination

Side effects such as minor nausea may resolve with simple approaches such as giving medications with food. More serious reactions such as ongoing abdominal pain may require consultation with a medical provider.
In addition to monitoring the offender for adherence and adverse effects, assessing for response to therapy is important during the treatment plan.
The responsibility for ensuring that a patient is responding to treatment lies with the medical provider.

Therefore it is important that offenders be seen by a medical provider at least monthly to confirm that symptoms are improving, radiologic studies are better, and to confirm that the TB organism is no longer found in sputum samples of persons with TB of the lungs.
The case manager should notify the provider if the offender misses multiple doses of medication, reports significant side effects, or shows signs or symptoms of worsening disease.

This information helps the medical provider decide if it is necessary to change the treatment plan.
In addition to monitoring the status of persons with active TB, the case manager may need to conduct a contact investigation.

A contact investigation is a methodical way to identify contacts of persons with infectious TB.

The goal of the contact investigation is to stop the transmission of TB in the facility by identifying persons who are high priority contacts and by treating as needed.

The contact investigation is typically coordinated with the local public health department.
Information about persons with infectious TB and their contacts, is placed on a Contact Investigation Report.

The LPH agency is in charge of the investigation, and works with the correctional facility to obtain information. Information is used to manage care and follow-up, and to make sure that the approach of the contact investigation is appropriate and timely.

The form is then submitted to the Minnesota Department of Health for data analysis.

More information about contact investigations can be found in Module V.
Next we will talk about Medical Release Planning
Comprehensive medical release planning is another best practice and is very important to effective TB control efforts within the community to which offenders return.
Medical release planning is also called “discharge planning.”

Medical release planning and case management for offenders with suspected or confirmed active TB should begin during detention and should continue after release from the correctional facility.

Correctional facilities and public health departments should be prepared for sudden release or transfer of offenders that requires coordination of follow-up.
Collaboration is an important component of TB control efforts. Local and state public health departments, health care providers, and correctional system partners should join forces to plan release for offenders.

Working together maximizes the effectiveness of efforts started in the correctional facility through continuity of care. This may improve post release adherence and completion of therapy. These collaborative efforts may also reduce recidivism.
Situations requiring comprehensive medical release planning for offenders with active disease include transfer to another facility, release to the community, and moving to custody of Immigration and Customs Enforcement (ICE).
First let’s talk about offenders who are transferred to another facility.
The transfer to another facility should be coordinated with staff members of the receiving facility and the local or state health department.

Most importantly, the discharging facility should communicate with the receiving facility by phone or email.

Availability of airborne isolation should be confirmed if the person with TB is infectious.

Information about directly observed therapy should be discussed with the receiving facility.

Documents should be shared in advance and may be sent with the offender as well.

Local and state public health should be notified about the transfer.
A great number of offenders are released to the community following incarceration.
Management of release to the community should be coordinated with members of the local and state health department.

Most importantly, the correctional facility should communicate with local public health and the Minnesota Department of Health to ensure continuation of treatment and medical follow-up.

It is essential to obtain detailed contact information from the offender in advance of release. This includes information about aliases, anticipated residence and telephone numbers. It also includes contact information for friends or relatives who might know the whereabouts of the released individual.

It is important to plan for other support services in advance of release to help offenders meet basic needs. This might include coordination of substance abuse treatment or scheduling appointments for follow-up medical care in advance of release from the facility.

Documents should be shared in advance with local public health as well.
It is helpful to give community contact information to the offender along with documentation of TB diagnosis and treatment plan.

The offender should be encouraged to save and present documentation whenever receiving services related to TB.
Now let’s talk about offenders who are moved to the care of the Immigrations Customs Enforcement division of the Department of Homeland Security.
Persons detained by ICE are often mobile, may leave and reenter the U.S. while on treatment, and are at risk for interruptions in therapy.

Because of the risk for breaks in the medication plan, it is helpful to communicate with detention facilities and with public health partners to ensure continuity of care and completion of therapy.
Release to ICE custody should be coordinated with members of ICE and the public health department.

ICE detainees should be identified when initially reporting TB cases to public health.

ICE detainees with confirmed or suspected active TB may receive treatment while in ICE custody, and may be deported prior to treatment completion.

ICE does not deport detainees with known infectious disease, and may consider a stay of removal if a person has very complicated TB.
Documents should be shared in advance with the receiving detention facility and public health.

Please remember to notify the MDH TB Program if a detainee is being deported.

Collaboration between detention facilities and health departments facilitates enrollment in programs that ensure continuity of care between countries. These programs include CureTB, TBNet and the U.S. Mexico Binational TB Referral Project.
Let’s talk for a moment about the Minnesota Department of Health TB Medication Program.

TB medications are available for treatment of persons with active TB and latent TB infection. These medications are free of charge for Minnesota residents and are available while persons are incarcerated and after release.

Typically the medications are sent on a monthly basis directly to the correctional facility or to local public health. It is important to coordinate the medication plan with local public health especially close to the time of release.

Local public health may use incentives or enablers in addition to the free medications to help with adherence following discharge from the correctional facility.

Additional information about the MDH Medication Program is available at the website address listed on this slide.
The medical release planning process is crucial to successful control of TB in our communities.

It is essential to evaluate the process on an ongoing basis and to make changes as needed to improve outcomes.
We will now present a case study to illustrate some of the key points covered in this module.
In this situation, a 24-year-old male is admitted to a local jail.

According to usual protocol, the staff performs a brief screening by asking the offender about TB symptoms. The individual denies TB symptoms but reports exposure to an inmate with active TB 6 months prior, while incarcerated at another facility.

Unfortunately, the individual being questioned does not remember details about testing for TB and this exposure.
The person asking the offender about TB symptoms, recognizes that this offender has multiple risk factors for TB infection or disease. What do you think those risk factors are?
This person’s previous history of incarceration puts him at greater risk for exposure to TB. TB occurs more often in correctional facilities than in the general public.

TB transmission still sometimes occurs in correctional facilities and outbreaks of TB are reported in the United States every year.

In addition, he admits to recent exposure to another inmate with infectious TB. He is not able to report detailed information about TB screening for this exposure. Without this information, it is more difficult to make a plan.

But we know that if he is infected with TB and does not complete treatment for LTBI, he has a 10% chance of developing active TB at some point during his life. If he has HIV or other medical conditions, he has an even greater risk of developing active TB.
So knowing his risk for developing active TB if infected, what is your next step?
The next step is for a nurse in the medical unit to contact the Minnesota Department of Health TB Program.

If an offender has been exposed to active TB while incarcerated, the TB Program might have information about the contact investigation and may be able to share that information.

If the information is not available, staff at the MDH TB Program can provide guidance for handling this situation.

In this particular situation, MDH is able to confirm the offender’s story about exposure to active TB.
Fortunately, you are able to obtain information about this offender’s evaluation. During his initial post-exposure evaluation he had a positive TST which was a conversion from a previous negative test result. This conversion indicates recent exposure to someone with active TB and confirms presence of latent TB infection.

This offender’s X-ray was normal and he was prescribed treatment for latent TB infection. He was released to the community after taking 5 days of INH and was given a bottle of medication.
Questions
So with this information, what is your next step while admitting this person to your facility?
The next step is to arrange for a chest X-ray. This offender recently acquired latent TB infection. The offender admits to discarding his bottle of INH, did not complete LTBI therapy, and is at risk for developing active TB.

His chest X-ray is read as abnormal, consistent with active TB...a clear change from the X-ray taken 6 months earlier.
Active TB: Case Study (9)

- What is the next step?

So now what do you do?
Since you are not sure whether the offender is infectious to others, you need to initiate airborne isolation precautions. The offender may need to be moved to a facility with AII or to a hospital where he will receive a medical evaluation including sputum samples.

You will want to formally report this person to the MDH TB Program as a suspected case of TB.

Staff at the MDH TB Program can provide guidance and answer questions about management of the patient and exposure to other persons working or staying at the correctional facility.
Sputum samples are smear positive for acid fast bacilli indicating that this offender may be infectious to others. *M. tuberculosis* is identified through rapid testing and the individual starts treatment for active TB.

Eventually, lab results confirm the same TB strain to that of the person to which this offender was exposed in the other facility. This means that transmission likely occurred between these two individuals.
Now that you have confirmation of infectious active TB in this person, what are your next steps?
It is important that there are ongoing discussions between corrections and public health partners.

Once it is determined that this person has pulmonary TB, corrections will need to work with local public health to start the contact investigation.

Noted previously, they also need to start medical release planning in advance of the offender’s return to the correctional facility or release to the community.
In response to this TB exposure, correctional facility staff works with state and county health departments to plan and implement an investigation to identify others who have been exposed to this individual and to ensure that they are tested for TB.

Upon questioning, the offender states that he lives with 6 individuals including his mother, girlfriend, son, and 3 other adults. He works periodically with a lawn service and spends most of his free time “hanging out” with his 3 buddies.

In addition, other offenders and employees were exposed to this individual in the holding area during booking.
The health department was responsible for locating and testing family and friends outside of the correctional facility. The contact investigation revealed that one-half of this individual’s household members became infected as a result of being exposed to him before he was incarcerated.

Testing also indicated that there was no evidence of transmission from this case to employees and offenders during the relatively brief time required for booking.
We presented this case study as an example to illustrate the critical need for correctional facilities to have adequate TB control strategies in place.

Key points to keep in mind include:

Symptom screen should be offered to offenders upon entry to the correctional facility. Patients do not always present with typical symptoms of cough, weight loss, and night sweats but may develop them after admission to the facility.

During the symptom review, it may be necessary to ask questions in a variety of ways to elicit accurate information about past TB exposure and current symptoms. It is important for staff to pursue TB history even if an offender denies symptoms.

Consult the state health department if you have an offender with symptoms of active TB or have questions about previous treatment. In addition, TB Program staff at MDH can provide valuable assistance to you.
In addition you should keep in mind that:

The airborne isolation protocol should be followed for offenders who demonstrate symptoms of TB during a symptom screen.

Rapid diagnosis of TB is essential for persons in any congregate setting because of implications for individuals who may have been exposed.

Clear and accessible documentation of daily activities of offenders is useful to determine which offenders had significant contact with the initial source case of TB.
To summarize this presentation, I’d like to review a few key points:

Certain types of TB are transmissible and if untreated, put others at risk.

The goals of active TB treatment are to cure TB and to stop transmission of TB.

Offenders with signs or symptoms of active TB should be isolated immediately and evaluated promptly.

Correctional facilities should report suspected or confirmed cases of active TB to MDH.

To summarize this presentation, I’d like to review a few key points:

Certain types of TB are transmissible and if untreated, put others at risk.

The goals of active TB treatment are to cure TB and to stop transmission of TB.

Offenders with signs or symptoms of active TB should be isolated immediately, and evaluated promptly to prevent transmission.

Correctional facilities should report suspected or confirmed cases of active TB to MDH. The staff at the MDH TB Program can provide guidance for handling situations related to TB.
Basic principles of treating active TB include giving multiple drugs over the shortest time possible with the support of DOT and monitoring.

Correctional facilities should work with outside partners to ensure continuity of care for active TB cases before release from the facility.

And finally, be proactive in working with your state and local public health departments as they can assist with managing active TB cases and contact investigations.
The information contained in this module is based for the most part on a number of resources from the CDC.
Our primary resource was published in 2006 and is titled: “Prevention and Control of Tuberculosis in Correctional Facilities: Recommendations from CDC.”

This document can be downloaded from the website listed on this slide.
Another resource that contains some information pertinent to correctional facilities was published in 2005 and is titled: “Guidelines for Preventing the Transmission of *Mycobacterium tuberculosis* in Health-Care Settings.”

This document can also be downloaded from CDC’s website.
A third resource contains information pertinent to treatment of active TB, was published in 2003 and is titled: “Treatment of Tuberculosis.”

This document can also be downloaded from CDC’s website.
CDC also can supply you with an educational poster called “Think TB!”

These can be ordered at no cost from the CDC’s web site.

Order:
The Stop TB poster describes how TB is spread and the difference between latent TB infection and TB disease. It is available in both English and Spanish and can be ordered at no cost from the CDC website.
You may also find the Minnesota Department of Health TB patient education fact sheets useful. They are available in English and 15 other languages and can be downloaded from MDH’s website.
The web address for Minnesota Department of Corrections is [www.doc.state.mn.us](http://www.doc.state.mn.us) and the address for MDH’s TB Program is [www.health.state.mn.us/tb](http://www.health.state.mn.us/tb). The home page for CDC’s TB pages is [www.cdc.gov/tb](http://www.cdc.gov/tb).
Continuing Education Credits

- To obtain continuing education credits or a certificate of participation, complete a short evaluation at www.health.state.mn.us/divs/idepc/diseases/tb/rules/correctmod.html

- Questions can be directed to Beth Kingdon at 651-201-5529 or Elisabeth.Kingdon@state.mn.us

If you are interested in obtaining a certificate of participation that includes nursing credits, please go to the web address listed on this slide. After completing a brief evaluation, you will be directed to your certificate.

We appreciate your honest feedback about this webinar.

Questions about obtaining your certificate should be directed to Beth Kingdon at MDH’s TB Program. Her contact information is noted on this slide.
The MDH TB Program extends its thanks and gratitude to the Minnesota Department of Corrections, local public health agencies throughout Minnesota, and the Correctional Health Division of the Minnesota Sheriffs’ Association for their assistance in creating this webinar.
I’d like to close by sincerely thanking you for the work you do every day to help prevent and control TB in Minnesota.