



USAID | **GEORGIA**
FROM THE AMERICAN PEOPLE

TUBERCULOSIS
PREVENTION
PROJECT



Tuberculosis (TB) prevention in high risk-groups and psycho-social support of patient

*Training Course for Georgian Harm Reduction
Network*

http://tpp.ge/Training_materials/m49#.URPBRW9n_eo



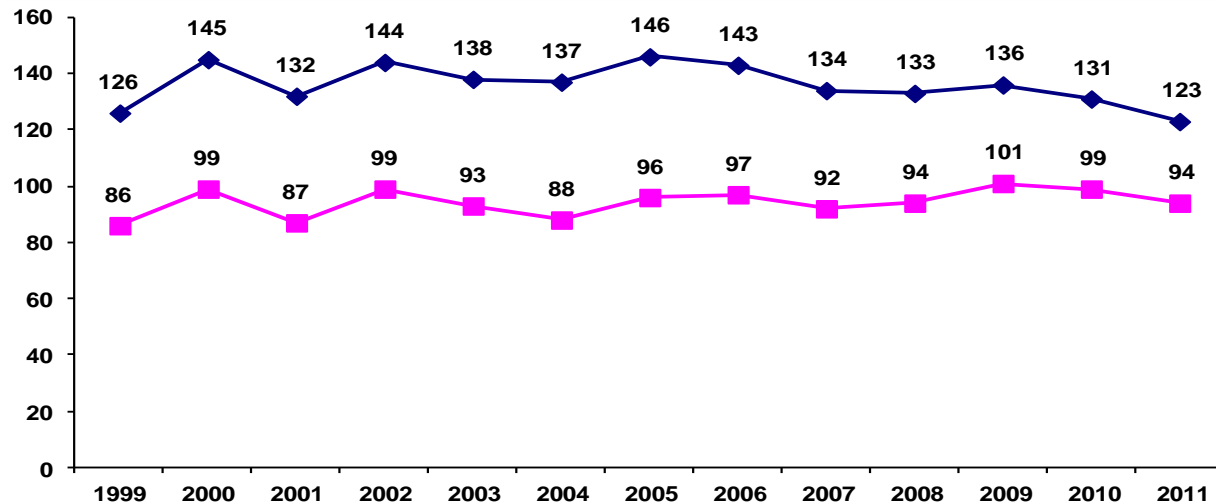
Module 1:

Get the facts about TB and Its Prevention – Why IDUs are at high risk to be affected by TB .

TB continuous to be World –wide problem

5500-6000 patients with active TB are registered in Georgia every year

Registered TB Cases in Georgia (per 100 000 population)



- ✓ HIV/TB co-infection;
- ✓ M/XDR-TB treatment;

Is still a huge problem for the majority of countries worldwide

TB is an infectious diseases

- ✓ TB *predominantly* spreads from person to person through the air via droplet nuclei;
- ✓ TB bacteria is expelled when an infectious person (*AFB positive, pulmonary TB patient*):
 - Coughs;
 - Sneezes;
 - Speaks;
 - Laughs;
 - Sings;
- ✓ TB transmission occurs when another person inhales droplet nuclei containing TB bacteria;



TB is an infectious diseases

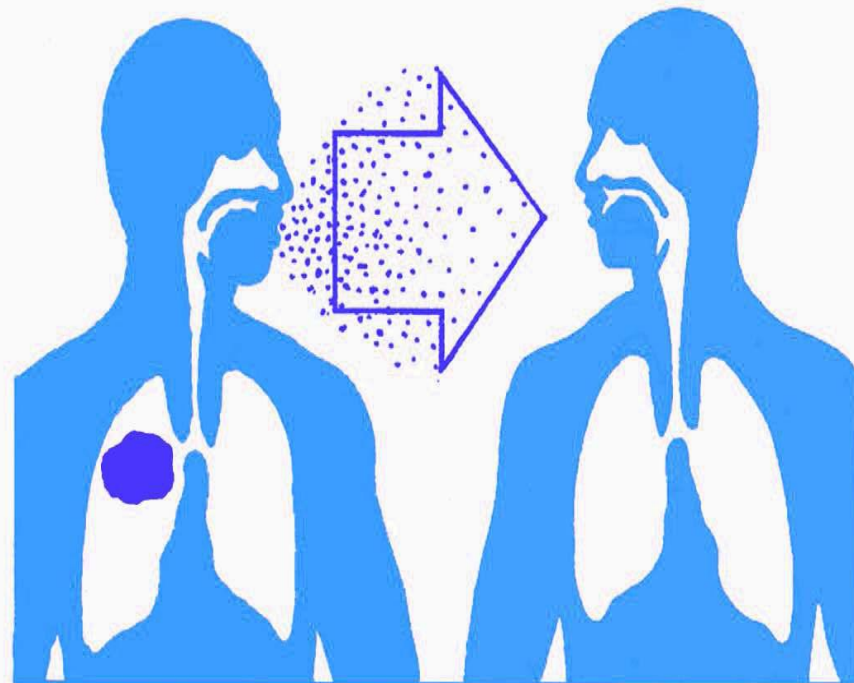
Person, who has inhaled droplet nuclei may be affected by TB

✓ Latent TB infection (LTBI)

Or

✓ Active TB diseases
may develop

*AFB negative TB patient
is not infectious*



TB predominantly spreads through the air

TB cannot be transmitted by:

- ✓ Kissing;
- ✓ Handshakes;
- ✓ Sitting on toilet seats;
- ✓ Sharing dishes and utensils with someone who has TB.

Risks of LTBI and active TB

Risk of developing LTBI or active TB depends on who inhaled droplet nuclei containing TB bacteria and where it was inhaled

Risk is high:

- ✓ In closed and crowded environment with poor ventilation and oxygenation;
- ✓ Individuals at TB high risk-groups

Risk-groups of LTBI and active TB

Anyone can get TB, but some people are at higher risk:

- ✓ Close contacts of a person with infectious TB;
- ✓ *HIV infected individuals*;
- ✓ *Drug and alcohol users*;
- ✓ Tobacco users;
- ✓ Patients with diabetes mellitus, gastric or duodenal ulcer;
- ✓ Immunosuppressed persons on prolonged corticosteroid therapy or taking tumor necrosis factor blockers;
- ✓ Patients with mental disorders;
- ✓ Persons with history of active TB;
- ✓ Prisoners and ex-prisoners;
- ✓ Socially vulnerable populations, such as homeless, unemployed refugees or migrants.

TB risk in IDUs

- ✓ The host immune response to TB bacteria plays the major role in development of TB;
- ✓ The risk of TB is higher when the immunity is lower;
- ✓ The immunity of the drug users, especially injecting drug users is weakened and cannot fight TB bacteria in the body – *low immune response of IDUs increases risk of TB;*

TB risks in IDUs

Risk of developing TB is higher for IDUs who have:

- ✓ HIV/AIDS;
- ✓ Alcohol abuse;
- ✓ Malnutrition;
- ✓ Unsatisfactory living conditions (homeless, refugees and etc);

TB prevention

- ✓ The best way for TB prevention in vulnerable groups is to avoid TB risk-factors;
- ✓ IDUs should avoid contact with infectious TB patients, especially prolonged contact in closed environment with poor ventilation;
- ✓ The lifetime risk of developing TB will decrease if IDU will be able to stop using drugs and alcohol;

Quality counseling will help to improve the knowledge and change attitudes of IDUs

TB prevention

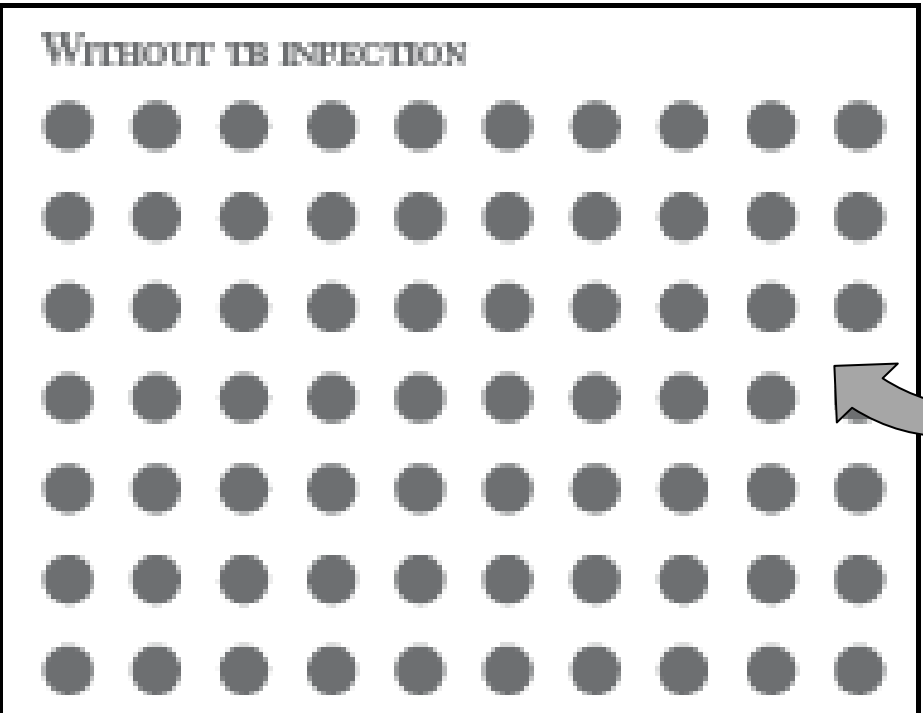
- ✓ The best way to prevent TB at community level is to ensure natural ventilation of closed places;
- ✓ Natural ventilation relies on open doors and windows to bring in fresh air from the outside;
- ✓ Make sure that doors and windows are maintained in an open position and enhance correct ventilation, especially if IDU and person with cough are in room together;

LTBI and Active TB

- ✓ LTBI may be developed in 1/3 of people exposed to TB;
 - ✓ Active TB may be developed in 10% of people with LTBI;
 - ✓ Decreased immunity, related to drug abuse is the risk-factor that influences the progression of LTBI to active TB and it may happen in two different ways:
 - Person with LTBI, who started using drugs may be affected by active TB;
- or
- Active TB may be developed in IDU, who became infected with TB after he/she begun using drugs;

LTBI and Active TB

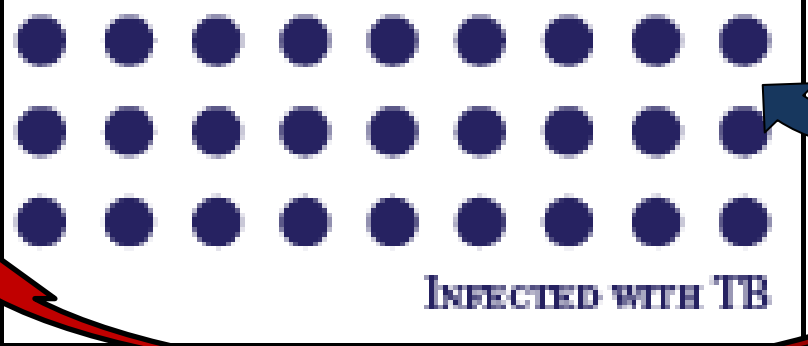
PEOPLE EXPOSED TO TB



Healthy

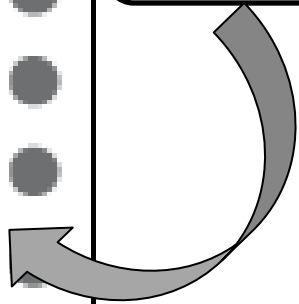
LTBI

TB DISEASE
(IN THEIR
LIFETIME)



Active TB

INFECTED WITH TB



LTBI and Active TB

LTBI

DRUG ABUSE

TB

or

DRUG ABUSE

LTBI

TB

LTBI and Active TB -Similarities and differences

LTBI	TB
Inactive, latent TB bacteria in the body;	Active, multiplying TB bacteria in the body;
Person is not sick;	Person is sick;
Not infectious;	Often Infectious before treatment [if AFB (+)];
No TB symptoms;	One or more TB symptoms (such as cough, fever, weight loss) are presented
TST result usually positive, smear negative, X-ray normal;	TST result usually positive, smear and culture may be positive, X-ray usually abnormal;
Needs treatment in some cases, (for example if HIV positive);	Needs treatment in all cases;

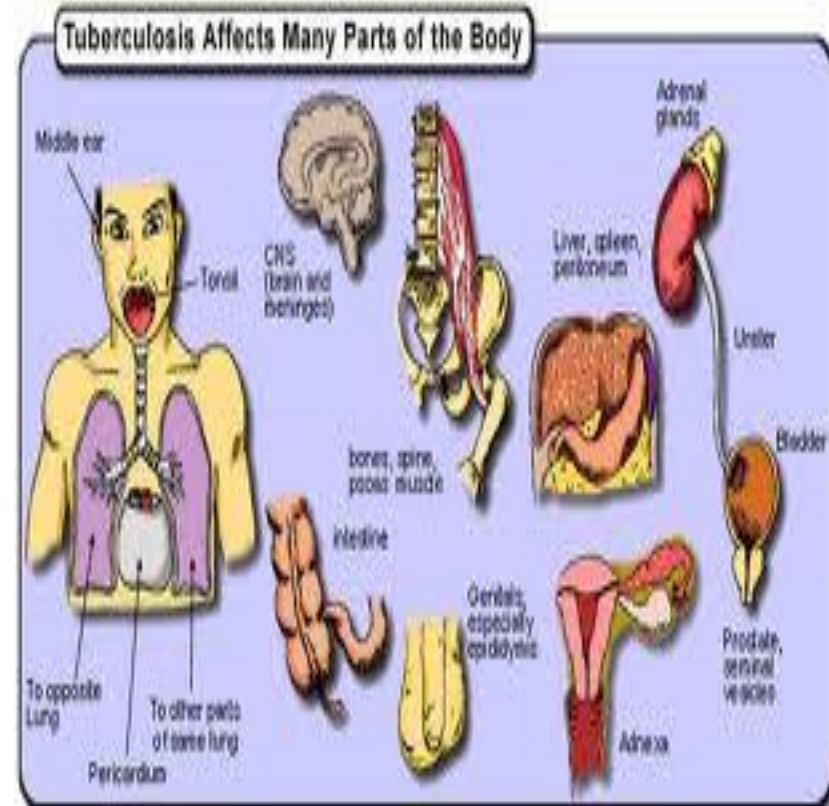
TB can affect any parts of the body

TB most commonly affects the lungs and it's called pulmonary TB;

When the infection occurs in other parts of the body it's called Extra pulmonary TB (EPTB);

Most common sites of EPTB are:

- Genital and Urinary tracts;
- Bones and Joints;
- Central Neural system;
- Pleura;
- Lymph nodes;
- Or any other organs.



TB testing and treatment is free

In Georgia in- and out-patient treatment is free for all registered TB patients

- ✓ All regions of country have TB units, where testing of TB suspect cases and treatment of active TB cases is free;
- ✓ Collaboration between local TB units and NGOs can improve prevention, early detection and psycho-social support of TB in vulnerable groups at community levels;

Contact information of country-wide TB units is attached as printed version

TB is curable if treated properly

- ✓ TB is curable if patient takes medication correctly for the full duration of treatment as prescribed by TB physician;
- ✓ untreated or inadequately treated TB allows the surviving TB bacteria to cause the patient to become ill and infectious again;
- ✓ If TB treatment is non standard or interrupted drug resistant TB can be developed;
- ✓ Treatment of drug resistant TB, especially MDR and XDR-TB is often less effective and more likely to cause side effects;

TB can be fatal if it is not treated or treated inadequately

Case discussion (1)

It is more than ten years since I have drug addiction. I have tried to stop several times but I couldn't. I try hard not to be infected by other diseases. I know how to protect myself from HIV infection, Viral Hepatitis and Sexually Transmitted Diseases and fortunately I manage to prevent those diseases. But I don't know much about tuberculosis. I have two neighbors, father and son, who have tuberculosis. Two or three times both of them were treated in TB hospital. Sometimes, but not often I have contact with them.

I don't know how dangerous the tuberculosis is for me, also I don't know what to do for prevention.

What are your suggestions?





Module 2:

Recognize TB symptoms and detect TB suspects among IDUs

TB Symptoms

Symptoms of Pulmonary TB Disease:

- ✓ Cough with or without sputum production, prolonged 2 or more weeks;
- ✓ Coughing up blood (hemoptysis);
- ✓ Chest pain;
- ✓ *Breathing difficulty;*
- ✓ Fever;*
- ✓ Fatigue;*
- ✓ Loss of appetite;*
- ✓ Unexplained weight loss;*
- ✓ Night sweats;*

*Symptoms are similar for Pulmonary and Extra pulmonary TB

TB Symptoms

Symptoms of Extra pulmonary TB Disease (depends on the part of the body that is affected by the disease):

- ✓ TB of the kidney may cause blood in the urine;
- ✓ TB meningitis may cause headache or confusion;
- ✓ TB of the spine may cause back pain;
- ✓ TB of the larynx can cause hoarseness;
- ✓ Fever;*
- ✓ Fatigue;*
- ✓ Loss of appetite;*
- ✓ Unexplained weight loss;*
- ✓ Night sweats;*

Most persons with TB have only 1-3 TB symptoms

*Symptoms are similar for Pulmonary and Extra pulmonary TB

Early detection of TB

Drug abuse is the high risk of developing TB and every IDU with one or more TB symptoms should be suspected on TB

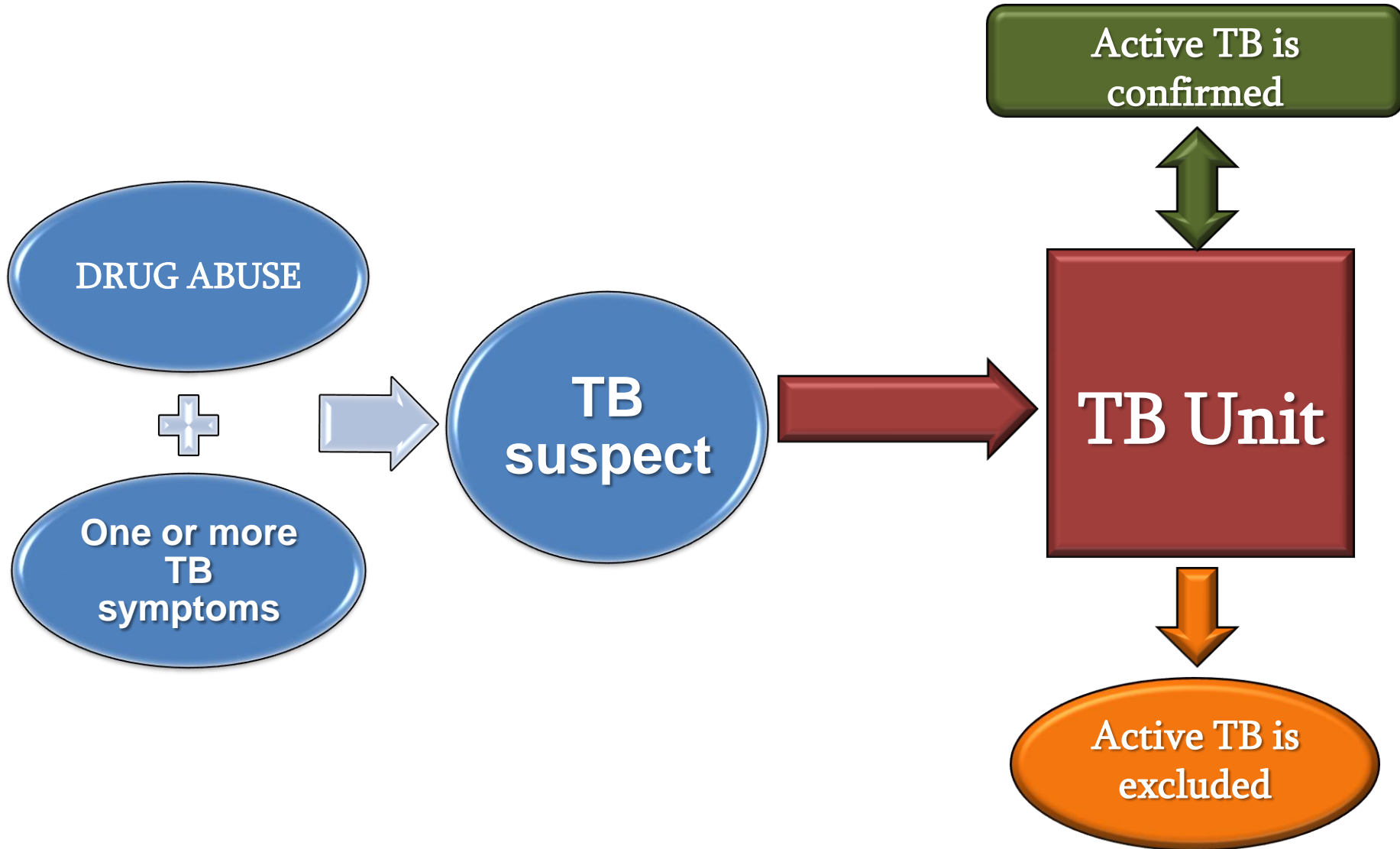
IDU with one or more TB symptoms should be:

- ✓ Defined as TB suspect case;
- ✓ Referred immediately to the nearest TB unit;
- ✓ Medically evaluated for confirmation or exclusion of active TB;

Early detection of TB

- ✓ Minimum smear examination and X-ray should be provided in TB unit for confirmation or exclusion of TB diseases;
- ✓ Not in all IDUs with one or more TB symptoms active TB diseases will be confirmed;
- ✓ Diagnosis of TB suspect cases is responsibility of TB physicians and free within TB network;

Early detection of TB



Case discussion (2)

VCT consultant noted that injecting drug user had permanent cough during counseling sessions. VCT consultant asked beneficiary several questions: *How long he has been coughing? If he is coughing up blood? If he has chest pain? If he has a fever, fatigue, night sweats? If he has lost appetite and weight lately?*

Beneficiary answered, that it is about a month he's been coughing, sometimes has a fever and gets sweaty while sleeping.

What should VCT consultant suggest?





Module 3:

**Benefits of timely referral of drug users with TB symptoms to TB facilities –
Why detection of TB at early stages is important for patients and their contacts**

Timely referral to TB facilities

Timely referral of IDUs with TB symptoms to TB facilities is critical for:

- ✓ Timely diagnosis of TB;
- ✓ Timely initiation of proper TB treatment;
- ✓ Prevention of TB transmission to persons in contact;

Delay in diagnosis results in increased severity, mortality and transmission of TB

Importance of standard TB treatment

Without TB treatment:

- ✓ Health condition of TB patients will not improve;
- ✓ Infectious patient continues to infect family members, friends and other contact persons;
- ✓ One AFB(+) TB patient can infect up to 10-15 other people through close contact over the year and *this risk is higher for contact person from TB risk-group;*

Only standard TB treatment can stop TB transmission and ensure successful outcome

Importance of standard TB treatment

- ✓ Without collaboration and coordination within TB network quality diagnosis, proper, uninterrupted treatment, infection control and monitoring of TB is impossible;
- ✓ Chance to cure TB is very low without special drug susceptibility testing (DST), directly observed treatment (DOT) and uninterrupted drug supply;
- ✓ Self treatment is the major risk of developing M/XDR-TB;
- ✓ TB is treatable and curable only based on standard TB diagnosis, appropriate supervision and support;

Additional benefits of TB network

In TB facilities:

- ✓ Treatment is confidential;
- ✓ Patients with good adherence to TB treatment receive incentives such as:
 - Transport;
 - Food vouchers;

Psychological support is ensured only in several TB facilities; *involvement of community and local NGOs in psycho-social support of TB patients, especially for patients from vulnerable groups is critical*

Case discussion (3)

Regional coordinator of GHRN from Samegrelo knows that, one of his beneficiaries had TB and was treated in the past. Recently, coordinator identify that beneficiary coughs and has lost some weight. He is a very communicative person, he is a leader and spends much time with other beneficiaries.

Coordinator asked social worker to talk with beneficiary and suggest him to go to TB facility, but beneficiary said that he knows what is wrong with him, he knows the doses of TB drugs very well and when he feels ill he receives the drugs without any problems.

What should coordinator do in this case?





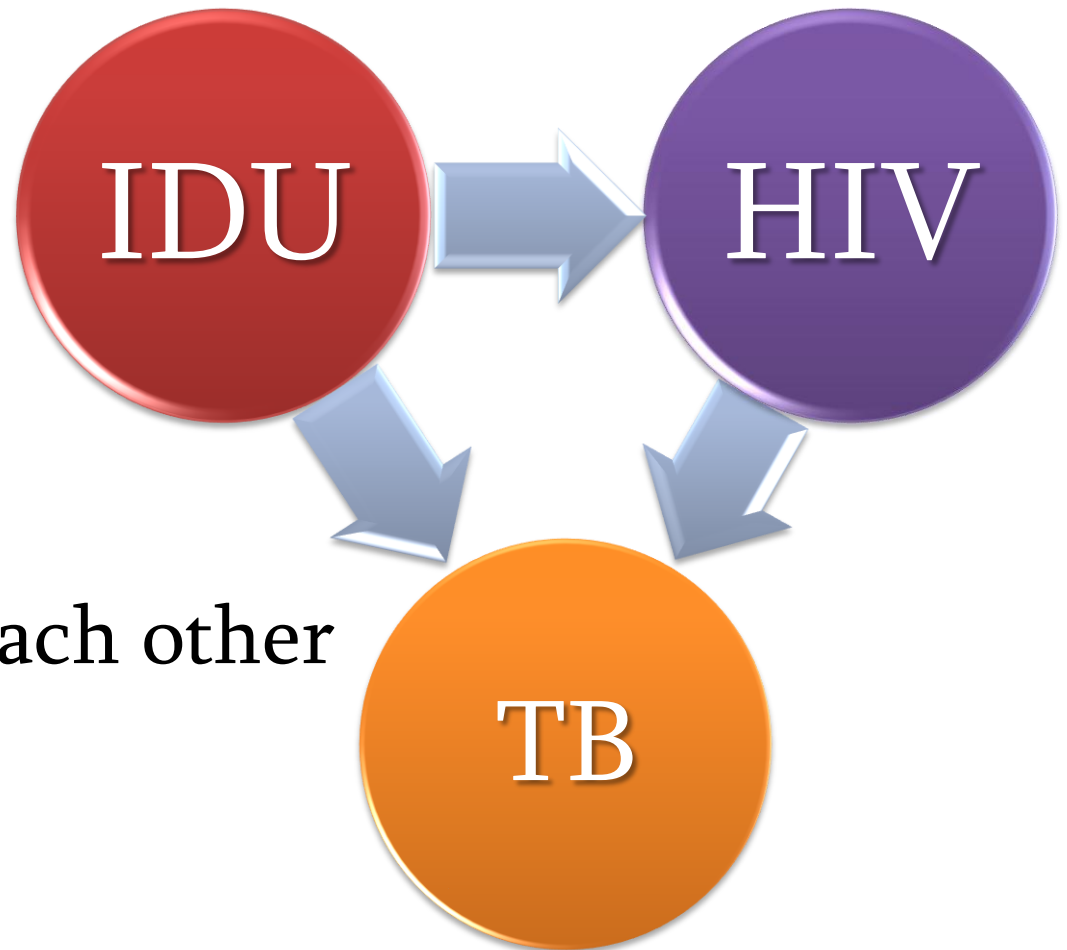
Module 4:

**TB associated HIV infection in drug users is three challenges in one -
Take steps to control TB when you have HIV**

Three challenges in one

- ✓ *Drug abuse;*
- ✓ *HIV;*
- ✓ *TB;*

are associated with each other



Three challenges in one

- ✓ PLWH 21-34 times more likely to develop active TB disease than people who are HIV negative;
- ✓ TB is still a leading killer of people living with HIV, with a quarter of all HIV deaths found to be TB-related:

TB/HIV 2011	Georgia, Country profile, WHO	Number	(%)
	TB patients with known HIV status	2 550	(46)
	HIV-positive TB patients	50	(2)
	HIV-positive TB patients on co-trimoxazole preventive therapy (CPT)	28	(56)
	HIV-positive TB patients on antiretroviral therapy (ART)	38	(76)
	HIV-positive people screened for TB	387	
	HIV-positive people provided with IPT	61	

From April 2008 to March 2011 in Georgia:

- ✓ TB was diagnosed in 285 [57.2% (from 498 TB suspected)] IDUs;
- ✓ From whom 189 (66.3%) IDU had Pulmonary and 96 (33.7%) Extrapulmonary TB.

Three challenges in one

Injecting drug use

- ✓ Is the high risk of blood transmission of HIV infection;
- ✓ Reduces immune response and increases risk of developing TB;

HIV infection

- ✓ Reduces immune response of body and increases risk of developing TB *too*;

Three challenges in one

Injecting drug use and HIV infection separately and simultaneously are the risks of developing TB

IDUs can be affected by TB, but risk of developing TB is much more higher for IDUs with HIV infection

HIV and LTBI

If HIV infected person has TB infection:

- ✓ TB bacteria is inactive and exists as latent form in the body;
- ✓ Person is not sick;
- ✓ Not infectious;

But !!!

- ✓ HIV-related weakened immune response increases risk of reactivation of LTBI and development of TB diseases;
- ✓ That's why all HIV positive persons with LTBI must be treated by Isoniazid Preventive Therapy (IPT);

HIV and LTBI

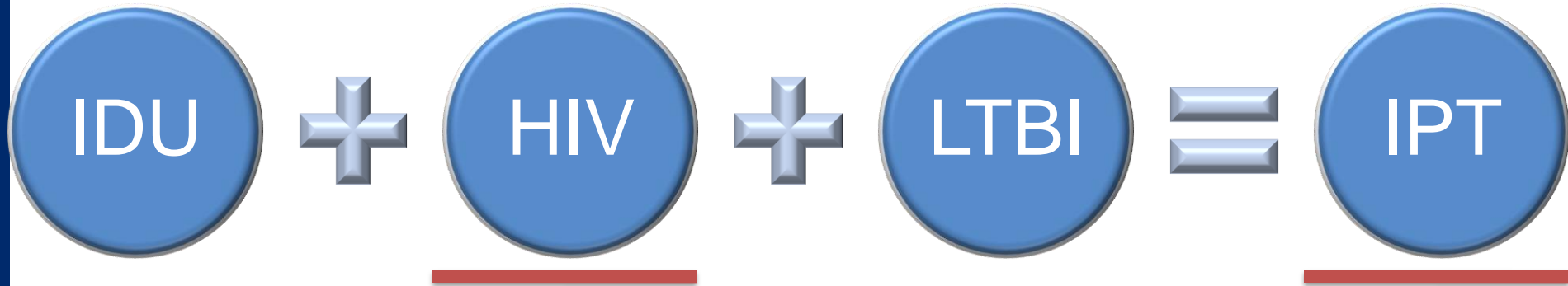
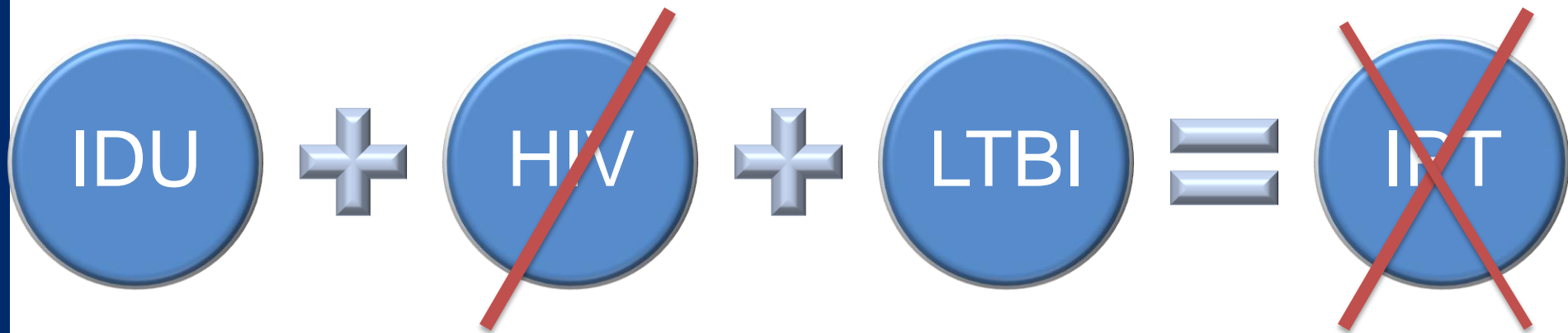
- ✓ Tuberculin Skin Testing (TST) is the method for diagnosis of LTBI;
- ✓ LTBI is diagnosed if TST is positive and based on the results of additional examinations active TB diseases is excluded;



IDU, HIV and LTBI

- ✓ After excluding active TB in IDUs with positive TST, LTBI is diagnosed but in Georgia IPT is not used in IDUs;
- ✓ For all HIV positive persons, including IDUs, TST is necessary; if TST result is positive and active TB is excluded, *LTBI in HIV infected IDU is diagnosed and IPT must be provided;*

IDU, HIV, LTBI and IPT



Without IPT all HIV positive persons , including HIV infected IDUs , are at high risk of developing TB and death

IDU, HIV, TB and TB/ART treatment

- ✓ HIV infected IDU with active TB diseases must receive ART and anti TB treatment simultaneously;
- ✓ Despite of toxicity, ART and anti TB treatment must not be interrupted;
- ✓ Management of side effects of ART and TB drugs is possible with support of physicians;

Without treatment TB/HIV co-infection is lethal



Case discussion (4)

IDU was tested on HIV infection and test result was positive. As HIV infected person he was tested on LTBI, TST result was positive as well. IDU was referred to the nearest TB unit, where he got bacterioscopy and X-ray. Based on these examinations active TB was excluded and LTBI was diagnosed. TB physician recommends IPT, but patient does not want to receive treatment.

IDU stated: *“I don’t understand anything, firstly they injected something in my hand, then they told me to go to the TB unit, where I was examined. After examination I was informed that I have no TB diseases, but now doctor prescribed treatment with one of the TB drug for six month. I really don’t understand anything, if I have no TB diseases, why should I drink this drug?”*

What kind of information is needed for IDU?





Module 5:

Psycho-social support for drug users with active TB at community level – How to avoid treatment default among IDUs

Psycho-social support of IDUs at the community level

During TB treatment period the psycho-emotional condition and behavior of IDUs need a special daily psycho-social support. This can be best ensured by coordinators, consultants, outreach social workers and beneficiaries of NGOs, who are in regular and close contacts with IDUs at the community level



Psycho-social support of IDUs at community level

What problems may IDUs face during the TB treatment?

(1)

1. If IDU with active TB is AFB(+), he/she is infectious and should be isolated from contacts - *Necessity of isolation damages psycho-emotional status of IDUs;*

How can we help IDUs to solve this problem? (1)

1. We should explain to patient and his family members, that full, 24 hour isolation is not necessary, *It is necessary to follow several rules;*

Psycho-social support of IDUs at community level

Necessary rules (1):

- ✓ Infectious patient shall sleep in separate bedroom;
- ✓ When infectious IDU coughs or sneezes, he/she should use tissues or handkerchiefs, which should be disposed after using in a bin straight away;
- ✓ When infectious IDU speaks, watches TV or eats in the room with other persons, he/she should use surgical mask, which should be changed as frequently, as possible;

Psycho-social support of IDUs at community level

Necessary rules (2):

- ✓ Patients' room should be as sunny and ventilated as possible (considering the local climatic conditions);
- ✓ Window and doors in patients' room should be kept in open position as frequently as possible;
- ✓ Be sure that natural ventilation is correct and takes contaminated air from room to outside, not contrary;

This rule must be followed as long as patient is infectious;

Generally, after 2 – 4 weeks of correct TB treatment AFB(+) patient becomes AFB(-) and does not need isolation

Psycho-social support of IDUs at community level

What problems may IDUs face during the TB treatment? (2)

2. TB treatment is long; During minimum 6 months patient should receive TB drugs daily (intensive phase) or 3 times in week (intermediate phase); This is ensured by directly observed treatment (DOT), for which patient should visit TB facility;

How can we help IDUs to address this problem? (2)

2. We should explain to patient that for successful treatment outcome it is necessary to follow certain approach that includes duration, drugs and regimen; If frequent visits in TB facility is a problem, try to use patient centered approach - talk with patient and identify reasons of personal problems, choose with the patient the most convenient time and place for DOT;

Psycho-social support of IDUs at community level

What problems may IDUs face during the TB treatment? (3)

3. TB drugs are toxic and may have serious side effects; For example, nausea, vomiting, headache or insomnia may occur during the treatment. Patient who had only fever, cough and weight loss before starting the treatment may decide to stop TB treatment;

How can we help IDUs to solve this problem? (3)

3. We should explain to patient, that manifestation of side effects was expectable and if you inform TB physician, he/she can manage them; If you stop treatment you will feel sick, stay infectious long time and you may become ill with MDR-TB, treatment of which is longer, more toxic and less effective;

Psycho-social support of IDUs at community level

What problems may IDUs face during the TB treatment?
(4)

4. Because of the long, toxic TB treatment, constant fear to have TB again and again despite of treatment, IDU can lose hope in life;

How can we help IDUs to solve this problem? (4)

4. We should explain to patients that many depends on them; If he/she finishes appropriate treatment and after treatment will be able to avoid any TB risk-factors, he/she will have a big chance to never be affected by TB;
If not so, he/she knows TB symptoms and if they occur in the future, he/she must visit TB facility immediately;

Psycho-social support of IDUs at community level

During the visits with IDUs often underline following:

- ✓ Receive TB drugs as prescribed by TB physician;
- ✓ Only these drugs can help you to fight TB;
- ✓ If you feel good, but your treatment is not finished yet, do not stop it; Complete TB treatment is critical;
- ✓ If you have any side-effects, inform TB physician about them, they can help you;



USAID | **GEORGIA**
FROM THE AMERICAN PEOPLE

TUBERCULOSIS
PREVENTION
PROJECT

Module 6:

**Protect family members and friends
of IDUs with active TB**

Inform family members and friends of IDUs with active TB

- ✓ Its hard to reveal that you have TB;
- ✓ You are afraid that you will be rejected, everyone will avoid contact with you;
- ✓ You already have problems with your family because of drug addiction and now, if they will find out that you also have TB, they will not want to live with you;
- ✓ It hard to realize that your child or mother can be infected by TB because of you and to be afraid of this all the time;

What you should do? You have to talk to them, explain everything and protect all of you or hide this information from everybody.....

Inform and protect family members and friends of IDUs

Correctly provided information to your family and close friends will help you and your relatives :

- ✓ In timely examination of all persons who are in close contact with you;
- ✓ In timely initiation of there treatment (if necessary);
- ✓ It will be available to follow the rules for preventing of TB (go back to slides 48 and 49);

Anyone can be affected by TB, nobody knows who will be the first

Case discussion (5)

IDU was informed that he has active TB and he is infectious. TB physician said that any person who are in close contact with him must be tested, *but patient doesn't want to reveal his disease and does nothing to inform and get his family members tested. At TB facility he was explained, that as long as he is infectious he must follow special rules and protect family members, but as long as he doesn't disclose his disease, he can't wear surgical mask at home, he can't open windows frequently in the rooms and also he can't explain to his wife, that he must be isolated far from children in separate bedroom.*

TB physician asked for help of outreach social worker of GHRN, who has routine contact with IDU.

How can social worker help IDU?





Module 7:

**Identify causes of TB related stigma
in your community**

TB stigma

- ✓ TB stigma is more or less typical for all countries and all social groups;
- ✓ The main reason of TB stigma is the air borne transmission of TB bacteria;
- ✓ Patients are ashamed, afraid and usually hiding TB diagnosis because this diseases causes problems not only for patient but also to all their contact persons;
- ✓ It is dangerous to breath the air where infectious TB patient has coughed, sneezed, talked, singed and even laughed as infected patient spreads TB bacteria. Such contact with family members and friends is unavoidable;
- ✓ TB needs everyday direct treatment during the minimum 6 or 18 months, which causes problems, especially in period of studying or working;

How to fight TB related stigma

It is effective to use patient-centered approach to fight TB related stigma, which means:

- ✓ To identify stigma causing individual problems in cases of each patient;
- ✓ To choose the best ways of problem solving together with patient;
- ✓ To solve problems consecutively, together with patient, his family and community members;

Community and specific groups in community must be considered while fighting
TB stigma

How to fight TB related stigma

While fighting TB stigma it is important to deliver right messages to:

- ✓ Patients;
- ✓ Family members and friends;
- ✓ Community members;

Easily understandable and memorable messages can help to fight TB stigma

How to fight TB related stigma

For example you can use following messages:

- ✓ TB is preventable and curable;
- ✓ TB is a disease, diseases are curable;
- ✓ TB is not shameful, anyone can be affected by TB;
- ✓ Keep your immunity strong and it will protect you from TB;
- ✓ Go to the TB facility if you have any TB symptoms, TB physician can help you;
- ✓ Infectious is untreated TB, take care and you will not be infectious;

How to fight TB related stigma

- ✓ Follow the rules which decreases the risk of spreading TB and you will protect your friends;
- ✓ Do not reject TB patients, some day you can take their place;
- ✓ Together we can fight TB fair;
- ✓ Take TB drugs as prescribed and you will fight TB;
- ✓ If you will fight TB you will be able to fight many other problems;

How to fight TB related stigma

What are your suggestions to
your beneficiary or friend
for fighting TB?

Questions - Discussion

