

HIV testing for life...

HIV testing for all tuberculosis patients

An entry point for tuberculosis patients to access HIV prevention and care.



Printed by

TB/HIV Research Foundation, Thailand and
The Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association

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WHO Regional Office for South-East Asia,
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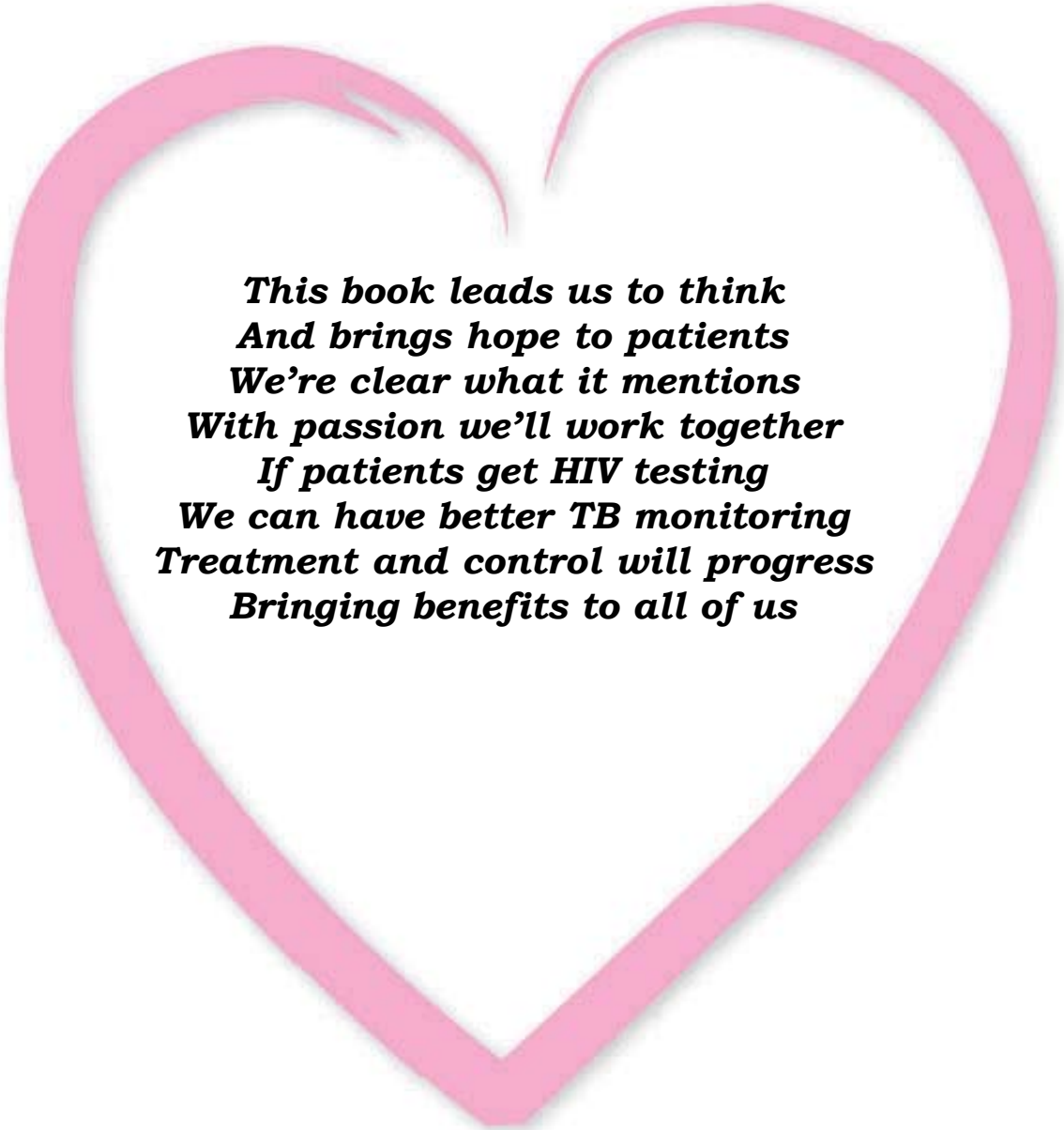
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***This book leads us to think
And brings hope to patients
We're clear what it mentions
With passion we'll work together
If patients get HIV testing
We can have better TB monitoring
Treatment and control will progress
Bringing benefits to all of us***

*Originally composed as a Thai poem by
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*Translated to English by
Dr. Pathom Sawanpanyalert,
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A tale of two girls... the similarities and differences



Susan



Nanny

- Photo credits: Amornrat Wiriyaprasobchok and Patcharin Duangkaew
- We have modified the photos in order to prevent socially negative impacts for the children.

Similarities...

Susan and Nanny :

- They are both orphans whose parents died from the same virus...HIV/AIDS
- They are both HIV infected.
- They are from poor families, but both of them are good girls and determined to study hard in their schools
- Both of them were attacked by TB but they were cured from TB despite HIV infection

Differences...

- Susan had TB in 2000 and Nanny developed TB in 2003
- Sadly, Susan passed away after she was cured from TB due to HIV-related opportunistic infection. At that time, poor people could not afford the expensive Anti Retro Viral drug (ARV)
- Fortunately, Nanny received TB and ARV treatment. She was cured from TB and she is continuing ARV therapy to this day. She looks healthy and studies hard. Nanny believes that she will grow up to be a good person for the society. Nanny says, ***"I want to be a good nurse to help other people to survive."***

If TB patients are not offered HIV testing, and if the TB program does not collaborate well with HIV/AIDS program, we may not have any "todays" for a girl like Nanny and for many people who are co-infected with TB and HIV

For whom is this book made?

How can we gain maximum benefit from this book?

For whom is this book made?

This book is made for...health care workers responsible for TB clinics, out-patient and in-patient departments who are responsible for HIV counseling and testing for TB patients but may lack experience in or do not recognize the importance of HIV testing. Some staff may want to offer HIV testing but the policymakers do not support it.

This book is made for...facilitating government and private health facilities to adhere to the “International Standards for Tuberculosis Care for HIV high prevalent settings.

This book is made for...promoting every TB patient’s access to HIV counseling and testing so that they can have equal access to HIV prevention and care which ultimately lead to reducing deaths and increasing survival of people infected by TB and HIV.

How can we gain maximum benefit from this book?

This book includes photos of HIV positive TB patients who have disclosed their HIV status to the public. Health staff can open the pages which contain photos and stories of these patients and show them to other patients. This may help to reduce self-stigma and may increase hope and strength for patients to accept HIV testing.

This book includes evidence from Thailand and other countries’ research which have been published in the international journals. Health staff may also use this evidence to convince the policymakers to recognize the importance of offering HIV counseling and testing for TB patients.



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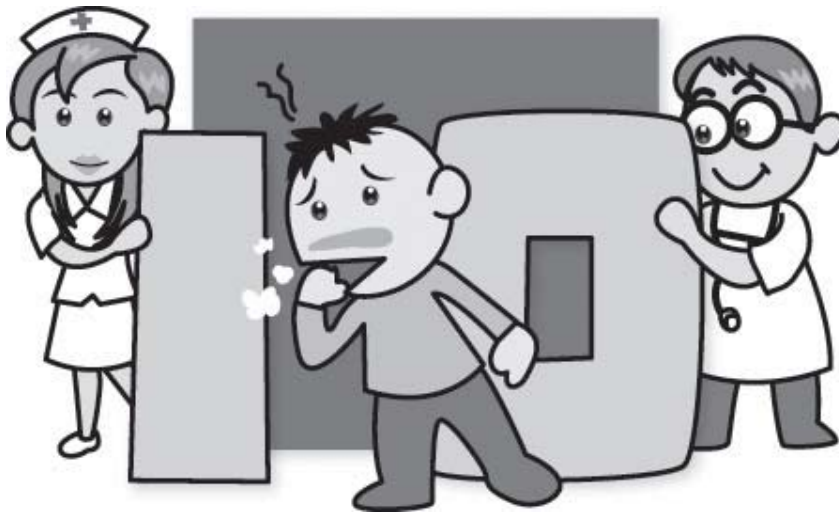
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Part I

HIV Testing for All Tuberculosis Patients



1. Ten reasons for offering HIV counseling and testing for all TB patients in Thailand



Reason 1

The World Health Organization (2004), the UNAIDS (2004) and the International Standards for Tuberculosis Care (2005), recommend counseling services and testing for HIV for every TB patient in a country with high HIV infection prevalence (a country with HIV prevalence greater than 1% in the general population) (annex 1-3).

Reason 2

Thailand is classified as a high burden country with TB and HIV/AIDS. Therefore, HIV counseling and testing for every TB patient is recommended for Thailand.

- WHO has listed 22 countries with high TB burden and Thailand has persistently been in the list. In 2006, Thailand became eighteenth in the world in terms of its TB patient number (<http://www.stoptb.org/countries> - retrieved 23 June 2006.).
- HIV is prevalent and has spread to every region in Thailand. HIV transmission takes place not only among the populations most at risk but also in the general population. From the Ministry of Public Health surveillance in 2003, the HIV prevalence rates in pregnant women which is classified as a general population, were between 1.18 - 3.13% (median = 1.19%).

The above mentioned scenario strongly support the need for HIV testing for all TB patients.



Reason 3

Data from Thailand TB Active Surveillance Network from Bangkok, Chiang Rai, Phuket and Ubon Ratchathane reported the following findings (Tables 1 and 2):

- HIV infection in TB patients can be found in men and women in all age groups ranging from less than one year old to 89 years old.
- Coverage of HIV testing in pediatric patients (age less than 15 years old) and in TB patients aged older than 50 years are only 64% and 62% respectively. This coverage is still below the recommendations from WHO and the International Standards for Tuberculosis Care.
- The proportion of pediatric TB patients who are co-infected with HIV is relatively high, at 28%. The HIV infection rate among TB patients aged older than 50 years is 4%. The lowest was in Ubon Ratchathane (1%), and the highest was in Bamrasnaradura Institute (47%).

These figures point out that HIV infection in TB patients in Thailand exists in all groups regardless of their sex or age, and strongly support the need for HIV testing in all TB patients no matter how old they are.

Reason 4

TB disease is closely related to HIV infection. This is because HIV-infected people become susceptible to TB infection when they are exposed to the organisms. Once TB-HIV co-infection exists, the individuals will have many more times the risk of developing TB disease than those who are not HIV-infected (Table 3). The US Center for Disease Control (CDC) reported that HIV-infected individuals are at much greater risk (more than 100 times) for progressing from latent TB infection to developing TB disease than the non-HIV-infected persons.

For this reason, approximately one-third of people living with HIV/AIDS (PLWHA) in countries with high HIV prevalence such as African countries as well as Thailand are also infected with TB. In addition, TB is the most common opportunistic infection and an important cause of death among PLWHA. This again strongly supports the recommendation that, in a country with high HIV prevalence (higher than 1%), a diagnosis of TB is an indicator for HIV testing in every single patient.



Reason 5

The WHO and Thailand have put in place a policy to provide PLWHA with access to antiretroviral drugs. HIV testing in TB patients therefore provides opportunity for TB patients with HIV co-infection who do not know their HIV status to have access to both TB and HIV care, which will lead to a reduction in mortality rate during TB treatment and will extend survival after completing TB treatment (Tables 4 - 5).

Without other HIV related medicines such as cotrimoxazole or antiretroviral drugs, HIV infected TB patients were reported to have high mortality rates (which could be as high as 30-70%) during TB treatments. Even if they do not die during the treatments, they will usually die two or three years later.

To promote access to proper management of TB and HIV care, all TB patients should undergo HIV counseling and testing.

Reason 6

HIV counseling and testing for all TB patients provides a better opportunity for HIV prevention and care. Evidence from many studies found that HIV counseling and testing promotes HIV-prevention behaviors among PLWHA (Table 6). In addition, HIV testing can provide early access to HIV prevention and care for partners of TB patients.

Reason 7

No other means of establishing a diagnosis of HIV infection is as effective as laboratory testing. Some healthcare workers, however, believe that HIV testing is not necessary for all patients as a questionnaire can be used to identify patients at risks of HIV infection, and therefore, HIV testing is reserved only for those at most risk. Much research evidence, including studies from Thailand, have confirmed that, **"What people say they do may not be what they actually do"**. Therefore, the use of questionnaires to identify individuals at risk of HIV infection is not reliable (Figure 1).

Reason 8

HIV testing for all TB patients benefits the work of TB control, because it helps in analyzing the impacts of HIV/AIDS on TB control. For example, it helps us to understand why mortality rates, relapses or default rates are high among TB patients.



Reason 9

As TB is a significant opportunistic infection in PLWHA, HIV testing in TB patients benefits HIV/AIDS control. It contributes to the analysis of opportunistic infection in Thailand. Without HIV testing in TB patients, the prevalence of TB disease, as an opportunistic infection, will appear lower than it really is. This is due to the fact that some HIV-infected individuals do not necessarily know of their HIV status before they come for TB treatments.

Reason 10

HIV testing for all TB patients signifies a sense of non-discrimination. Should HIV testing be done only in some at-risk populations such as intravenous drug users, sex workers and clients, and men who have sex with men, discrimination might be felt and stigmatization of HIV/AIDS could be reinforced.

Table 1 The minimum and maximum age of HIV-positive TB patients in Thailand (October 2004 –March 2006)

Data sources	The minimum and maximum age of HIV-positive TB patients (years)
Health centers and private hospitals in 8 regions, Bangkok	18-89
Bamrasnaradura Infectious Disease Institute	5-80
Chiang Rai Province	1-77
Phuket Province	2-65
Ubonratchathanee Province	1-64

Source: Thailand TB Active Surveillance Network. May, 2006. (Thanks to Dr. Jay Varma and Ms.Amornrat Anuwatnonthakate)



Table 2 Situation of TB and HIV co-infection in children (< 15 years old) and adults (> 50 years old) (October 2004 - March 2006)

Province/Data sources		HIV +	HIV -	HIV Unknown
Health centers and private hospital in 8 regions, Bangkok	Children n = 10	0%	40%	60%
	Adults (age > 50 years) n = 312	6%	32%	62%
Bamrasnaradura Infectious Disease Institute	Children n = 8	75%	0%	25%
	Adults (age > 50 years) n = 93	47%	18%	34%
Chiang Rai Province	Children n = 111	26%	40%	34%
	Adults (age > 50 years) n = 950	5%	73%	22%
Phuket Province	Children n = 22	14%	73%	14%
	Adults (age > 50 years) n = 166	10%	70%	19%
Ubonratchathanee Province	Children n = 42	40%	12%	48%
	Adults (age > 50 years) n = 1,538	1%	55%	44%
Total	Children n = 215	28%	36%	36%
	Adults (age > 50 years) n = 3,154	4%	58%	38%

Source: Thailand TB Active Surveillance Network. (Thanks to Dr.Jay Varma and Ms.Amornrat Anuwatnonthakate)



Table 3 The association between TB and HIV/AIDS

TB and HIV status	The lifetime risk of developing TB disease
Latent TB infection without HIV infection	5-10%
Latent TB infection with HIV infection	50 %

Source: WHO. TB/HIV Clinical Manual. 2004.

Table 4 Impact of cotrimoxazole preventive therapy in reducing mortality among HIV positive TB patients (before ARV was available)

Country and years	Indicator	Without Cotrimoxazole	With Cotrimoxazole
Malawi* 1999-2000	Mortality rate	43.0%	24.0%
South Africa** 1998-2000	Mortality rate	14.1%	10.1%
Cote d' Ivoire*** 1995-1998	Reducing mortality	51.0%	86.0%
Côte d' Ivoire**** 1999	Survival rate	55.1%	69.8%

Source:

* Mwaungulu FB, Floyd S, Crampin AC, et.al. Cotrimoxazole prophylaxis reduces mortality in human immunodeficiency virus-positive tuberculosis patients in Karonga District, Malawi. Bull World Health Organ. 2004 May;82(5):354-63.

** Grimwade K, Sturm AW, Nunn AJ, Mbatha D, Zungu D, Gilks CF. Effectiveness of cotrimoxazole prophylaxis on mortality in adults with tuberculosis in rural South Africa. AIDS. 2005 Jan 28; 19(2): 163-8.

*** Wiktor SZ, Sassan-Morokro M, Grant AD, et.al. Efficacy of trimethoprim-sulphamethoxazole prophylaxis to decrease morbidity and mortality in HIV-1-infected patients with tuberculosis in Abidjan, Cote d' Ivoire: a randomised controlled trial. Lancet. 1999 May 1; 353(9163): 1469-75.

**** Xavier Anglaret, Geneviève Chêne, Alain Attia, et.al. Early chemoprophylaxis with trimethoprim-sulphamethoxazole for HIV-1-infected adults in Abidjan, Côte d'Ivoire: a randomised trial. Lancet 1999; 353: 1463-68.



Table 5 Impact of antiretroviral drugs (ARV) on survival and mortality of HIV-positive TB patients.

Country	Indicators	Without ARV	With ARV	p-value
USA*	Survival rate	1991 58 %	1997 83%	$p < 0.001$
Italy**	Survival rate	1995-1996 65%	1997-1998 80%	$p = 0.02$
England***	Mortality rate (follow up 3.6 years)	43%	22%	$p = 0.012$

Source:

*Leonard MK, Larsen N, Drechsler H, et.al. Increased survival of persons with tuberculosis and human immuno deficiency virus infection, 1991--2000. Clin Infect Dis. 2002 Apr 1;34(7):1002-7. Epub 2002 Feb 27.

**Girardi E, Palmieri F, Cingolani A, et.al. Changing clinical presentation and survival in HIV-associated tuberculosis after highly active antiretroviral therapy. J Acquir Immune Defic Syndr. 2001 Apr 1;26(4):326-31.

***Dheda K, Lampe FC, Johnson MA, Lipman MC. Outcome of HIV-associated tuberculosis in the era of highly active antiretroviral therapy. J Infect Dis 2004 Nov 1;190(9):1670-6 2004;Epub 2004 Sep 29.

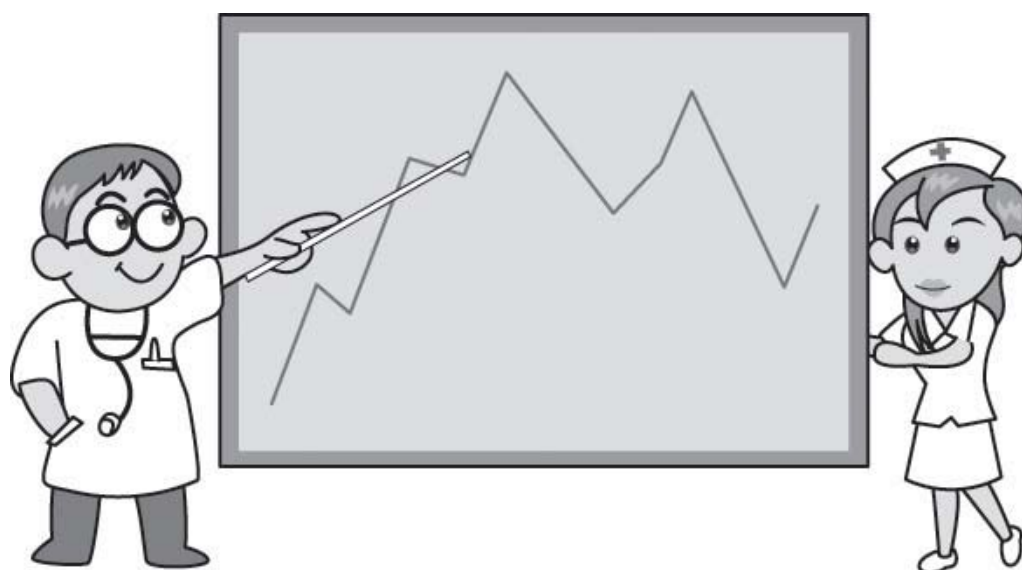


Table 6 Impact of Voluntary Counseling and Testing for HIV on TB patients' knowledge and practices regarding HIV prevention in Abidjan, Cote d'Ivoire

Knowledge and Practices about HIV/AIDS	Before VCT (n = 559)	Immediately right after VCT (n = 559)	4 months after VCT (n = 367)
Were able to identify route of HIV transmission	68.9	90.0*	83.7*#
Were able to identify HIV prevention methods	68.0	86.6*	87.7*
Correctly answered all questions related to HIV	27.9	70.5*	60.2*#
Used condom when having sex with non-sex worker partner (n = 367)	9.9%	--	23.6% (p = 0.001)

* Statistical significantly difference compared to before VCT

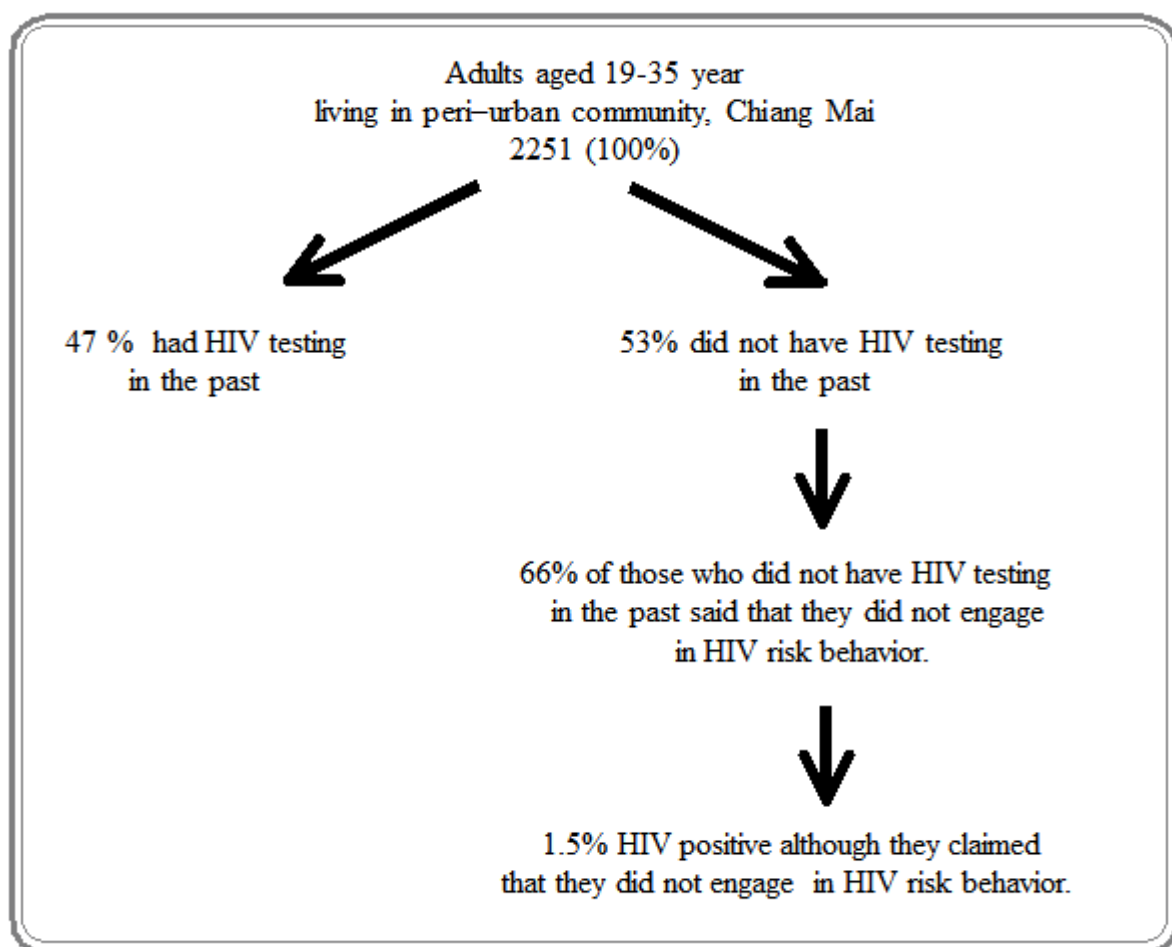
Statistical significantly difference compared to immediately right after VCT

Source:

Wiktor SZ, Abouya L, Angoran H, et.al. Effect of an HIV counseling and testing program on AIDS-related knowledge and practices in tuberculosis clinics in Abidjan, Cote d'Ivoire. Int J Tuberc Lung Dis 2004 Apr;8(4):445-50. 2004(4):445-50.



Figure 1 Congruency between reported HIV risk behaviors obtained from the interview and results of HIV testing among the adults 19-35 years living in peri-urban community, Chiang Mai, Thailand



Source:

Kawichai S, Nelson KE, Natpratan C, et.al. Personal history of voluntary HIV counseling and testing (VCT) among adults aged 19-35 years living in peri-urban communities, Chiang Mai, Northern Thailand. *AIDS Behav.* 2005 Jun;9(2):233-42.



2. How can HIV testing benefit TB patients?



HIV testing provides many benefits to TB patients because:

- In general, TB patients with HIV co-infection experience relatively high mortality rates (between 30-70%) during TB treatment. Even if cured from TB, these patients usually die from other opportunistic infections and live only for another one to three years if HIV infection is not properly treated.
- HIV testing provides a beginning for prevention and management of HIV/AIDS. Once the diagnosis of HIV infection is established, proper management measures can be put in place. One example is the administration of cotrimoxazole to prevent many opportunistic infections caused by bacteria and protozoa. Another is the administration of antiretroviral drugs. Proper management by antibiotics and antiretroviral drugs can help reduce mortality rates, prolong life and improve quality of life of PLWHA or people co-infected by TB and HIV (Tables 4-5).
- HIV testing is a strategy to help patients reduce the chance of spreading HIV to their spouses and others. Once TB patients are found to have HIV infection, counseling for HIV testing will be provided to their spouses or partners, and HIV prevention strategies will be taught. If their partners are also found to have HIV infection, they can be referred to proper services



3. How can HIV testing for TB patients benefit HIV/AIDS prevention?

- HIV testing in TB patients, when done appropriately, will benefit HIV/AIDS control. This is attributed to HIV counseling provided by trained hospital staff before and after HIV testing. The counseling covers many areas related to HIV/AIDS, including HIV prevention.
- If TB patients are found HIV-negative, HIV testing and counseling can give them an opportunity to learn about HIV prevention and encourage them to avoid HIV risk behavior.
- If TB patients are found to have HIV co-infection, they can learn from the counseling how to prevent the spread of HIV to their partners as well as how to reduce the chance of being infected by more HIV.



Table 6 presents research findings on the benefits of HIV/AIDS counseling in TB patients in terms of knowledge related to HIV prevention and use of condoms to prevent HIV infection. HIV testing for all TB patients provides equal chance for every TB patient to access comprehensive HIV/AIDS prevention and care services.



4. Where can TB patients receive information or advice related to HIV testing?

Sources of information, including persons who provide HIV testing information	Advantages	Disadvantages or special considerations
Posters, pamphlets, printed materials	<ul style="list-style-type: none"> ● Patients or relatives can study the materials by themselves while waiting for a doctor's consultation. ● It saves the time of doctors and healthcare workers. ● It prepares patients before they meet with doctors or healthcare workers. 	<ul style="list-style-type: none"> ● These materials are not understood by individuals who are illiterate, and therefore they do not benefit from them.
Doctor who diagnose TB	<ul style="list-style-type: none"> ● Patients tend to have trust in doctors and their advice, and are willing to be tested for HIV. 	<ul style="list-style-type: none"> ● Doctors do not generally have time for providing information or giving patients the opportunity to ask questions. ● Patients may not be ready for HIV testing but are inclined to follow doctor's advice.
Staff at TB clinic	<ul style="list-style-type: none"> ● TB clinic staff have extended contact with patients throughout the course of TB treatment, and usually develop a trusting relationship with patients which can lead to acceptance of HIV testing among TB patients who may have refused the testing during the first contact. 	<ul style="list-style-type: none"> ● TB clinic staff need to have training on HIV/AIDS counseling.
HIV/AIDS counselors or staff at HIV/AIDS clinic	<ul style="list-style-type: none"> ● HIV/AIDS counselor and clinic staff have experience in HIV/AIDS counseling and therefore can help patients with TB-HIV co-infection cope well, both psychologically and socially. 	<ul style="list-style-type: none"> ● Referral of active TB patients (TB patients who have been undergoing TB treatments less than 2 weeks) to other hospital units may increase risk of TB transmission within the hospital.
Out-Patient Department (OPD) nurses or staff (while waiting for doctor's consultation)	<ul style="list-style-type: none"> ● This helps prepare patients for doctor or healthcare workers' advice. 	<ul style="list-style-type: none"> ● Busy and loud OPD environments can limit patient's learning.
In-Patient Department (IPD) nurses	<ul style="list-style-type: none"> ● IPD nurses have time to gradually develop a relationship and build rapport with patients. 	<ul style="list-style-type: none"> ● In a shared bedroom unit or ward, bedside information giving may lead to misunderstanding by adjacent patients. Patients themselves may not feel comfortable to exchange questions and answers with nurses. A separate and private room should be used for counseling purpose.



5. When should TB patients receive HIV testing?

When	Advantages	Disadvantages
Once a TB diagnosis is made, the patients should have an HIV testing as soon as possible.	This helps facilitate early detection of HIV status, which can facilitate quick and timely management.	Patients may not be able to cope psychosocially, if they have found themselves to be infected by both TB and HIV.
Two weeks after the beginning of TB treatment or during the next follow-up visit	This helps reduce the risk of spreading TB to healthcare workers during HIV counseling and testing. TB treatment can help reduce the spread of TB.	Lack of efficient follow-up or good recording system may result in "no HIV testing" in these patients.



6. Counseling, Confidentiality and Consent: The Three-C principles for conducting HIV testing for every TB patient

Counseling

- Patients should be counseled and have knowledge of how important HIV testing is for the treatment of TB and the maintenance of their health in the long-term.

Confidentiality

- Doctors and healthcare workers should maintain the confidentiality of their patients, especially those TB patients who are co-infected with HIV.
- Confidentiality means persons other than the patients themselves, and healthcare personnel who are duly involved in the care of the patients, must not have any knowledge of the patients' HIV status. Disclosure of the patients' HIV status to their spouse or relatives must be done only with the consent of the patient.

Consent

- Patients have the right to refuse HIV testing.
- Prior to testing, health staff must have the patient sign a consent to have their HIV status tested and be informed about the test result. Healthcare personnel must not inform the patient's spouse or relatives about the patient's HIV status on the patient's behalf, without the authorization of the patient.

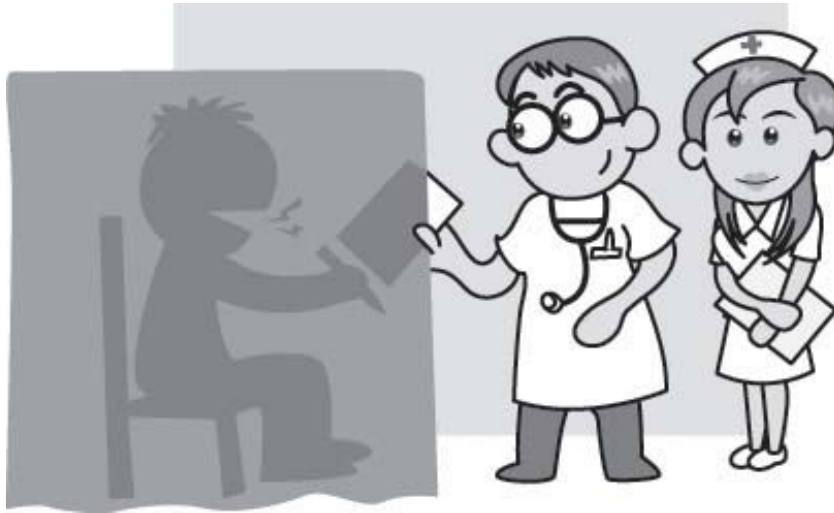
***A hospital or clinic with strict patient confidentiality
measures will gain the patients' acceptance
for HIV testing with ease and
patient satisfaction will result.***



Confidentiality measures for HIV-positive TB patients

Confidentiality can be broken by one of the following ways:

- Patient identification card, medical records or reports, and computerized documentation.
- A consultation room that is an open space and does not provide privacy during the consultation can lead to disclosure of patient information to others.
- Doctors or healthcare workers, intentionally or unintentionally disclose the patient information to others.



Confidentiality measures in a hospital setting

- First of all, it must be ensured that the information of an individual patient is not mixed up with others. A confirmation system must be established to make sure that the information we are dealing with belongs to that particular patient not others. For example, patients may be asked to confirm their names before the information is processed.
- The HIV test result must not be informed over the telephone.
- The patients' HIV status must not be disclosed to their spouses or relatives without the patients' consent.
- If possible, the HIV counseling room should not be labeled in a way that leads others to understand that the room is specifically designated for HIV counseling purposes. "**Counseling Room**", which signifies a general counseling service, may be used instead of "**HIV Counseling Room**", which can make people associate this room with HIV.
- A consultation or counseling room should be designed to maintain privacy and confidentiality.

- A strict documentation system must be established to ensure that hospital personnel who are not involved in the care of the patients will not have access to identifiable patient HIV information.
- Use numbers (e.g., hospital number) instead of name and surname in the HIV result report. (However, the numbers must be validated by double entry to prevent documentation error).
- Use coding to record and access data.
- Should an interpreter be required for the communication between healthcare personnel and patients, the interpreter must be trained in confidentiality measures.

Confidentiality measure in a community setting

Often, nurses or hospital personnel have to visit TB patients with HIV co-infection at home without knowing whether the patients have disclosed their HIV status to their family or neighbors. Under these circumstances, nurses and hospital personnel should take the following measures:

- Before making a home visit, the three important pieces of information that must be established are:
 1. Do the patients consent to having a home visit?
 2. Do the patients consent to the disclosure of their HIV status to their family?
 3. What did the patients tell their family about their illness?
- If the patients are not at home upon your arrival, the health personnel must not leave a letter or a message for the patients with their neighbors. This is one way that confidentiality can be broken.
- Find a place that can offer privacy during a conversation with patients. Avoid a public space. If family members or relatives are around, the health personnel may ask for privacy, using the excuse that they want avoid interruptions. For female personnel and female patients, the personnel may use the need for physical examination as an excuse for privacy between the health personnel and the patients and ask the others to wait outside.

It may be true that no secrets exist in this whole world forever, but confidentiality measures can keep patient information confidential while they are in the hospital and in the community!



7. How can we communicate with TB patients so that they voluntarily consent to HIV testing?

7.1 Communicating the importance of HIV testing.

Sample messages used in communicating with TB patients to raise their awareness of the benefits of HIV testing

- For the interest of TB patients, the World Health Organization and the Ministry of Public Health recommend that every TB patient in Thailand, regardless of their age, have their HIV status tested. This is due to the fact that a large number of TB patients are also infected by HIV.
- HIV testing provides many benefits to TB patients. TB patients with HIV co-infection can survive if their TB and HIV infections are treated properly.
- Although AIDS is incurable, antiretroviral drugs can now help PLWHA live longer. These two patients are one such good example. (Point to the pictures of the two patients on the next page). The two women are infected by TB and HIV. One is still alive; another however has passed away.
- For the benefit of TB patients, therefore, it is recommended that all TB patients have HIV testing. Test results will be kept strictly confidential. However, to have or not to have the test is absolutely the patient's voluntary decision.

Do you have any question concerning HIV testing?

- Give the information about techniques and cost of the test and time that the result will take, which differ from hospital to hospital.
- Please sign to “**consent**” or “**refuse**” (in a patient hospital record or in a HIV testing consent form)
 - Consent or refuse HIV testing
 - Consent or refuse to be informed about your HIV test result?
 - When do you prefer to be informed about your HIV test result?
 - To whom will you consent the disclosure of your HIV test result?
 - Do you need help from hospital personnel to help your family, work colleagues and employer understand your situation?





This woman died of AIDS-related opportunistic infection seven months after her TB had been cured. Her death has deeply saddened her parents. In the past, TB patients were too poor to afford antiretroviral drugs; however, today patients have access to antiretroviral drugs at government hospitals.

** The photo is authorized for display*

This woman has had her TB cured, and has also been on antiretroviral drugs. She is still living. She has two young kids, who are not orphaned because their mother is still living. HIV testing is therefore very important because it opens up the opportunity for proper care of the patients.



** The photo is authorized for display*



7.2 Communicating with patients whose HIV test result is negative.

Sample messages used in communicating with TB patients when they are found not to have an HIV infection from the test

- From the test result, you do not have HIV infection. This means that from this test, HIV which is the cause of AIDS was not found in your body. When the test is negative, however, it may be due to one or another of the following two possibilities. That is:
 - First, you are absolutely free from HIV infection or
 - Second, you may have been recently infected with HIV, but the test is still negative. In this case, the HIV test may become positive after 3-4 weeks.
- If you are confident that you are not at risk of having HIV infection, you will be treated for TB and advised on how to prevent HIV infection. But if you believe that you are at risk of being infected by HIV recently, you are advised to come back in three weeks for another HIV testing. *(Listen to patients' opinions concerning risk behaviours and the need for another HIV testing, and review HIV prevention knowledge).*
- Have your partner or spouse ever had an HIV test? If not, they are advised to have their HIV status tested for the benefit of yourself and your partner. This is because if both you and your partner are not infected by HIV, you and your partner will be advised on how to prevent HIV infection. But if your partner is infected by HIV, you will learn how to prevent the transmission of HIV from your partner to yourself.



Believe it or not?

The US has announced the 27th June of every year “**A National HIV Testing Day**” to raise public awareness of AIDS and reduce AIDS-related risk behaviours by conducting HIV tests. The US government regards AIDS as a priority issue and acknowledges the need to keep the spread of the disease under control. HIV testing is another strategy to help reduce the spread of HIV. All Americans are therefore encouraged to have an HIV test at least once in their life. The government believes that HIV testing provides Americans with access to HIV prevention knowledge and counseling, and with personal information concerning AIDS as basic health information.



7.3 Communicating with patients whose HIV test result is positive

Sample messages used in communicating with TB patients when they are also found to be co-infected with HIV

- From the test result, you are infected by TB and also with HIV.
- Because we know your HIV status, we can now help manage your TB and HIV care better. In the early stages, you may feel depressed, distressed and hopeless, and you may need time to cope with these feelings. But the most important thing for you to do is to always have hope. We have witnessed many TB patients with HIV infection who have had their TB cured, continue living to this day, and work to earn themselves and their families a living even with their HIV infection.
- *(Point out the pictures on the next page to the patient)*
- **Disclosure of HIV infection to the patient's partner and family**

I want to assure you that the hospital will keep your HIV infection confidential. However, it is necessary that you tell your partner of your HIV status and ask him/her to have an HIV test. We have met many HIV-infected patients whose partners were not infected by HIV. During the time your partner is waiting for an HIV test, you should avoid having sex with your partner or always use a condom during sexual intercourse. In addition, you must not donate your blood or organs to others as this can transmit HIV. If you need help with telling of your HIV infection to your partner or family members, we are ready to help you do so.





Judge Edwin Cameron is a judge of the Supreme Court of Appeals who was the first senior South African official to state publicly that he was infected with HIV/AIDS. For a decade he has dedicated himself to fight against HIV/AIDS stigma and promote human rights. Once, he almost died because of AIDS but he could survive because of proper HIV treatment and care. In Thailand, some senior officials and wealthy business men are also infected by TB and HIV/AIDS but nobody publicly announces or advocates for him/herself to fight against HIV/AIDS like Judge Edwin Cameron does

Photo credit: http://en.wikipedia.org/wiki/Image:Edwin_cameron.jpg

This gentleman once had TB disease and is also infected with HIV. During the early stages of his illness when he was very sick, he felt like he was about to die. But he kept taking TB drugs until his TB was cured and has been on antiretroviral drugs. Today, he works to earn a living for himself and his mother, and lives happily with her. Most people usually feel depressed, hopeless and disappointed when they first find out that they are infected with HIV. Finally, however, they can pull through this difficulty. We hope that you will also pull through such difficulties, **and we are with you.**



** The photo is authorized for display*



8. How to communicate with TB patients who refuse HIV testing?

First of all, you must find out why the patients refuse HIV testing. Here are common reasons. First, patients feel they cannot accept the fact if their HIV test results are positive; they therefore avoid the reality. Second, they think that they did not have any risks related to HIV infection in the past; they therefore see no need for HIV testing (especially among older persons). Third, they have already had an HIV test and the result was clear; they believe that the result from the previous test is still valid. For each reason, you may use the tips below to counsel the patients.

- **If the patients refuse HIV testing on the grounds that their previous HIV tests were negative;**
 - First, ask them why they have had HIV tests in the past, when they had them, and try to obtain a record of the test result.
 - Explain to them the need for a test result that is current and issued by the hospital.
 - Review the benefits of HIV testing on treatment of TB and on the patients' own health in the long term.

- **If the patients refuse HIV testing on the condition that they are stressed and cannot accept the fact if their HIV test results are positive;**
 - Review with the patients to determine whether they do have knowledge about HIV transmission.
 - Assure them that the hospital personnel are willing to counsel the patients and their relatives.
 - Use a media that portrays well-known persons who are infected with HIV or other TB patients with HIV co-infection that accepted HIV testing, and still have a good quality life despite HIV infection.
 - Offer an opportunity for HIV testing whenever the patient visits the hospital and is ready to get the test for HIV.



- **If the patients refuse HIV testing on the grounds that they did not have HIV-risk behaviors in the past;**
 - Review with the patients to determine whether they do have knowledge about HIV transmission
 - Explain to them the need for current test results and information for valid diagnosis
 - Show them the research findings from figure 1 on page 10. These findings revealed that some people who said they had not had any HIV-related risks and therefore did not need the HIV test. But the tests of some of these people became positive for HIV. **Therefore, laboratory HIV testing is the only reliable way to determine HIV infection.**

- **If the patients refuse HIV testing on the condition that they are old;**
 - Explain to them the data on HIV infection in the provinces from the four regions of Thailand (table 7). Even though TB patients aged older than 50 years who were also infected with HIV accounted for only 1% in some areas, almost half of the TB patients in this age group in other areas were also infected with HIV. The Thai stereotypical belief that older persons do not have risks related to HIV infection does not hold true.
 - Explain to them that, in some people, HIV infection may stay asymptomatic for up to ten years. Individuals who do not have recent risk factors related to HIV infection might have had the risks and been infected with HIV many years ago.



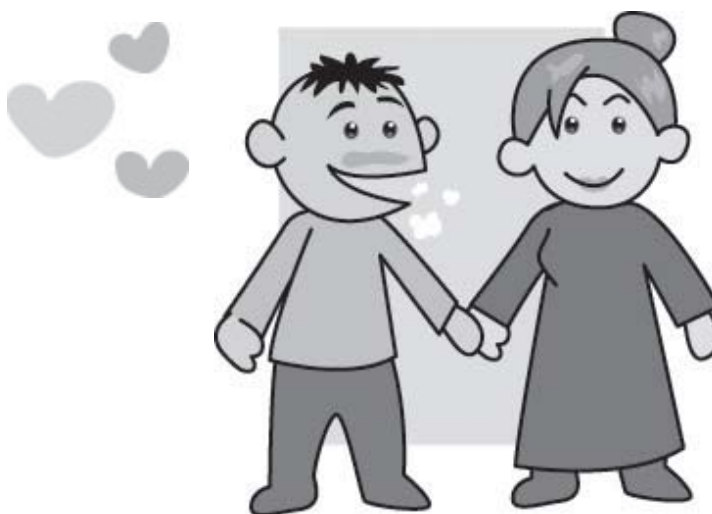
**Table 7 Situation of HIV infection among TB patient age over 50 years
(October 2004-March 2006)**

Data sources	Maximum age (years)	TB with HIV positive	TB with HIV negative	TB with unknown HIV status
Health centers and private hospital in 8 regions, Bangkok n = 312	89	6%	32%	62%
Bamrasnaradura Infectious Disease Institute n= 93	80	47%	18%	34%
Chiang Rai Province n = 950	77	5%	73%	22%
Phuket Province n = 166	65	10%	70%	19%
Ubonratchathanee Province n = 1,538	64	1%	55%	44%
Total n = 3,154	89	4%	58%	38%

Source: Thailand TB Active Surveillance Network.



9. Do we need to offer HIV counseling and testing for partners of TB patients?



Hospital personnel may have felt that HIV counseling and testing for all TB patients is already a burden and creates too much staff workload. Therefore, staff may not realize the need for or the feasibility of HIV testing in partners of TB patients. With limited health personnel, the following priorities are recommended for HIV testing in the work of TB control.

1. TB patients
2. Partners of TB patients who are also HIV-infected
3. Partners of TB patients who are not HIV-infected

HIV testing in partners of TB patients entails two objectives. These are:

First:

If the spouses of TB patients are infected with HIV, they will be advised to have an investigation for TB infection. Preventive therapy for TB and other opportunistic infections as well as antiretroviral drugs can then be initiated.

Second:

If the spouses are not infected with HIV, measures will be sought for lifelong prevention of HIV transmission among the couple.



Research data presented in the table below support the need for HIV counseling and testing for partners of TB patients, **especially those of TB patients with HIV co-infection.** As shown, half of the spouses of TB patients with HIV co-infection did not have HIV infection. From this research, wives of TB patients cried with happiness that they did not get HIV from their husbands. Many spouses were distressed and did not want to have their HIV status tested simply due to the belief that they had surely been infected by HIV from their spouses. Data from the Thai Red Cross AIDS Research Center also reported differences in HIV status among husbands and wives. That is, one-third of the husbands of HIV-infected pregnant women still do not have HIV infection (Prof. Praphan Phanupak, MD, July 25, 2006-unpublished data). HIV testing for partners of TB patients is an opportunity for health personnel to give HIV counseling and advise HIV testing for these people leading to HIV prevention and proper care if the partners of TB patients are infected with HIV.

Table 8 HIV status of the partners of TB patients, Chiang Rai Provincial Hospital, 2000-2002

HIV status of partner of TB patients	TB patients	
	HIV +ve 74	HIV -ve 112
HIV +	36 (48.7%)	1 (0.9%)
HIV -	38 (51.3%)	111 (99.1%)

Source:

Suggaravetsiri P, Yanai H, Chongsuvivatwong V, Naimpasan O, Akarasewi P. Integrated counseling and screening for tuberculosis and HIV among household contacts of tuberculosis patients in an endemic area of HIV infection: Chiang Rai, Thailand. Int J Tuberc Lung Dis. 2003 Dec;7(12 Suppl 3):S424-31.



10. How can health care providers avoid TB infection?

HIV testing for all TB patients may cause anxieties among health personnel who give counseling and/or are collecting samples for laboratory testing. The most common anxiety experienced by the personnel is a result of fear of getting TB from the patients. If this happens during the counseling, health personnel may feel disgusted toward the patients and may not want to have close contact with them, or may unduly hasten the service they are providing.

Risk of TB transmission in the hospital

Reports from African, South American and Asian countries reveal that healthcare personnel are at high risk of getting TB from the hospitals where they work, especially the hospitals which have TB patients in the wards.

The highest risks for TB transmission within a hospital setting are associated with TB patients with the following characteristics:

- TB patients in the infectious stage (sputum smear positive, cavity lung lesions)
- TB patients whose TB disease is not yet diagnosed. The longer the diagnosis is delayed, the higher the chance of TB spreading in the hospital becomes.
- TB patients with frequent and severe cough and those who do not close their mouths while coughing or cough and then spit all over the place.

If these patients are placed in a poorly ventilated area and together with many other patients, especially HIV-infected patients, the chance of TB transmission then becomes high.



Recommendations for health staff for TB prevention

The following advice may assist health personnel to feel confident and safe while providing quality care to their TB patients.

- Health personnel who have HIV infection should avoid direct contact with TB patients because they are susceptible to be infected and develop TB disease easily.
- New staff may be screened for TB infection by using tuberculin skin test (TST) and the results should be recorded as baseline data. If their first TST result is negative, they should be re-tested every year. If test result turns positive in the following year (i.e., tuberculin conversion), it means they have been infected with TB and should be further investigated and considered for TB preventive therapy.
- Whenever health personnel care for patients in an isolation or autopsy room, or the room for bronchoscopy or a sputum induction room, a special protective mask (N-95 mask) must be worn. This mask can filter more than 95% of germ particles (including TB) that are as small as three micron.
- For a hospital's out-patient department which receives a large number of patients with various medical conditions (including those with TB or HIV infection), the following measures should be practiced to reduce the risk of TB transmission.
 - Screen for patients who have pulmonary TB-related symptoms (namely, chronic cough for more than 2-3 weeks) and those who are suspected to be infected with TB, and give them priority in seeing a doctor in order to reduce waiting time and therefore reduce the risk of TB transmission to other patients and health personnel.
 - Teach patients about correct coughing, sneezing and spitting of sputum, or advise them to wear a mask over their mouth and nose while waiting for a doctor's consultation.
 - Provide a one-stop service to minimize the movement of patients from one unit to another. For example, have a TB patient sit in a waiting area specially designated for TB patients, immediately after the TB diagnosis is made. Then have their relatives or health personnel submit sputum or blood samples to the laboratory unit and dispense their drugs at a consultation room, instead of moving the patients to have them wait in front of the dispensary or pharmacy department.
 - Ask the patients to collect their sputum sample in an area that is outside the building, well ventilated and in an area that receives sunlight. To avoid embarrassment related to spitting and collecting sputum, however, an area that offers minimal exposure of such activities to others should be considered.
 - Put in place a system that fosters quick diagnosis of TB and effective follow-up and monitoring of TB patients, for example, follow-up of sputum exam result, caregiver-administered DOTS, default follow-up, and evaluation of treatment outcomes.
- A consultation room must be well ventilated, for example, windows should be open or a ventilating fan should be turned on during a consultation. Sunlight should reach the room. Tissue papers should be provided for patients to cover their mouth when coughing or sneezing. Health personnel must be seated upwind of the patient, rather than downwind.
- For an in-patient department, very often TB patients with HIV infection who are very ill are admitted to the ward, and TB diagnosis is made many days after hospitalization. This is an important cause of TB transmission to health personnel and to other patients in the ward.



**To reduce risk of TB transmission
in an in-patient department,
the following measures should be taken.**

- Have an isolation room for TB patients (physically isolated but not neglected). If possible, it should be a negative air pressure room.
- If there is no isolation room for TB patients, the ward must be well ventilated and reached by sunlight. (Many hospitals close the windows during cool season. In doing so, germs are kept within the ward and may be transmitted to others).
- Teach patients and relatives about correct coughing and sputum disposal techniques (a bedside garbage and sputum disposal container must be covered with a lid).
- Find an appropriate area for sputum collection.
- Promote use of a facial mask in patients experiencing all kinds of respiratory conditions. Instruct the patients to wear a mask over their mouth and nose.
- Have the patients take their medications in front of the nurse, and reinforce the importance of TB medications.
- Promote timely detection of TB infection in patients who are admitted to the ward for other medical conditions but have TB-related symptoms.
- Have a practical care map to control TB transmission in the ward by considering:
 - Bed placement for patients who are suspected of having TB.
 - Timeliness of sputum sample collecting, obtaining and reporting of the result to the doctor
 - Use of N-95 mask while providing care to TB patients
 - TB education for patients and their relatives
 - Proper discharge planning for TB patients

***Timely detection of TB and proper TB care
help reduce TB transmission
to health personnel and to other patients.***





** The photo is authorized for display*

Very often, TB patients with HIV co-infection are admitted to the hospital because they are very ill. According to hospital TB infection control principles, these patients should be placed in an isolation room (a negative air pressure room, if possible). However, this is not always possible-there are often no (or not enough) isolation rooms. As shown in this photograph, nurses in one hospital placed a patient who was suspected of having TB near a window that was reached by sunlight and well ventilated. Nurses instructed the patient to hang a plastic bag on his ears and place it over his nose and mouth. The patient spit the sputum into a container which was placed in the bag. This is a good example of how nurses attempt to minimize risk of TB transmission during sputum collection. If you are in this situation, please consult a doctor or an infectious control nurse (ICN).



** The photo is authorized for display*

A TB clinic at one hospital specifically arranged a table and a seat for patients to collect their sputum samples. The table was placed outside the building in an area that no other patients would walk past but which was reached by sunlight and well ventilated.



** The photo is authorized for display*

At one hospital, respiratory infection, including TB control, was given recognition. Classes on correct coughing and sputum spitting manner, and use of a facial mask, were organized for patients with TB and other respiratory infections. In the photograph, HIV-infected patients participated in one of those classes during their monthly group activity.



11. How do we evaluate HIV testing for TB patients?

Evaluation of HIV testing for TB patients can be performed through analyses of individual TB patients' registration records and an overall TB registration record. These kinds of evaluations are possible only when TB registration data are complete. The following indicators should be evaluated at least once a year.

1. Coverage of counseling for HIV testing

$$\frac{\text{Number of TB patients who receive counseling for HIV testing}}{\text{Total number of TB patients}} \times 100\%$$

2. Coverage of HIV testing

$$\frac{\text{Number of TB patients who receive HIV testing}}{\text{Total number of TB patients}} \times 100\%$$

3. Prevalence of HIV infection among TB patients who receive HIV testing

$$\frac{\text{Number of TB patients who are tested positive for HIV infection}}{\text{Number of TB patients who receive HIV testing}} \times 100\%$$

4. Coverage of TB patients with HIV co-infection who receive proper care in relation to their HIV infection

$$\frac{\text{Number of HIV-positive TB patients who had their CD4 tested within 3 months before or during TB treatment}}{\text{Total number of HIV-positive TB patients}} \times 100\%$$

$$\frac{\text{Number of HIV-positive TB patients who received cotrimoxazole with TB treatment}}{\text{Total number of HIV-positive TB patients who meet criteria for cotrimoxazole}} \times 100\%$$

$$\frac{\text{Number of HIV-positive TB patients who meet criteria for and receive ARV}}{\text{Total number of HIV-positive TB patients who meet criteria for ARV}} \times 100\%$$



12. A summary of the steps for conducting HIV counseling and testing for TB patients

Once a patient is diagnosed as having TB:

- The patient receives information about the importance of HIV testing in TB patients. (This information may be obtained from a poster, pamphlet, doctor, TB clinic staff or HIV/AIDS counselor).
- The information required is as follows:
 - Benefits of HIV testing for TB treatment
 - Measures to ensure confidentiality of HIV testing results
 - Emphasis on patient's voluntary consent for HIV testing
 - Time required, and cost needed for HIV testing
- Offer the patient opportunities to ask questions and make decision whether he/she will have his/her HIV status tested.

The patient voluntarily agrees to have an HIV test

- Patient signs consent for HIV testing
- HIV test is performed, and an appointment for informing the test result is made

The patient refuses an HIV test

- Identify causes of refusal
- Provide information that corresponds to the causes

If the patient still refuses the test

- Inform the patient that he/she can request further information should he/she need it, and can have an HIV test whenever he/she changes his/her mind.

Inform the test result to the patient

If the patient does not have HIV infection (HIV-negative)

- Inform the patient about the test result
- Advise the patient to have another HIV test in 3-4 weeks, especially if he/she is at risk
- Review HIV prevention knowledge and promote HIV prevention behaviors
- Recommend an HIV test for the partner of the patient

If the patient has HIV infection (HIV-positive)

- Inform the patient about the test result
- Assess psychological status of the patient after knowing the test result, and provide mental and emotional support to the patient
- Advise the patient about treatment of TB in the presence of HIV co-infection
- Advise the patient about HIV prevention and recommend an HIV test for the partner of the patient
- Recommend participation in the PLWHA self-help group, and give information about organizations or communities providing care for PLWHA
- Advise the patient about HIV management, such as testing for CD4 level, drug regimens for opportunistic infection and ARV





** The photo is authorized for display*

I miss my daughter...

"...My daughter was so unfortunate...

She had her TB cured but unfortunately died of other infections (opportunistic infections). Back then, poor people like us had no money to buy antiretroviral drugs.

Today, in my village, I know many people who have both TB and HIV infections like my daughter but still live a normal life like other ordinary people.

They still can work and live with their families. ... This makes me feel pity for my daughter.... and I miss her.



Part II

Communicating with patients so that they voluntarily accept HIV testing: Real experiences of health care staff with various kinds of TB patients

Please note!

- *The following case studies are written from the real-life experiences of staff from TB clinics, HIV counseling clinics and psychiatric clinics at several hospitals.*
- *To ensure patient confidentiality, all the names appearing in these stories have been changed. Names of the hospitals in which staff who contributed the stories worked are also protected.*



***We support counseling
for HIV testing
for all TB patients.***



"Can grandpa have TB and HIV co-infection although he refused having multiple partners?"

Grandpa Tony, in his early 70's, came to the hospital with Grandma Nancy who tended to his needs very closely. Tony told Mr. Robert, a TB clinic staff that he had had a fever and chronic cough for a month before their visit to the hospital. He also had dyspnea, had lost weight, and had decreased appetite. He was taken to several clinics but his condition did not improve. He was later taken to the provincial public hospital, and the doctor told him that he had pulmonary smear-negative TB. He was referred to a community hospital close to his home to continue his treatment.

Robert, a devoted health worker who was committed to achieving TB control in the district that he worked, noted that there was no information about HIV testing in the referral letter. He therefore began explaining to Tony and Nancy about the importance of HIV testing in TB patients. He gave examples of older TB patients who agreed to have an HIV test and some of them had HIV infection even at their older ages. Robert continued taking a history about Tony's HIV-infection risks. In front of Nancy, Tony strongly refused any risk behaviors in the past. He agreed to have an HIV test because he was confident that he was free from HIV, and this was an opportunity for him to know whether he really was.

Robert recounted that he spent half-an-hour counseling Tony about the HIV testing process. Tony consented to have his blood sample drawn for a test.



The result was revealed-**Tony had HIV infection, in addition to TB**. Tony requested a repeat of the test. Robert suggested Nancy should have an HIV test for herself but she refused. She explained that she does not have risk for HIV infection because she has not had sex with her husband for many years.

Therefore, Robert only obtained another blood sample from Tony and took a past history about HIV-infection risks in more detail. Tony now recalled a Chinese acupuncture he had three years ago, which could be a source of HIV infection by sharing needles with other patients. The second test confirmed the first one-**Tony had HIV infection**. Robert referred him to an HIV/AIDS clinic to be evaluated for possible ARV and opportunistic infection prophylaxis.

Robert promised Tony and his wife that he would not disclose Tony's HIV status to their family and would keep this strictly confidential.

Key points from this case study

- **The only effective way to determine HIV infection is to have an HIV test.**
- **HIV status cannot be determined from the information told by patients--even though they are elderly.**
- **Importantly, just because patients say that they do not have risk behaviors do not mean they have never had any risk behaviors.**



Where health care staff make a great effort, there can be better coverage of HIV testing!



Harry, a 50 year-old man who worked as a general laborer and also as a missionary, came to the hospital due to fever, chronic cough, yellowish sputum, and difficulty breathing for a month. The doctor diagnosed that he had pulmonary TB with positive smear and referred him to Robert, a staff at the TB clinic of the hospital, for counseling for

HIV testing and registration. Robert invited Harry to have a seat and began a confidential conversation.

"For the best interest of all TB patients", Robert began, "the doctor asked me to explain to you about HIV/AIDS and HIV testing because HIV testing is very important for treating TB patients."

"I had an HIV test three years ago, but nothing seemed wrong." Harry responded.

"But that was three years ago. For your best interest, you should have another test today. TB patients who also have HIV infection will receive both TB and HIV treatments. And the treatments today are different from what they were three years ago." Robert explained.

"I am a missionary. I have never had any HIV risk behaviors. Believe me! I don't have AIDS. I have TB because I contracted it from a patient whom I visited for a long time and very frequently. I think there is no need for me to have HIV testing and I don't want another test." Harry was so clear in his decision that Robert gave in to him.

"It's perfectly okay that you don't want to have the test today. However, anytime you have questions about TB and HIV/AIDS, please feel free to ask. And you can always have the test when you come back next time." Robert said.



Two months after TB treatment had been started, Robert asked Harry again about HIV testing. He got the same answer- No.

It was now five months since the start of the TB regimens. Harry came to the TB clinic for his sixth and final month of TB drugs. Robert, who was still not inclined to give up his will on TB and HIV/AIDS counseling, kept pressing .

"It seems your TB treatments have gone so well during the past five months. The hospital wants all TB patients to receive the best care they deserve, so I want to explain to you again about HIV testing. I hope I don't bore you by saying that TB patients need to have an HIV test. This is because the patients will miss certain treatments if we don't know their HIV status. For the confidence of both the doctor and yourself, please consider once again about the benefit of HIV testing."

Harry sat silent for a while, and said:

"That's good. Let's do it to make the doctor and myself confident. But I am wondering whether I can have a test for my blood group when you get my blood sample for an HIV test. I have been wanting to know which blood group I belong to."

With a smile, Robert nodded at Harry's decision, and did not forget to get him to sign to consent the test and assure him about confidentiality. That made Harry smile and confident with the services he received. Importantly, Harry's decision to have an HIV testing that day helped the TB clinic to achieve a 100% coverage of HIV testing for all TB patients.

The test result confirmed that Harry had TB without HIV infection. Robert, however, did not forget to give health education on sustainable HIV prevention to Harry.

Key points from this case study

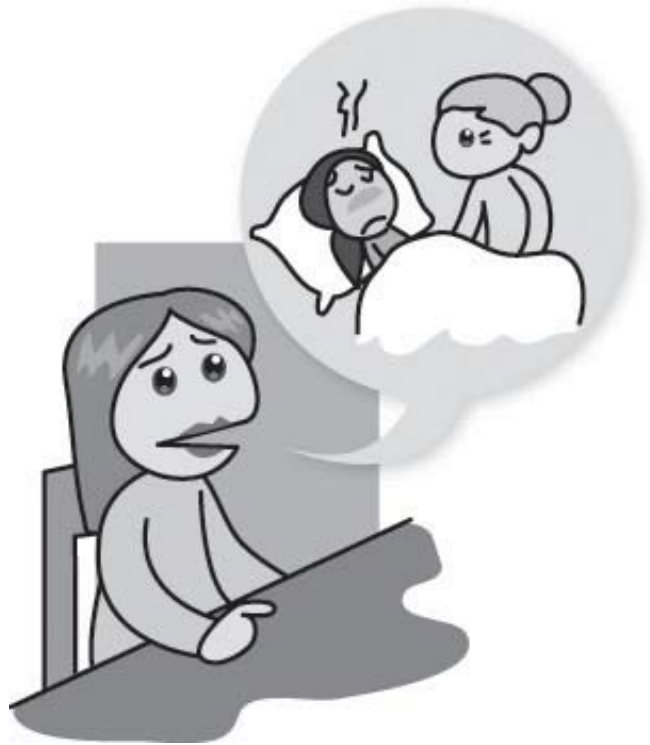
Repeated information about the benefits of HIV testing for TB management and continuous attention given to the patients by staff of the TB clinic can lead to a change in a patient's decision about HIV testing.



The child died due to AIDS...so the mother was afraid of HIV testing.

Sonya, a 55 year-old housewife to her 60 year-old husband, who completed only grade 4 of schooling, was taken to the hospital by her daughter. Sonya complained of coughs, white and cloudy phlegm, chest pain, shortness of breath and weight loss. The doctor diagnosed that she had smear-positive pulmonary TB, and referred her to a nurse for an HIV test. Sonya refused the test and

went home with TB medications that lasted for one week. An appointment was made for the following week.



During her second visit to the hospital, Sonya and her daughter met Ms. Anna, a nurse at the TB clinic. Ms. Anna, whose smiles were always in her heart and on her face and who was dedicated to the care of TB patients, reviewed Sonya's record and found out that she had not had an HIV test. Ms. Anna invited Sonya and her daughter to a room that had no other patients but which was very well ventilated. Ms. Anna began the conversation by explaining to the mother and the daughter about the importance and benefits of HIV testing in all TB patients.

She ended the explanation by saying that:

"HIV testing is entirely a patient's decision. Before having the test, patients can ask questions they have or ask for advice about their worries and concerns."

"No, I won't have the test. ... Please don't test me. I won't have the test no matter what. I need treatment for TB only." Before Ms. Anna could ask her why she refused HIV testing, Sonya broke out in tears leaving Ms. Anna absolutely perplexed about what was going on.



"It's okay Ms. Sonya. Please take it easy. Do you mind waiting outside for a moment? I need to talk to your daughter if I can, please."

Ms. Anna comforted Sonya and offered her tissue papers to dry off her tears and seated her in an area that did not have other patients and told her to wait for ten minutes. A conversation with Sonya's daughter helped Ms. Anna understand the pressure that HIV testing placed on Sonya. Sonya spent almost a year caring for her son who had AIDS at home until he died and left an orphaned grandchild under the care of his grandparents. The sadness was yet to go away; Sonya became ill due to TB. Importantly, Sonya believed that she had HIV infection contracted HIV from her son through the close care she provided for him during an almost a year. She further thought that if she got HIV infection, she would eventually die just like her son. She thought she would feel ashamed if her neighbors knew that she got HIV infection at this age. She was also worried about who would look after her orphaned grandchild after she died. After understanding the causes pressure that HIV testing placed upon Sonya, Ms. Anna invited Sonya back to the room and began another type of discussion.

This time, she placed the emphasis on explaining HIV transmission and correcting misconceptions about contracting HIV through care provision of AIDS patient. In addition, Ms. Anna explained the differences between treatments of TB patients with and without HIV infection, until Sonya's queries were answered. She agreed to have an HIV test at the end of the counseling but asked to go home to collect her courage and come back for the result a week later instead of that same day.

A week later, Sonya and her daughter met Ms. Anna in the same room. The test result said that Sonya did not have HIV infection. She returned home with a smile on her face and a great sense of relief, and was full of motivation to continue her TB regimens until they were completed. For Sonya, her illness was a real crisis, however, it was this crisis that opened up an opportunity for her to understand HIV/AIDS and release the anxieties caused by the misconception that she had contracted HIV during the care she provided to her son who died of AIDS.

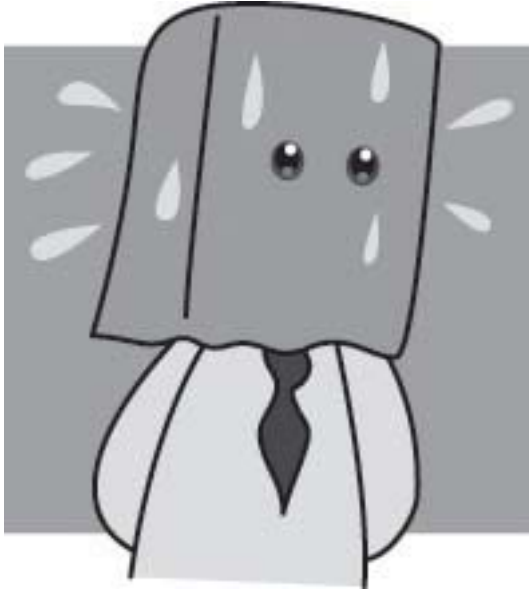
Key points from this case study

- **Misconception about HIV transmission especially among older persons can cause refusal of HIV testing and life-long anxiety about AIDS.**
- **HIV testing for all TB patients offers an opportunity for TB patients to learn and correctly understand HIV/AIDS.**



How can a man who is suspected to be HIV positive, who is also highly respected in the

community, be encouraged to accept HIV testing?



"...How could I look into the face of the villagers and the youths in my village? They respect me for being a good person and teaching others to be good persons. I know that I have contracted HIV...Please don't test my blood."

John was from a hill tribe, and his duty was to teach religion to villagers from various ethnic groups. He was married and had one child. He was educated only up until grade 6, but that was the highest level of education that anyone had attained in his village. Because of this he was able to speak, read and write Thai and several other languages. He had a respectable personality and good looks. He was cleanly dressed and groomed. He looked so handsome that he could act in the movies. But his good looks were a little diminished when he got pulmonary TB and lost body weight. A doctor at one private hospital told him that he had TB. He came to this community hospital because he knew that it took very long to cure TB and he did not have the money to afford medications at the private hospital. It was fortunate that he came to the Sunshine community hospital because at this hospital there was a committed team

on TB control and a policy of HIV counseling for all TB patients. If any TB patient was found to have HIV co-infection, he/she would be cared for in accordance with TB and HIV management standards. Besides, coordination between TB and HIV units was very efficient.

Nurse Lucy (**generally, nurses are called by villagers by the respectful title of "doctor"**) was a nurse at a TB clinic and a TB control coordinator at the district level and among health facilities under The Sunshine Hospital. She was very skilled in HIV/AIDS counseling and very much loved by TB patients from both flatlands and highlands.

Today was the first meeting between her and John. The counseling she delivered, however, resulted in refusal of HIV testing on the grounds that he had already come to



know about his HIV infection from an HIV test done three years before when he applied for work overseas.

"Doctor, please don't put it down in my hospital record that I have HIV infection. ... Otherwise other people will know about this." John begged and looked worried when he saw Nurse Lucy about to document something on the registration record.

"Don't worry. I am just writing that you are not ready for an HIV test today. Please be confident that all the hospital staff here understand their ethical duty to maintain confidentiality of their clients' information. Besides, the HIV test result is recorded through codes, and the test result sheet does not identify a patient's name. If you are not ready for the test today, you can go home and take a rest. We can discuss this again when we meet next week. Please feel free to tell me what you think."

John also refused a referral to a community health center for DOT (Directly Observed Therapy) because he did not want anybody to know that he was sick. Traveling to The Sunshine Hospital for TB medications, in spite of the frequency, was much better than disclosing his illness to the villagers and community health center staff.

One week had passed... John came back to see Lucy at the same TB clinic. Following a conversation about symptoms and side-effects of the TB medications he was taking, Lucy talked about the importance of HIV testing to TB management. John insisted he did not want one. Lucy suggested that John go to an anonymous clinic and talk to nurses

there just in case there might be other confidentiality options concerning HIV testing for him. That is, he could have an HIV test at the anonymous clinic. He again refused on the condition that the anonymous clinic was located near a room in which people living with HIV/AIDS (PLWHA) group did activities together. Because of this, other people might think that he was one of the group members.

"Whether I have or don't have HIV infection, if I walk in there, others will automatically think that I have HIV infection. I know many people in that room. I teach them to be good persons. If they know that I have HIV infection, ... they will think that I am promiscuous. If they know, ...I just don't want to think about it..." Lucy understood his concern and worries, and that he was not emotionally ready for the test. **Even though he received counseling twice, and each time it would last 40-45 minutes, he was still firm on his decision to refuse HIV testing.**

"That's okay. I just had a thought that you might want to have counseling with staff at the anonymous clinic and change your mind for the benefit of the TB treatments. But if you are not ready, it's fine. I hope you take it easy, go home and take a rest. But please don't forget to take your TB medications."

Another week had gone by... John finally decided to have an HIV test. Lucy believed that creating acquaintance and rapport between nurse and patient and making them feel comfortable with each other had helped the patient to express his concern. In addition, reflection on important issues through open-ended questions such as *"You understand that*



other people may not accept you... What do you plan to do when you feel like this?" made the patient feel comfortable. Repeating the importance of HIV testing to the patient during a follow-up meeting and giving opportunity to the patient to review their decision also helped change the patient's decision.

The test result confirmed that John had HIV infection. He was tested for CD4 level and given cotrimoxazole and ARV later. Lucy advised John to consider HIV testing for his wife. The couple went to a private clinic for an HIV test of the wife instead of coming to the Sunshine Hospital. They came back to see Lucy with a test result. **John's wife did not have HIV infection.** The nurse advised the couple to use a condom every time they had sex and for the wife to have another HIV test in 3-4 month's time.

John looked much relaxed today because his wife had not contracted HIV and he knew that he could prevent her from contracting it. His weight increased and that made him look as good as he did before. He took TB medications regularly until he completed the course, and was then under the care of the HIV/AIDS clinic and received ARV. John refused joining the PLWHA group because he did not want others to know that a religion teacher was also infected by a deadly virus. He thanked TB because it resulted in Nurse Lucy giving him information about HIV testing, which in turn led to ARV and his survival until today.

Key points from this case study

- **Giving a patient time to make a decision about HIV testing and repeated information about the benefit of HIV testing to TB management, and good patient-nurse relationship fostered a decision for voluntary HIV testing**
- **The work of TB control can efficiently lead to HIV prevention and care.**



A pretty, single woman with a history of HIV risk behavior who still refused HIV testing

Linda was a young, beautiful, single woman who was as charming as a movie star. She was a public relations officer at a hotel. She came to the hospital on her own complaining of swollen lymph nodes on her neck. She had no cough but was sweating at night and had lost about 3 kilograms. The doctor ordered a sputum smear for TB and an HIV test. Linda agreed to have a sputum smear but refused to have HIV test. The sputum smear was positive. The doctor diagnosed TB of the lungs and lymph nodes.

Today was the second visit to the hospital by Linda. She was also on her own like her first visit.

"Good morning Ms.Linda" said Nurse Celina in a friendly manner. She was a little less beautiful than the patient but of similar age. She went on:

"Last week did the doctor tell you that you have TB and why you need an HIV test?"

"Yes, the doctor explained this to me and I know I should get a test. But I can't deal with it; so I didn't have a test." Linda replied sadly

"You said you can't deal with it; what do you mean?" Celina asked gently.

"I am sure that I have HIV infection but I don't know what to do if my test is positive."

"Why are you so sure that you have HIV infection?"

"I live on my own and am still single. So I chose to work the night shift at the hotel. Sometimes the hotel guests ask me to have a drink with them, and I do. Sometimes, I sleep with them."

Celina gave Linda time to express her feelings.



At the end, an explanation on why this patient refused an HIV test despite the fact that she was at a great risk of contracting HIV was found. It was because she was still single and stressed about how to break this news to her family.

"If you have a test and the test result is positive, there is no rush for you to tell anyone. Our hospital has measures to make sure that your information is strictly confidential. But the most important thing is that the quicker you know of your test result, the more appropriate the advice and care you will receive."

Linda liked the phrase *"there is no rush for you to tell anyone"*. After discussing with the nurse for almost an hour, she decided to have her HIV status tested that day. The test result, as expected, was that Linda had HIV infection.

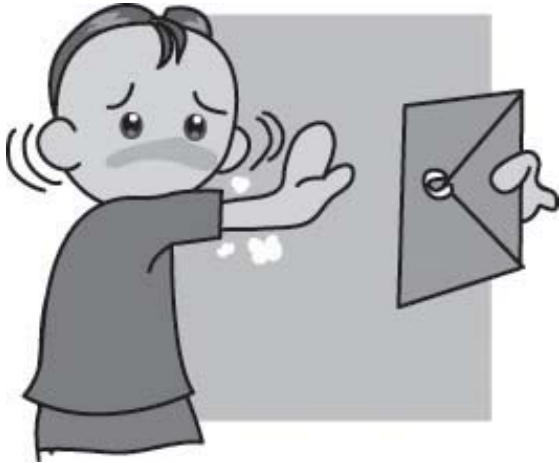
Linda today is still young, beautiful and single but was no longer at risk of contracting more HIV. She completed her TB regimens and was on ARV. She received condoms whenever she came to the hospital. Until today, she has never disclosed her HIV status to anybody.

Key points from this case study

- A patient may not be afraid of their HIV infection but is worried that others will know that he/she has HIV infection.
- Information about confidentiality measures and assurance of "no rush" in disclosing the patient's HIV status to others can increase voluntary HIV testing.



"Yes. I can accept HIV testing ... but please do NOT let me know the result!"



"Supervisor Jenny, help me, please. I have a male TB patient here. At first, he didn't want to have an HIV test; he said he had no risks. Later he said he would have the test but would not hear the result."

That was a telephone call from a morning shift nurse of a medical ward at one hospital asking for a consultation from Jenny, a psychiatric nurse at this same hospital. Thirty-five year old Mr. Eddy was the patient who caused headaches for the nurses on the ward. He was employed at one of government units in the city. Fever, fatigue, weight loss and cough brought him to the hospital. The doctor admitted him to the ward. Sputum smear for TB was investigated and counseling for HIV/AIDS and HIV testing was given. The doctor diagnosed him of having smear-positive pulmonary TB.

Jenny spent almost two hours counseling Eddy. She learned that Eddy was a widower with one young kid. His wife died of cancer of the lymph node many years ago. At the beginning of the counseling, Eddy denied any HIV/AIDS risk factors given that, as he said, he had not had sex with any woman since the death of his wife. But he finally admitted that he did have the risk because he once had sex with a woman (a sex worker) without using a condom.

Eddy was not prepared for an HIV test, and therefore overwhelmed with his illness. He was concerned about his child whose mother had passed way. He did not see how the illness he had was related to HIV/AIDS. He was worried that if he had HIV infection he would die. He was also worried that if other people and his work colleagues learned about his HIV infection, they would feel disgusted toward him, and he would be fired and could not raise his child.



Nurse Jenny's tips

Jenny used the following techniques during counseling with Eddy

1. She gave Eddy the opportunity to express his worries and concerns to allow him to hear what he was thinking and worrying about while Nurse Jenny helped reflect on his thoughts from time to time
2. She asked Eddy to tell his own views on HIV/AIDS and HIV testing, and she offered other views in her role as a nurse, and allowed him to make his own decision whether he would or would not have the test
3. She helped Eddy to reflect on what really was best for him: (a) keeping his HIV status unknown and receiving no treatments related to HIV/AIDS should he need one, and (b) changing his views on the benefits of HIV testing and receiving treatments
4. She helped Eddy to see the value of his life in the face of HIV infection, that is, he could still live his life, look after his child and contribute to the society in his own ways.

With these techniques, Eddy's confusions were dispelled. He knew what he wanted and what he should be doing. He finally agreed to have a voluntary HIV test and to hear the result no matter how it would turn out.

Key points from this case study

Assisting a patient to look at problems from different perspectives, for example, seeing both positive and negative sides of HIV testing and understanding how he/she viewed the problem, is a critical success factor for voluntary HIV testing.



HIV-testing first...counseling later?

If there were an award to recognize hospital staff who promoted human rights, Nurse Wendy would be the one who would receive such an award. Wendy was so committed to observing her professional codes of conduct related to counseling services that she would not inform an HIV test result to her patients if they did not receive HIV test counseling or information before they had the test, or if they did not sign the consent for the test. She committed herself to this professional value and treated every single patient equally even if he was a prisoner who was stigmatized and looked down on by the society.



Jack was a male prisoner and single. He had a history of having sexual intercourse with women without a condom. Jack never went to school, and was one of those who were in a vicious cycle of poverty, drug addiction and crime. In the prison, Jack was classified as a well behaved prisoner despite having to do time for a very serious criminal offence (as a hired gunman, he had slain a foreigner). His jail term had been reduced many times until he had half-a-year to complete his term and be freed. Jack was seriously ill. He had a fever, cough and shortness of breath, and was taken to a provincial hospital by the prison staff. During his stay in the hospital, a nurse took his blood sample for an HIV test.

The investigation results were that Jack had TB as well as HIV infection. But he had no idea that the nurse took his blood sample for an HIV test! He understood that the sample was for general blood tests.

Two months after the first blood test, there was a report of an HIV test result but no counseling for the HIV test was documented. And, Jack's signature that endorsed his consent to the test was not found anywhere in the record. Nurse Wendy therefore spent one hour and ten minutes counseling Jack and obtained the test as if this were the first time for him to have the test. Wendy's effort showed that she respected the rights of the patient and deserved praises.



What happened during those one hour and ten minutes spent on HIV/AIDS counseling with a prisoner?

- Even though he was a prisoner who admitted use of drugs and having sex with sex workers in the past, and was aware of his risks of contracting HIV, and he was certain that he had HIV infection, Jack had several worries regarding the test. He was concerned that his friends in the prison would make fun of and feel disgusted about him if they learned about his HIV infection. He was worried that if the prison wardens or his step mother learned about his infection, they would also feel disgusted. Besides, he thought that anybody with HIV infection would certainly die.
- With accumulated skills and positive and non-discriminatory attitude towards patients, Nurse Wendy was able to alleviate Jack's worries by reflecting on his words, giving him information about the benefits of HIV testing for TB management and health maintenance, and assisting him to think positively about HIV/AIDS and HIV testing. This way of thinking made a prisoner like Jack able to create his dream, inspiring him to do good after his term at the prison, and to maintain his health even with HIV infection. Moreover, he better understood how HIV was transmitted.
- Subsequently, the good news that the prison wardens reported to Nurse Wendy was that Mr. Jack took good care of his health and took his TB medications regularly. He was one of the prisoners who will be eligible for access to ARV.

Key points from this case study

Non-discriminatory counseling service and respect toward patients, no matter who they are; poor, uneducated or discriminated by the society, foster the behaviors that benefit TB treatments and HIV prevention.



"Will I lose hundreds US dollars income if I know my HIV testing result?": The worry of a man who sells sex to a man



"If my test result is positive, what should I do? If I tell my foreign partner that I have HIV infection, he will break up with me and no longer give me 250 US\$ a month. What should I do?"

Paul was a single man in his late twenties with a good facial skin complexion who had never had sex with a woman. He sighed with worries while receiving counseling about HIV testing for TB patients from Nurse Amada. Paul had finished sixth grade, looked intelligent and appeared to be a quick learner. He earned a living as a general laborer, in order to be able to look after his mother. Sometimes he was out of work, for example when he was sick. He came to the hospital for his late-afternoon fever, chronic cough, white cloudy phlegm, chest pain, feeling out of breath, fatigue and significant weight loss. The doctor ordered a sputum smear and a blood sample for an HIV test.

Before coming to the hospital today, Paul told the nurse that a community health center staff visited him at home and gave him some advice about HIV testing to see whether he had HIV infection.

"Before I came to the hospital, my mother and I had already made up our mind that I had gotten such a disease." Said Paul hopelessly. He used "such a disease" which was a villagers' common term for AIDS.

"Why do you and your mother think that you've got HIV infection?" Asked Amada.

"I know myself because I have been having sex with a foreigner for a long time. I didn't use condoms though, at the beginning of



our relationship. My mom says that if I have HIV, she will not abandon me and will look after me."

Paul told Amada that he had sex with Peter, a western man, who came to Thailand once a year but sent him 250 US\$ every month. During Paul's episode of illness, Peter was not in Thailand. The nurse spent about 45 minutes counseling Paul. She found out that he had learned about HIV transmission and HIV testing from community health staff who visited him at home. He was aware of his HIV risks due to his homosexual behaviors. Paul's main concern if his HIV test turned out to be positive was not for himself. His main concern was: *How would he tell Peter about this... What would happen if Peter knew?... Peter would break up with him and he and his mother would be in a very difficult situation because he was ill from a deadly disease, and would be out of work and lose his monthly pay from Peter.*

Amada used various counseling techniques with Paul, for example, providing information, listening, reflecting, and summarizing the information for him to make his own decision about revealing the test result to his partner if the result was positive. Below are some sample sentences that Amada used to assist Paul in making a decision about whether he would tell his partner of the HIV test result.

"Once you have the knowledge, will you tell your partner?"

"If you don't tell him, how will he feel?"

"Will he get upset if he knows that he might have already gotten HIV, but that you did not tell him, and that you might be the person who gave him HIV?"

"If you were him, how would you feel?"

Paul finally agreed to have an HIV test and decided to tell Peter the truth when he comes to Thailand next time. Paul said that the reason he would tell Peter was that he felt pity for him and wanted him to have the same opportunity for ARV just as Paul would.

The test results were as expected. Paul had TB and HIV co-infection. Nobody knows whether he will tell Peter when they meet next time and whether he will use a condom every time he has sex. But one thing is certain-HIV testing gives patients access to ARV, as in the case of Paul who has completed his TB treatments and has been on ARV until today. His health and quality of life are maintained. He works just like other ordinary people.

"It's alright even if I don't have 250 US\$ from him every month because I am healthy now. I have a job and earn my mother and myself a living. But I want Peter to have an HIV test so that he can have ARV and be healthy like me." Paul told this to Amada many months after he had completed his TB treatments. But he still comes back to the hospital regularly for ARV. He is confident about the benefits of HIV testing to health maintenance.

Key points from this case study

- **What really worried this patient was not about hearing the test result, but about how to tell his partner about the result.**
- **Community health staff who made a home visit had an important role in giving initial information on counseling on TB and HIV/AIDS to this patient.**





How did it happen?

A person was tested for HIV and received HIV-related medicine but was not informed of his HIV status.

“Again?” Nurse Amy, whose face was normally filled with smiles looked less happy than usual because she had to give a “reverse” counseling about HIV/AIDS for one TB patient.

A reverse counseling in the present case study happened because a provincial hospital had already done an HIV test and started medications for HIV for this patient but the patient was not aware of what he had been tested for and what medications he was taking! A case like this was quite dissatisfying for a person who truly respected patient rights like Amy. To bring back her smiles, she had to give counseling about HIV/AIDS to all TB patients, including Billy, this particular patient who was a drug user.

Billy was a single man who was close to thirty years old but looked as though he were close to forty because of heavy smoking and drug addiction which made him look older than he was. He worked as a general laborer after completing junior high school. His relatives took him to the hospital because he had fever, fatigue, occasional confusion, abdominal pain, abdominal distension despite his skinny body, and weight loss of

four kilograms. He was admitted to the hospital and given antibiotics but had not improved. He suffered mental confusion, could not eat, and had nausea and vomiting. The doctor referred him to a provincial hospital for further investigations. Billy was hospitalized at the provincial hospital for a week and referred back to the community hospital that made the first referral.

“The doctor told me to take this referral letter with me to this hospital.” Billy, who still looked tired and thin but whose abdominal conditions were much improved, handed the letter to Nurse Amy. In the letter, Billy was diagnosed with TB peritonitis by a doctor at the provincial hospital, but nothing about HIV status was mentioned. Nurse Amy, however, noted that the patient was prescribed cotrimoxazole and antiretroviral drugs. She believed that Billy had HIV co-infection.

Amy phoned a TB clinic at the provincial hospital for more information, and discovered that Billy had HIV infection but did not have any HIV/AIDS counseling. She planned a counseling for Billy. Knowing that it would be no use to counsel the patient while he was not physically fit and able to concentrate on the counseling, Amy started the first counseling session one month later. That day, after making an assessment that the patient was ready, she spent almost an hour with the patient, in which she did the following:

- Providing knowledge about TB and explaining the link between TB and HIV/AIDS
- Metaphorically comparing TB-related illness to traveling, and a TB patient with HIV co-infection to traveling on a road with holes-that is, if we avoid the holes, we will not have an accident on our way and will get to our destination safely. When TB patients are found to have HIV co-infection and have both diseases managed concurrently, the chance of dying from HIV then becomes smaller, TB can be cured, and they can live a long life.
- Assuring the patient that all of his information would be kept confidential, and that if he had HIV infection, he would have a better understanding of his illness and take proper care of his health.

Billy, however, initially refused an HIV test because he was not one-hundred percent mentally ready and asked for time to think about this at home. It seemed that Billy was like many other HIV patients, who were well aware of their risks related to HIV but were not ready for an HIV test because they could not cope with it. Billy knew his risks because he used injection drugs and many people in his gang had already died. Besides, he was afraid that his parents could not accept him and that he would die like his friends. Nonetheless, after receiving a second counseling session, he agreed to have the test and was ready to hear the result himself. Billy was one of the TB patients with HIV co-infection who received both TB and HIV treatments. He is still living and has access to ARV.

Nurse Amy smiled a big smile again. However, she did not hope for frequent "reverse" counseling sessions because it is very stressful for counselors like her to deliver such sessions.

Key points from this case study

Nursing staff who pay attention to patients' medical information and coordination between referral hospitals can help TB patients with HIV co-infection like the one in this case study to have access to antiretroviral drugs and HIV/AIDS health care services.



Annex

- 1. Interim Policy on Collaborative TB/HIV Activities**
- 2. The International Standards for Tuberculosis Care**
- 3. Four types of HIV testing addressed by UNAIDS and WHO**
- 4. Questions and Answers about TB/HIV**
- 5. The use of antiretroviral, cotrimoxazole and preventive therapy for opportunistic infection in HIV-positive TB patients**

Annex 1

Interim Policy on Collaborative TB/HIV Activities

Collaborative TB/HIV activities,
recommended by World Health Organization (WHO, 2004)

A. Establish the mechanisms for collaboration

- A.1 Set up a coordinating body for TB/HIV activities effective at all levels**
- A.2 Conduct surveillance of HIV prevalence among tuberculosis patients**
- A.3 Carry out joint TB/HIV planning**
- A.4 Conduct monitoring and evaluation**

B. Decrease the burden of tuberculosis in people living with HIV/AIDS

- B.1 Establish intensified tuberculosis case-finding**
- B.2 Introduce isoniazid preventive therapy**
- B.3 Ensure tuberculosis infection control in health care and congregate settings**

C. Decrease the burden of HIV in tuberculosis patients

- C.1 Provide HIV testing and counseling**
- C.2 Introduce HIV prevention methods**
- C.3 Introduce cotrimoxazole preventive therapy**
- C.4 Ensure HIV/AIDS care and support**
- C.5 Introduce antiretroviral therapy**

Source: WHO. Interim Policy on Collaborative TB/HIV Activities. Geneva: WHO, 2004.
http://www.who.int/hiv/pub/tb/en/Printed_version_interim-policy_2004.pdf



Annex 2

The International Standards for Tuberculosis Care

The international leading technical organizations for tuberculosis such as WHO, the International Union Against Tuberculosis and Lung Disease, and US-CDC endorsed the International Standards for Tuberculosis Care in 2006. Of the total 17 items on the standards of care, the 12th and the 13th items address the standards of care for TB associated with HIV/AIDS which include HIV counseling and testing for TB patients.

The 17 headlines of the Standards of Tuberculosis Care are:

Standards for Diagnosis

Standard 1. All persons with otherwise unexplained productive cough lasting two-three weeks or more should be evaluated for tuberculosis.

Standard 2. All patients (adults, adolescents, and children who are capable of producing sputum) suspected of having pulmonary tuberculosis should have at least two and, preferably, three sputum specimens obtained for microscopic examination. When possible at least one early morning specimen should be obtained.

Standard 3. For all patients (adults, adolescents, and children) suspected of having extra-pulmonary tuberculosis, appropriate specimens from the suspected sites of involvement should be obtained for microscopy and, where facilities and resources are available, for culture and histopathological examination.

Standard 4. All persons with chest radiographic findings suggestive of tuberculosis should have sputum specimens submitted for microbiological examination.

Standard 5. The diagnosis of sputum smear-negative pulmonary tuberculosis should be based on the following criteria: at least three negative sputum smears (including at least one early morning specimen); chest radiography findings consistent with tuberculosis; and lack of response to a trial of broad-spectrum antimicrobial agents. (NOTE: Because the fluoroquinolones are active against *M. tuberculosis* and, thus, may cause transient improvement, they should be avoided). For such patients if facilities for culture are available, sputum cultures should be obtained. In persons with known or suspected HIV infection the diagnostic evaluation should be expedited.



Standard 6. The diagnosis of intrathoracic (i.e. pulmonary, pleural, and lymph node [mediastinal or hilar]) tuberculosis in symptomatic children with negative sputum smears is based on the finding of chest radiographic abnormalities consistent with tuberculosis, and either a history of exposure to an infectious case or evidence of tuberculosis infection (positive tuberculin skin test or interferon gamma release assay). For such patients, if facilities for culture are available, sputum specimens should be obtained (by expectoration, gastric washings, or induced sputum) for culture.

Standards for Treatment

Standard 7. Any care provider treating a patient for tuberculosis is assuming an important public health function and responsibility. To fulfill this responsibility the practitioner must prescribe an appropriate regimen and also be capable of assessing the adherence of the patient to the regimen and addressing poor adherence when it occurs. By so doing the provider will ensure adherence to the regimen until treatment is completed.

Standard 8. All patients (including those with HIV infection) who have not been treated previously should receive an internationally accepted first line treatment regimen using drugs of known bioavailability. The initial phase should consist of two months of isoniazid, rifampicin, pyrazinamide and ethambutol.* The preferred continuation phase consists of isoniazid and rifampicin given for 4 months. Isoniazid and ethambutol given for 6 months is an alternative continuation phase regimen that may be used when adherence cannot be assessed but is associated with a higher rate of failure and relapse, especially in patients with HIV infection. The doses of antituberculosis drugs used should conform to international recommendations. Fixed dose combinations of two (isoniazid and rifampin), three (isoniazid, rifampin, and pyrazinamide) and four (isoniazid, rifampin, pyrazinamide, and ethambutol) drugs are highly recommended, especially when medication ingestion is not observed.

**Ethambutol may be omitted in the initial phase of treatment for adults and children who have negative sputum smears, do not have extensive pulmonary tuberculosis or severe forms of extra-pulmonary disease and who are known to be HIV negative*

Standard 9. To foster and assess adherence, a patient-centered, gender-sensitive, age-specific approach to treatment support, based on the patient's needs and mutual respect between the patient and the provider should be developed for all patients. The patient-centered approach should draw on the full range of recommend interventions and available support services and should include patient counseling and education. A central element of the patient-centered strategy is the use of measures to assess and promote adherence to the treatment regimen and address poor adherence when it occurs. These measures should be tailored to the individual patient's circumstances and be mutually acceptable to the patient and the provider. Such measures



may include direct observation of medication ingestion (directly observed therapy-DOT) by a treatment supporter who is acceptable and accountable to the patient and to the health system.

Standard 10. All patients should be monitored for response to therapy, best judged in patients with pulmonary tuberculosis by follow-up sputum microscopy (two specimens) at least at the time of completion of the initial phase of treatment (two months), at five months, and at the end of treatment. Patients who have positive smears during the 5th month of treatment should be considered as treatment failures and have therapy modified appropriately (see standards 14 and 15). In patients with extra-pulmonary tuberculosis and in children, the response to treatment is best assessed clinically. Follow-up radiographic examinations are usually unnecessary and may be misleading.

Standard 11. A written record of all medications given, bacteriologic response, and adverse reactions should be maintained for all patients.

Standard 12. In areas with a high prevalence rate of HIV in the general population where tuberculosis and HIV are likely to co-exist, HIV counseling and testing is indicated for all tuberculosis patients as part of their routine management. In areas with lower prevalence rates of HIV, HIV counseling and testing is indicated for tuberculosis patients with symptoms and/or signs of HIV-related conditions, and in tuberculosis patients having a history suggestive of high risk of HIV exposure.

Standard 13. All patients with tuberculosis and HIV infection should be evaluated to determine when they should receive antiretroviral therapy. Appropriate arrangements for access to antiretroviral drugs should be made for patients who meet indications for treatment. Given the complexity of co-administration of anti-tuberculosis treatment and antiretroviral therapy, consultation with a physician who is expert in this area is recommended before initiation of concurrent treatment for tuberculosis and HIV infection, regardless of which disease appeared first. However, initiation of treatment for tuberculosis should not be delayed. Patients with tuberculosis and HIV infection should also receive cotrimoxazole as prophylaxis for other infections.

Standard 14. An assessment of the likelihood of drug resistance, based on history of prior treatment, exposure to a possible source case having drug resistant organisms, and the community prevalence of drug resistance, should be obtained for all patients. Patients who fail treatment and chronic cases should always be assessed for possible drug resistance. For patients in whom drug resistance is considered to be likely, culture and drug susceptibility testing for isoniazid, rifampin, and ethambutol should be performed promptly.



Standard 15. Patients with tuberculosis caused by drug-resistant (especially MDR) organisms should be treated with specialized regimens containing second-line anti-tuberculosis drugs. At least four drugs to which the organisms are known or presumed to be susceptible should be used and treatment should be given for at least 18 months. Patient centered measures are required to ensure adherence. Consultation with a provider experienced in treatment of patients with MDR tuberculosis should be obtained.

Standards for Public Health Responsibility

Standard 16. All providers of care for patients with tuberculosis should ensure that close contacts (especially children under 5 years of age and persons who are HIV infected) to patients with infectious tuberculosis are evaluated and managed in line with international recommendations. Children under 5 years of age and persons with HIV infection who have been in contact with an infectious case should be evaluated for both latent infection with M. tuberculosis and for tuberculosis.

Standard 17. All providers must report both new and retreatment tuberculosis cases and their treatment outcomes to local public health authorities, in conformance with applicable legal requirements and policies.

Source: Tuberculosis Coalition for Technical Assistance. International Standards for Tuberculosis Care (ISTC). The Hague: Tuberculosis Coalition for Technical Assistance, 2006.
(http://www.who.int/tb/publications/2006/istc_report.pdf)



Annex 3

Four types of HIV testing addressed by UNAIDS and WHO

In June 2004, UNAIDS and WHO recommended the following four types of HIV testing:

- 1) Voluntary counseling and testing.
- 2) Diagnostic HIV testing
- 3) Routine HIV testing
- 4) Mandatory HIV screening

Each type can be distinguished as the followings:

1) Voluntary counseling and testing

Client-initiated HIV testing to learn HIV status provided through voluntary counseling and testing, remains critical to the effectiveness of HIV prevention. UNAIDS/WHO promote the effective promotion of knowledge of HIV status among any population that may have been exposed to HIV through any mode of transmission. Pre-testing counseling may be provided either on an individual basis or in group settings with individual follow-up. UNAIDS/WHO encourage the use of rapid tests so that results are provided in a timely fashion and can be followed up immediately with a first posttest counseling session for both HIV-negative and HIV- positive individuals.

2) Diagnostic HIV testing

This HIV testing approach is indicated whenever a person shows **signs** or **symptoms** that are consistent with HIV-related disease or AIDS to aid clinical diagnosis and management. This includes HIV testing for all tuberculosis patients as part of their routine management.



3) Routine HIV testing

A routine offer of HIV testing by health care providers should be made to all patients being:

- assessed in a **sexually transmitted infection** clinic or elsewhere for a sexually transmitted infection - to facilitate tailored counseling based on knowledge of HIV status
- seen in the context of pregnancy - to facilitate an offer of **antiretroviral prevention of mother-to-child transmission**
- seen in clinical and community based health service settings where **HIV is prevalent and antiretroviral treatment is available** (injecting drug use treatment services, hospital emergencies, internal medicine hospital wards, consultations etc.) but who are **asymptomatic**.

Explicit mechanisms are necessary in provider-initiated HIV testing to promote **referral to post-test counseling services** emphasizing prevention, for all those being tested, and to **medical and psychosocial support**, for those testing positive. The basic conditions of confidentiality, consent and counseling apply but the standard pre-test counseling used in VCT services is adapted to simply ensure informed consent, without a full education and counseling session. The minimum amount of information that patients require in order to be able to provide **informed consent** is the following:

- the clinical benefit and the prevention benefits of testing
- the right to refuse
- the follow-up services that will be offered and
- in the event of a positive test result, the importance of anticipating the need to inform anyone at ongoing risk who would otherwise not suspect they were being exposed to HIV infection

For provider-initiated testing, whether for purposes of diagnosis, offer of antiretroviral prevention of mother-to-child transmission or encouragement to learn HIV status, patients retain the right to refuse testing, i.e. to 'opt out' of a systematic offer of testing. *(HIV testing without consent may be justified in the rare circumstance in which a patient is unconscious, his or her parent or guardian is absent, and knowledge of HIV status is necessary for purposes of optimal treatment.)*



4) Mandatory HIV screening



UNAIDS/WHO support mandatory screening for HIV and other blood borne viruses of all blood that is destined for transfusion or for manufacture of blood products. Mandatory screening of donors is required prior to all procedures involving transfer of bodily fluids or body parts, such as artificial insemination, corneal grafts and organ transplant.

UNAIDS/WHO do not support mandatory testing of individuals on public

health grounds. Voluntary testing is more likely to result in behavior change to avoid transmitting HIV to other individuals. Recognizing that many countries require HIV testing for immigration purposes on a mandatory basis and that some countries conduct mandatory testing for pre-recruitment and periodic medical assessment of military personnel for the purposes of establishing fitness, UNAIDS/WHO recommend that such testing be conducted only when accompanied by counseling for both HIV-positive and HIV-negative individuals and referral to medical and psychosocial services for those who receive a positive test result.

Source: www.who.int/entity/rpc/research_ethics/hivtestingpolicy_en_pdf.pdf



Annex 4

Questions and Answers about TB/HIV

Frequently asked questions (Q) and answers (A) about aetiology and transmission of TB

Q What causes TB?

A TB is caused by bacteria called “*Mycobacterium tuberculosis*”.

Q How did I contract TB? and from where did I get TB? No one in my family has TB and I have never known of anyone who has TB.

A The bacteria that causes TB are very small and are visible only through a microscope. The bacteria are mostly found in the sputum of TB patients who are in the infectious stage but have received no TB treatment. The bacteria will be present in the air after the patients cough or sneeze. Generally, the bacteria will be killed in five minutes after direct exposure to sunlight or UV light. But these bacteria can survive for up to one year in a dark, moist and poorly ventilated area. Therefore you can contract TB from others (and in other places) even though no one in your family has TB.

Q How do “TB infection” and “TB disease” differ?

A They are very different (see table below).

	TB infection	TB disease
Having tubercle bacilli in the body?	Yes	Yes
Tuberculin Skin Test	Positive	Positive
Chest X-ray	Normal	Usually abnormal
Sputum examination and culture	Negative	Positive
Having symptoms?	No symptoms	Having symptoms such as fever, cough, weight loss
Infectious?	Can NOT transmit TB to others	Often infectious and can transmit TB to others, especially before starting TB treatment

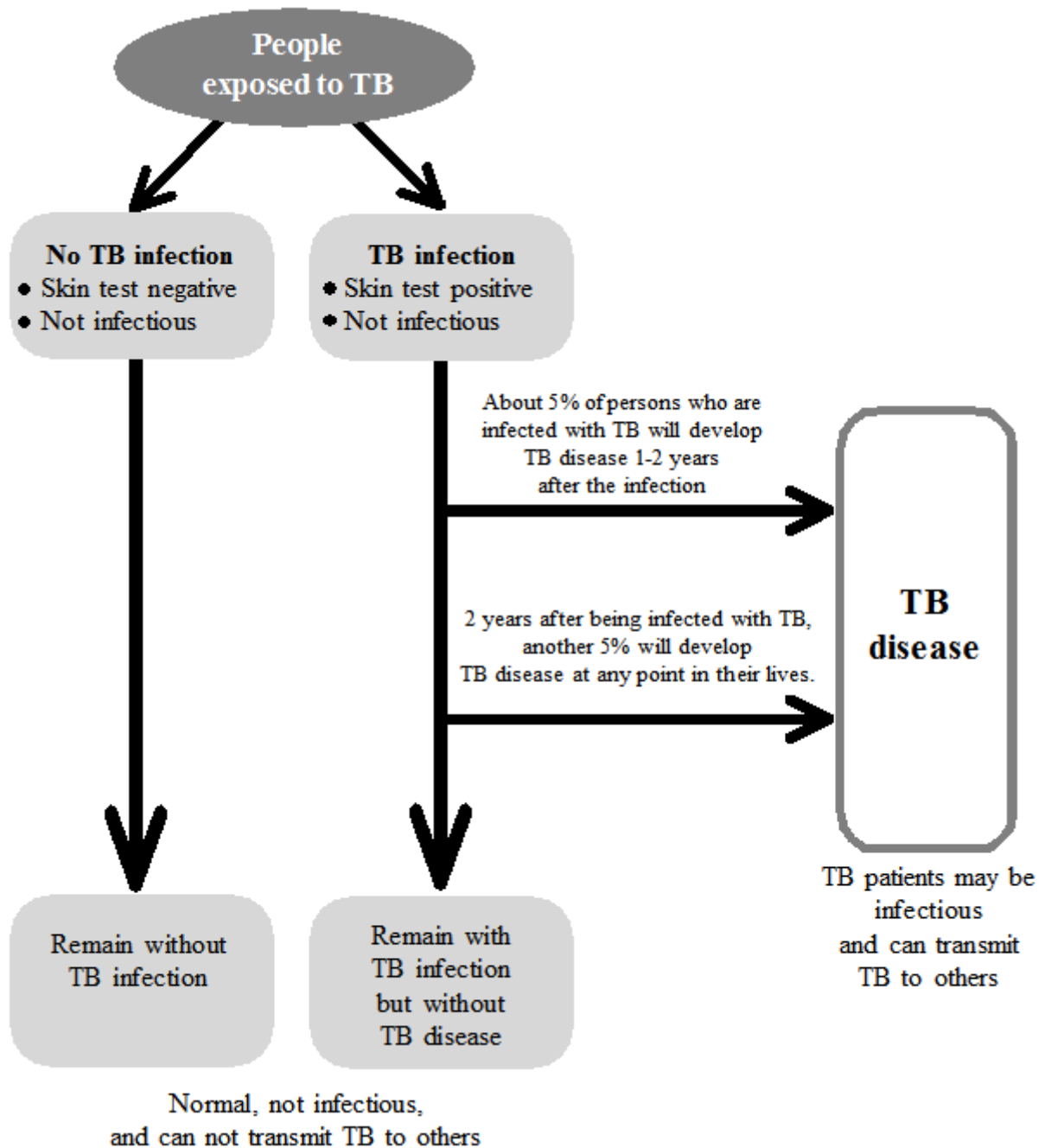
Source: Modified from Self-Study Modules on Tuberculosis. CDC, Atlanta, 1995, Module 1, p.12.

“TB infection” is different from “HIV infection” because patients who have HIV infection can transmit HIV to others despite having no symptoms.



Q What will happen if people are exposed to TB? Will everyone who is exposed to TB develop TB disease?

A If you study the flowchart below, you will understand that TB is not an acute communicable disease. It takes a year or two to develop from TB infection to TB disease and only 10% of patients with TB infection will develop TB disease.

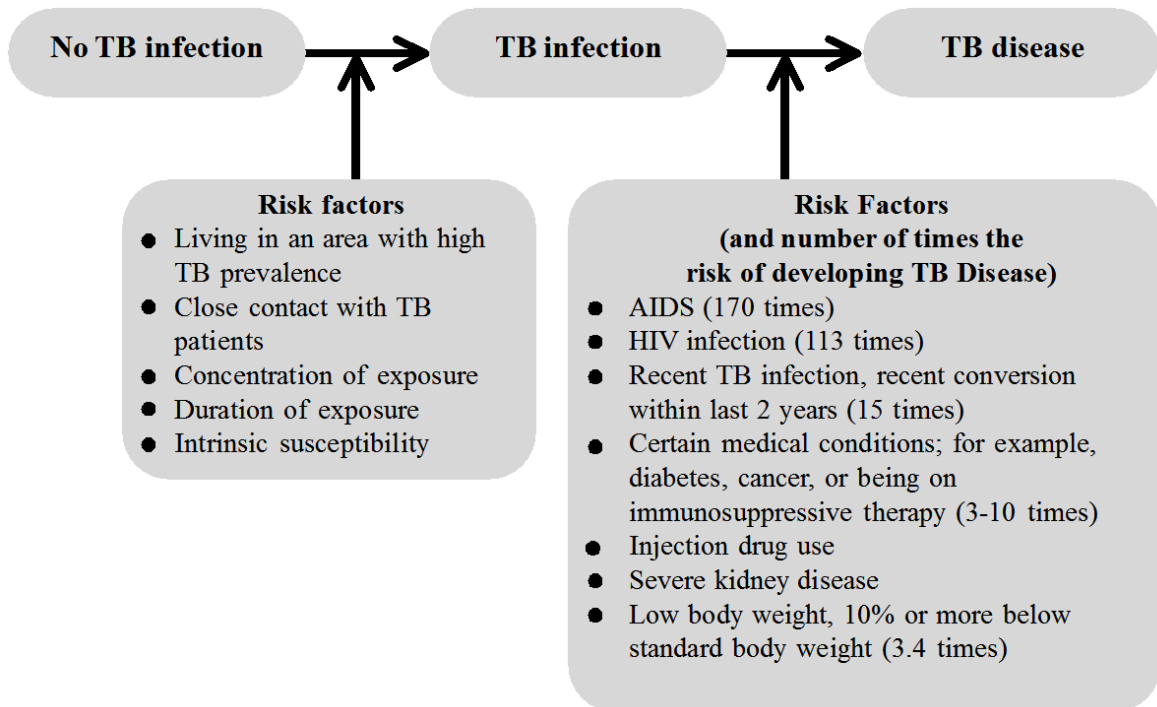


Source: Modified from Self-Study Modules on TB, CDC, Atlanta, 1995, Module 1, p.18.



Q Why do some people (such as HIV infected people) easily develop TB disease once they are infected with TB, while others have never had TB infection or have TB infection which does not develop into TB disease? What are the risk factors?

A The diagram below explains "risk factors" which make it more likely for people who are not infected with TB to become infected with TB, and "risk factors" which make it more likely for TB infection to progress to TB disease. Obviously, HIV/AIDS is the strongest risk factor to increase progression from TB infection to TB disease.



Source: Self-Study Modules on TB, CDC, Atlanta, 1995 and Reichman L, Hershfield ES. (Editor) Tuberculosis: A Comprehensive International Approach, 1993

Q Are all TB patients equally effective in spreading TB?

A TB can attack many body organs but the most common site where it attacks is the lung, and it is from the lung that TB can be infectious and transmittable to other people. Patients with extra-pulmonary TB disease do not usually spread TB to others. Characteristics of patients who can spread TB most effectively are as follows: pulmonary TB with sputum smear-positive patients, especially those with lung cavities (as indicated in a chest x-ray), patients who strongly and frequently cough, patients who cough without covering their mouth and patients who are still in the first 2-3 weeks of their TB treatments. Pediatric patients are less effective than adult patients at spreading TB.



FAQ about diagnosis and management of TB disease

Q If a young man/woman in a community has chronic cough, feels fatigued and has lost his/her weight, what illness is he/she likely experiencing?

A Do not be automatically assume that the patient has HIV/AIDS and do not define every person who has these symptoms as having HIV/AIDS. Pulmonary TB disease shares many symptoms with HIV/AIDS. If you find someone who has been coughing for more than three weeks, advise him/her to have a sputum examination and chest x-ray. People at young ages can experience TB disease-it does not have to be HIV/AIDS all the time.

Q How is a diagnosis of pulmonary TB done?

A Sputum examination or smear (not saliva examination) is the easiest way to determine TB disease. If the bacteria are not found in the sputum, clinical manifestations and chest x-ray may be used to establish the diagnosis.

Q How do I collect a sputum sample for a smear?

A Correct sputum collection techniques help improve accuracy of the diagnosis. The best sputum is the sputum collected in the morning immediately after you get up because it should contain the most concentrated bacteria. After you get up, rinse your mouth with plain water, and then:

- Take 2-3 deep breaths. Before the breath that you will use to clear your throat, take a deep breath and hold it. Then clear your throat and spit the sputum into a container and tightly cover it with the lid. Clean the sputum that may be left on the container. Put the container in a plastic bag, and tie the opening of the bag tightly.
- Send the sample to the lab immediately. If you cannot do so, put the bag in the regular chamber of a refrigerator (not the freezer). The sample should not be kept for more than one week.



Q Can TB disease be cured? What if it is not treated?

- A
- TB disease can be cured even with HIV co-infection. Patients must take medications for at least six months.
 - If TB disease is not treated, it can result in death of the TB patient with or without HIV co-infection.
 - A patient with smear-positive pulmonary TB disease who does not receive TB treatment can spread TB to 10-15 people within one year.

Q What should TB patients avoid?

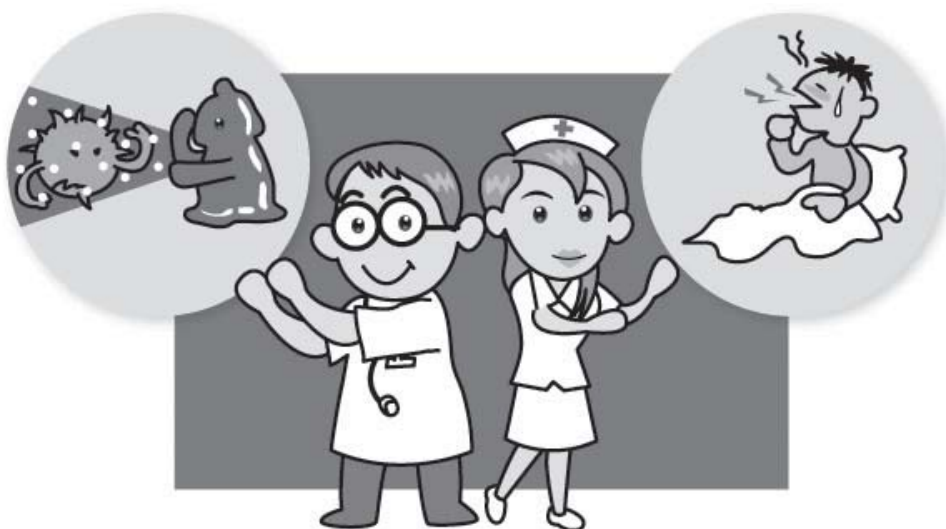
- A
- Even healthy people should avoid the following items. It is therefore very important that TB patients avoid them.
- Smoking or staying close to people who are smoking
 - Alcohol or alcoholic drinks
 - Uncooked meats

Q Is there a need for isolating a bedroom, spoons or drinking glasses?

- A
- In fact, TB patients have already spread the bacteria to their family and others before their TB diagnosis is made. But once TB disease is known, the patient should sleep in a separate bedroom from the other family members to reduce the risk of spreading TB, especially during the first 2-3 weeks of TB treatment because patients still have a cough during this period. After this, the cough and the bacteria itself will be much less, and so will the potential to spread TB.
 - TB is transmitted through breathing, not eating. However, proper eating hygiene must be promoted to avoid other diseases that are transmitted through saliva. Serving spoons should be used during a meal with family and friends. A drinking glass should not be shared with other people.



FAQ about TB prevention



Q What is the best way to prevent TB?

A Cure of TB is the best way to prevent TB disease. This is a fundamental approach to prevent transmission of TB.

Q To what extent does BCG vaccine prevent TB?

A BCG is given to a baby at birth. It does not provide children with definite TB prevention but does prevent children from having a serious form TB disease, such as TB meningitis, which usually results in death. The best approach to prevent TB disease in children is to cure TB disease in adult patients.

Q How can I help my patients to prevent TB transmission?

- A**
1. Assist them in taking TB medications until TB is cured.
 2. Instruct them to cough by using a cloth to cover their mouth and nose.
 3. Instruct them to spit sputum only into the container provided to them. Instruct them not to clear their throat and then spit on the street or on the ground.
 4. A container for receiving sputum must be covered with a lid. If a plastic bag is used, always tie its opening. Dispose of the sputum into a toilet or burn it.
 5. Remember that sunlight is a free source for bacteria disinfection and freely available in tropical countries. Advise the patients to open the doors and windows to their bedrooms to allow the sun to reach inside and to promote good ventilation. Also advise them to wash pillowcases and bed sheets, and to regularly place their mattresses in the sun.



Annex 5

The use of antiretroviral, cotrimoxazole and preventive therapy for opportunistic infection in HIV-positive TB patients

Table 1 Regimens for opportunistic infection prophylaxis

Opportunistic infections	Indications for primary prophylaxis	Regimen for primary prophylaxis	Regimen for secondary prophylaxis
PCP	CD4 < 200	<ul style="list-style-type: none"> • Cotrimoxazole 2 tablets once per day • In case of allergy to Sulfa, Dapsone 100 mg. once per day 	<ul style="list-style-type: none"> • Cotrimoxazole 2 tablets once per day • In case of allergy to Sulfa, Dapsone 100 mg. once per day
Toxoplasmosis	CD4 < 100	<ul style="list-style-type: none"> • Cotrimoxazole 2 tablets once per day • In case of allergy to Sulfa, Dapsone 50 mg once per day plus Pyrimethamine 50 mg. and Leucovorin 25 mg. once per week 	Sulfadiazine (500 mg) 1 tablet 4 times per day plus Pyrimethamine 25 mg. per day and Leucovorin 15 mg. per day.
Cryptococcosis	CD4 < 100	Fluconazole 400 mg weekly	Fluconazole 200 mg once per day
Penicillosis (Only in endemic area)	CD4 < 100	Itraconazole 200 mg. once per day	Itraconazole 200 mg. once per day
MAC	CD4 < 50	Azithromycin (250 mg) 4-5 tablets once per week or Clarithromycin (250 mg) 2 tablets twice per day	Clarithromycin (250 mg) 2 tablets twice per day plus Ethambutol 15 mg/kg/day

Source: Bureau of AIDS, TB and STIs Department of Diseases Control Ministry of Public Health, Thailand. Guidelines for Integrating TB and HIV/AIDS Services. Bangkok: The National Buddhism Publisher, 2005.



Table 2 Initiating first-line ART in relationship to starting anti-TB therapy

CD4 Cell count	ART Recommendation	Timing of ART in relation to start of TB treatment
CD4<200 cells/mm ³	Recommend ART ^a	Between two and eight weeks ^b
CD4 between 200 and 350 cells/mm ³	Recommend ART	After eight weeks
CD4>350 cells/ mm ³	Defer ART ^c	Re-evaluate patient at eight weeks and at the end of TB treatment
Not available	Recommend ART ^d	Between two and eight weeks

- An EFV-containing regimen is the preferred first-line regimen. Alternative first-line treatment regimens include NVP and triple NRTI (based on TDF or ABC) regimens. For NVP-containing regimens, ALT should be checked at 4, 8 and 12 weeks; treatment should be decided on the basis of symptoms thereafter.
- ART should start as soon as TB treatment is tolerated, particularly in patients with severe immunosuppression.
- ART should be started if other non-TB stage 3 or 4 events are present.
- For some TB diagnoses that generally respond well to anti-TB therapy (i.e. lymph node TB, uncomplicated pleural effusion), deferral of ART should be considered.

Source: WHO. Antiretroviral Therapy for HIV Infection Adults and Adolescents in Resource-Limited Settings: Towards Universal Access. Recommendations for a Public Health Approach. WHO: Geneva, 2006 (Revision), p.59. <http://www.who.int/hiv/pub/guidelines/WHO%20Adult%20ART%20Guidelines.pdf>



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TB/HIV Research Foundation (THRF)

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Registered in Thailand # 222/2545

Tuberculosis and HIV/AIDS are global health emergencies and Thailand is not spared. In 1992, a group of Thai and Japanese doctoral students carried out their multi-disciplinary dissertations on tuberculosis and HIV/AIDS in Chiang Rai, the northern most province in Thailand. They soon realized the importance of research in providing knowledge as an effective tool for prevention and control of the diseases. After having worked in the field for more than 10 years in close collaboration with the Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association, they firmly believe that successful prevention and control programs require not only research but also human resources development and technical collaboration at community, national and international levels.

The Foundation was officially registered in Thailand in June 2002 as a non-profit organization, with the aim to drive research on tuberculosis and HIV/AIDS forward. It has since been conducting and supporting biomedical, health and social sciences research on tuberculosis, HIV/AIDS, and other related problems. It has also supported human resources development and provided consultations in the fields of tuberculosis and HIV/AIDS.

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The Chief Editor alone bares comments, criticism and legal responsibility for this book.

Jintana Ngamvithayapong – Yanai

Chief Editor

January 2007



"I want to be a nurse"

The inspiration of a little orphan girl who survived TB and lives with HIV

The word "**NURSING**" has become my inspiration. When I grow up, I will definitely be a nurse. And I will be a good nurse. My inspiration began when I saw nurses taking care of patients in hospital. That was the starting point that inspired me to be a nurse.



Today, many people want to be a nurse. Different people, of course, have different reasons for wanting to be a nurse. Some choose nursing because they have no other jobs. Some choose nursing because it can earn them big money. For me, however, those are not my reasons. I want to be a nurse because, firstly, I want to serve my country and my homeland that gave me life. This is because people today are concerned only about personal interests, money, power and career achievements. They care less about the interests of the nation because they are busy with accumulating power and material achievements. Secondly, if I am a nurse, I can help look after patients. If I look after them, I will give them the best care I can as if they were my family. This is because I used to be a patient before. Being a patient puts you through much suffering; I understand this very well. Although I may not provide care for them up until the very last second when they breathe their last breath, spending some good times with them and giving them the best care that they need will make me proud. To be a "Patient" is not the wish of anyone; and no one wishes this in their life. But it is impossible not to be a patient at some time. One day or another we will all be a patient because it is a fact of human nature. If there were no patients, there would be no "nurses", no "doctors" and no "many others". If I become a nurse, I will do my best. I will be a non-selfish nurse, focus on people's interests, and believe in "making the best of today".

Becoming a nurse, for me, is not difficult or easy. If we think it is difficult, it will be difficult. If we think it is easy, it will be easy. Never say never before you start doing it. There is nothing beyond the human potential. **I believe I can be a good nurse....And I want to be a good nurse...**



A story from the back cover

A painting by a young male artist who survived TB and AIDS.

It is a reflection on his experiences with TB disease and HIV infection and his survival as a result of ARV.

...When I had an HIV test and found out that I had HIV infection, I felt so sad. The doctor told me that when the virus entered the body, it will destroy white blood cells. This weakened the body and resulted in many diseases such as pneumonia and TB. Once I was on ARV, my white cells increased. And I have the mental strength to fight the disease. I take the medications as prescribed, and they make me healthier and allow me to live like other normal people. I have a smile that helps me fight for life. Thanks to doctors, nurses and all the staff who looked after me. They have given me today to create the art I love. And I hope that other patients who have HIV infection have the same opportunity I have.

A young male artist who has lived with HIV since 1995

17 August 2006



**TB...Cured
HIV...Managed
Lives...Saved**