

出國報告（出國類別：參加國際會議）

## 赴墨西哥參加第 17 屆愛滋病會議

服務機關：疾病管制局

姓名職稱：楊靖慧（第三組組長）

派赴國家：墨西哥 墨西哥市

出國期間：2008/8/2-2008/8/9

報告日期：2008/8/12

## 摘要

第17屆國際愛滋病會議於2008年8月2日至8月8日於墨西哥的首都墨西哥市之Centro Banamex會議中心舉行，這是此會議第一次在拉丁美洲舉行。本屆大會疾病管制局由本人代表發表兩篇論文，此外國內還有多位學者、公共衛生人員發表多篇論文，而民間團體則有臺灣紅絲帶基金會及關愛之家在世界地球村展覽場設立展示攤位。本次大會研討時間有六天，而發表之論文則高達五千餘篇之多，因此必須在同一時間分別進行不同主題之研討，加以研討會會場分散於各處(計有17處演講廳)，故僅能就不同之主題項目，採取重點式的參加。愛滋病防治必須多管道而全面性，台灣減害計畫成功模式受到各國重視，在此次會議發表多篇論文。然而，為了維持此卓越的成果，針對靜脈藥癮者仍應積極進行衛教，並且增進針具點與替代療法點的服務品質，以便能持續推動並評估減害計畫之成效。而對於性行為感染者，社區及行為介入均是重要的防治模式，此外，去除歧視並保障感染者人權，亦是日後推動愛滋防治計劃之重點。藉由參予此次會議，在學術上與未來防治政策上均有很大的收穫，建議未來若有機會，可以積極爭取辦理國際性愛滋會議或相關性質展覽活動，邀請國外專家學者及民間團體與會，增加政府單位與國際間、民間團體經驗分享及人才交流的機會，以培養更多愛滋病防治專業人才投入此領域。

## 目次

---

摘要	P. 1
目次	P. 2
本文.	
一、目的	P. 3
二、過程	P. 4-5
三、心得及建議	P. 6
附錄一、參予會議及論文發表之照片	P. 7
附錄二、發表之海報論文	P. 8-9
1. Clinical features of tuberculosis associated with HIV infection in Taiwan	
2. Treatment retention of methadone maintenance treatment in injecting drug users in Taiwan.	

## 一、目的：

世界愛滋病大會是目前有關愛滋病議題全球規模最大國際性會議，由國際愛滋病學會組織(International AIDS Society, IAS)召開，自 1994 年起每兩年舉行一次。第 17 屆國際愛滋病會議於 2008 年 8 月 2 日至 8 月 8 日於墨西哥的首都墨西哥市之 Centro Banamex 會議中心舉行，這是此會議第一次在拉丁美洲舉行，參加者包括專家學者、非政府組代表、義工、年輕學生代表等。

會議前公布的材料顯示，全球範圍的愛滋病患者總數略有下降。但愛滋病在一些國家的感染率仍在繼續上升，許多地方仍然面臨醫療人力與治療藥物缺乏的困境。全球在 2007 年 12 月底一共有 3300 萬愛滋病毒感染者者，一年內增加近 300 萬人，近 200 萬人死亡。包括俄羅斯、中國、甚至德國和英國在內的一些國家，愛滋病毒感染率仍在上升。在擁有全球 70% 愛滋病患者的非洲大陸，儘管患者獲得藥物的情況得到了改善，但仍然缺乏衛生管理與護理人員。此次大會以「Universal Action Now」為主題，強調愛滋病疫情仍持續進行，需要所有人照護、醫療等議題。同時也呼籲個人、團體、社區應有支持 AIDS 病患之策略。此外，由於社會對愛滋病的歧視，許多愛滋病毒感染者仍不敢前去就醫。統計顯示，愛滋病患患有年輕化的趨勢，2007 年，全球新增愛滋病患中，15 到 24 歲佔了四成五。在 2007 年新增的 270 萬愛滋病毒感染者中，有 37 萬人為年齡不到 15 歲的兒童，其傳染途徑主要是母子垂直感染，懷孕的 HIV 感染婦女，經由懷孕、分娩或哺乳將病毒傳染給嬰兒，大約半數感染愛滋病病毒的兒童在 2 歲之前死亡。抗愛滋病毒藥物可以有效的將垂直感染率由 40% 降到 2%，但是能夠接受治療的婦女人數仍十分有限。以拉丁美洲地區為例，雖然從 2004 年至今，懷孕婦女接受防止愛滋病毒傳播用藥的比例增加了 26%，可是到目前為止，用藥率依然只有 36%。

為了解國際最新愛滋病資訊，掌握流行趨勢及現況，增進專業職能，並作為日後釐定愛滋病防疫政策之參考，因此由本人代表疾病管制局參加本次在墨西哥市舉辦的第十七屆國際愛滋病會議，並發表兩篇論文。

## 二、過程：

此次總計有超過 175 個國家的代表來共襄盛舉，約有 22,000 人與 2000 多個國際媒體參加此一盛大國際會議，為期 6 天，近 5 千場次的會議及展場，耗資 4 千萬美元，使本屆大會成為在 27 年愛滋病史上規模第二大會議，也是在開發中國家舉行規模最大的會議。

星期天(8 月 3 日)傍晚在墨西哥市，由來自宏都拉斯的 12 歲愛滋病毒感染少女 Keren Dunaway 和聯合國秘書長 Ban Ki-Moon 及墨西哥總統 Felipe Calderón Hinojosa 共同揭開序幕。Keren 五歲大的時候，她的父母透過圖畫，向她解釋，他們都是愛滋病毒感染者，凱倫也被傳染。今年已經 12 歲的她，已經成為拉丁美洲名氣最大的愛滋病毒鬥士，她居住的城市，愛滋病依然是禁忌話題，因為怕被同儕排擠，同學裡沒有人敢承認自己感染愛滋，凱倫是個特例，她現在是一本以兒童為對象的愛滋病宣導期刊編輯。這本期刊在宏都拉斯，每兩個月發行一萬本。聯合國愛滋病規劃署、聯合國兒童基金會和聯合國開發計畫署等國際機構呼籲各國政府儘快制訂相關政策，增加對兒童和青少年對抗愛滋病行動資金的投入，加強對青少年的愛滋病知識教育，提高低年齡愛滋病患和感染者的抗病毒藥物使用率，以遏制全球愛滋病患者和愛滋感染者低年輕化的趨勢。

大會的會議活動有包括：(A) 全體與會的報告，開閉幕式及特別講座；(B) 不同議題講座；(C)世界地球村表演及展示活動；(D)論文海報展示；(E)衛星會議；(F) 建立技能座談會(skills building workshops)等。由於行程關係，參與本次大會研討時間只有五天，而發表之論文則高達五千餘篇之多，因此必須在同一時間分別

進行不同主題之研討，加以研討會會場分散於各處(計有 17 處演講廳)，故僅能就不同之主題項目，採取重點式的參加。

除了各國發表一些公衛措施對抗愛滋病的擴散與漫延的成果，例如男性割除包皮以對抗愛滋病毒的傳播、針具交換可降低毒癮者受感染之風險、高風險者定期篩選 HIV 感染與否等。此外，此次會議亦針對感染者人權問題有詳盡的討論。大會科學性論文依議題分為六大主題：全球化對 HIV/AIDS 的影響；科學與科技如何融入公共衛生政策在 HIV 的預防、治療和支持；健康系統的強化以便使最需要醫療的人得到服務；去歧視與社區支持系統；有證據支持的政策與計畫；持續追蹤及評估成果等。其依不同研究方式分為五大類：HIV 之生物學與感染致病機轉；臨床研究的治療與照護；流行病學的預防與研究；公衛、社會、行為與經濟學研究；政策與政治面的研究。除了演講的議題外，在展覽會場有許多來自各國機構團體、非政府組織，提供許多有關愛滋病的統計資料、研究成果、防治方法、策略等，利用會議空檔時可前往收集各式資料、傳單、書籍、DVD 等第一手資料。

本屆大會國內由臺灣紅絲帶基金會及關愛之家在世界地球村展覽場設立展示攤位。我國參加人員除由本人代表疾病管制局發表兩篇論文外，台灣減害協會理事長暨陽明大學愛滋病防治及研究中心主任陳宜民教授、桃園縣衛生局由林雪蓉局長、臺灣愛滋病學會副秘書長(成大護理系助理教授)柯乃熒老師、成大醫學院李南瑤醫師等愛滋防治工作專業人員亦發表多篇論文及口頭報告，世界基督教女青年會(YWCA)副會長李萍及國內醫藥界多人亦分別自行報名與會。

因行程關係，於會議第五日上午議程結束後，即啓程返回台北。

### 三、心得及建議：

此次國際會議不僅在愛滋的議題上有充分的討論，同時對當地政府的觀光收益有顯著的效果，本局僅有一位代表前往，與其他單位比較稍微單薄，而由於其會議同時有各種不同議題演講同時進行，常常顧此失彼，建議未來在經費許可下，可以增派人員參與此盛會，除了可以參觀其他國家的經驗外，也可進行國際衛生外交，拓展視野。

愛滋病防治必須多管道而全面性，台灣減害計畫成功模式受到各國重視，在此次會議發表多篇論文。然而，為了維持此卓越的成果，針對靜脈藥癮者仍應積極進行衛教，並且增進針具點與替代治療點的服務品質，以便持續推動並評估減害計畫之成效。而對於性行為感染者，社區及行為介入均是重要的防治模式，此外，去除歧視並保障感染者人權，亦是日後推動愛滋防治計劃之重點。

另一方面，從國際會議的展覽會場中的各民間團體攤位上，掛了許多具有豐富創造力且又能宣達主題的海報、及看板，還有擺脫制式具創意的保險套外包裝、宣導光碟及小型文宣品，讓人耳目一新又愛不釋手。反觀我們自己在推行愛滋防治宣導時常見的就是屬於官方的宣導品，缺乏創新、逗趣，無法打動特殊族群的心，未來在設計宣導品時應針對不同的年齡層及不同的族群來設計，才能達到宣導的目的。此外，未來在經費許可下應持續鼓勵民間組織加入國際愛滋病防治工作，同時繼續派員參加此研討會並展設攤位，除了可以宣揚我國防治愛滋的成果外，亦可加強與國際愛滋病防治團體之經驗交流。

此類國際性愛滋會議或相關性質展覽活動隊主辦國來說是宣傳的最佳機會，建議未來我國應積極爭取辦理，邀請國外專家學者及民間團體與會，增加政府單位與國際間、民間團體經驗分享及人才交流的機會，以培養更多愛滋病防治專業人才投入此領域。

附錄一 參予會議及論文發表之照片







# Clinical features of tuberculosis associated with HIV infection in Taiwan

Chin-Hui Yang<sup>1</sup>, Kwe-Fong Wang<sup>1</sup>,  
Yu-Hui Lin<sup>2</sup>, Jih-Jin Tsai<sup>3</sup>, Kuan-Jung Chen<sup>4</sup>

<sup>1</sup>Third Division, Centers for Disease Control, Department of Health, Taiwan

<sup>2</sup>Department of Internal Medicine, Taichung Veterans General Hospital Taiwan

<sup>3</sup>Chung-Ho Memorial Hospital, Kaohsiung Medical University, Taiwan

<sup>4</sup>Department of Chest Medicine, Yi-Ho Community Hospital

## Background:

Human immunodeficiency virus(HIV) infection is a potent risk for tuberculosis(TB). HIV increases the risk of TB through activation of latent infection and accelerating the progression.

For years, TB has had the highest incidence and fatality rates of all communicable diseases in Taiwan. According to Taiwan tuberculosis control report, the TB incidence rate in 2005 is 93.6 and the mortality rate is 4.3 per 100,000 persons.

By the end of 2006, the cumulative number of reported HIV-infected persons in Taiwan reached 13,103. Taiwan government provided free medical care at designated hospitals, including highly active antiretroviral therapy(HAART) which was introduced on 1 April 1997.

The aim of study is to access the clinical characteristics and outcome of tuberculosis(TB) in HIV-infected patients in Taiwan.

## Methods:

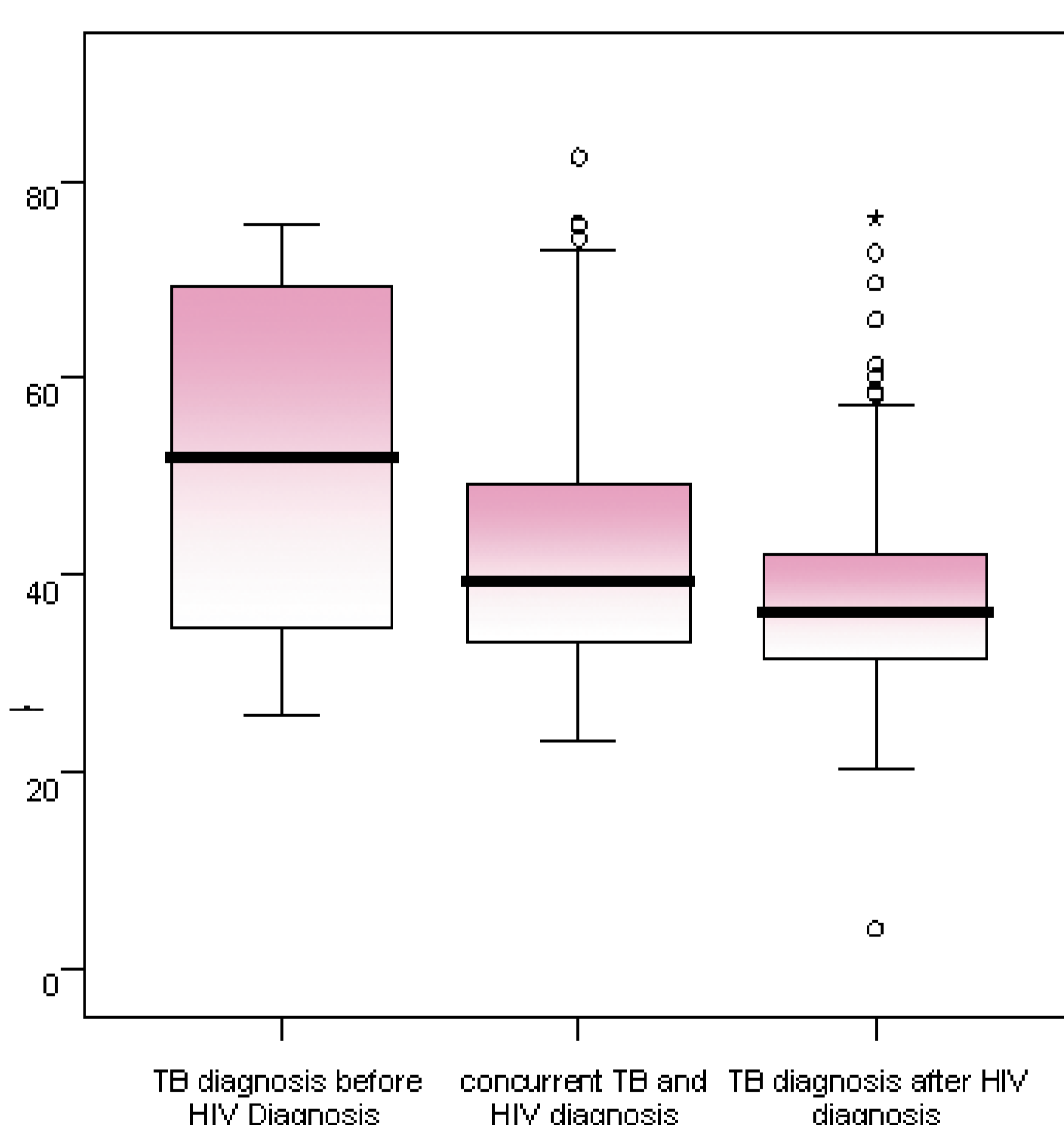
Registered HIV and TB data in Taiwan CDC from 1997 till 2006 were reviewed and HIV-TB co-infected persons were identified. All the medical and microbiologic records of these patients were retrospectively reviewed to obtain clinical information.

## Results:

As of December 31, 2006, 315 patients (2.4%) developed 340 episodes of culture confirmed TB after a median follow-up of 2.2 years. There were 22 patients (8.9%) developed 25 episodes of recurrent TB in the study period and the overall incidence of recurrent TB was 4.4 cases per 100 person-years. There were 294 male patients and 21 female patients and the mean age was 41.1 years. The median CD4+ lymphocyte count was 52.5/mm<sup>3</sup> at the time TB was diagnosed.

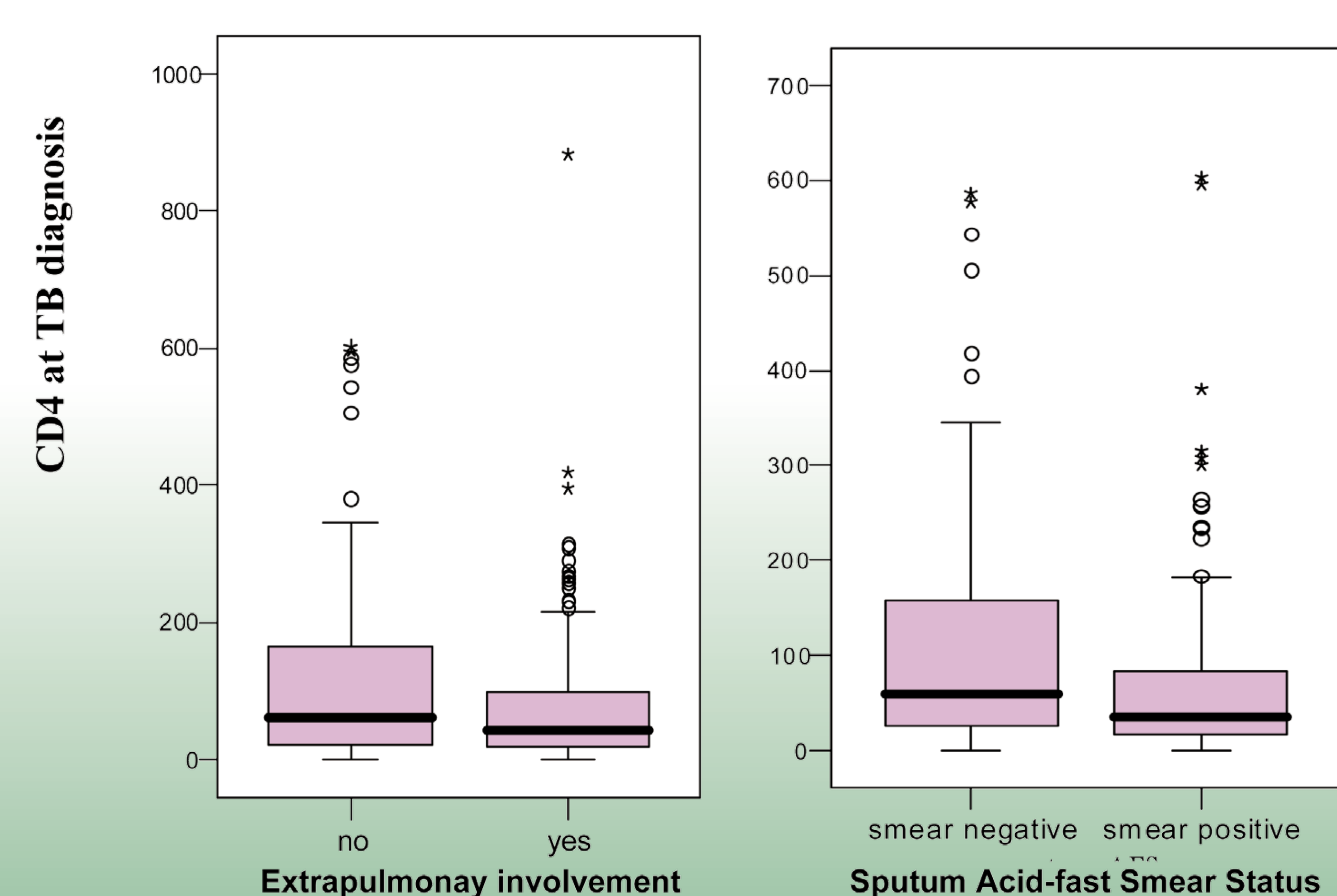
TB was the initial presentation at the time of HIV diagnosis in 167 patients (53.0%) with a median CD4 count 45/mm<sup>3</sup>. Among the 132 patients developed TB after HIV diagnosis, only 27 cases(20.5%) is under regular HAART with median CD4 218/mm<sup>3</sup>. On the contrary, among the 105 patients known to be HIV-infected, who were not on antiretroviral treatment at the time of TB diagnosis, the median CD4 is 41 /mm<sup>3</sup>. There were 16 cases(5.1%) had TB diagnosis before HIV diagnosis and the average interval is 7.6 months (range 4-20). The median age at TB diagnosis of these patients is significantly older than other patients (Figure 1).

**Figure 1** Distribution of age at TB diagnosis of patients classified by the timing of HIV and TB diagnosis.



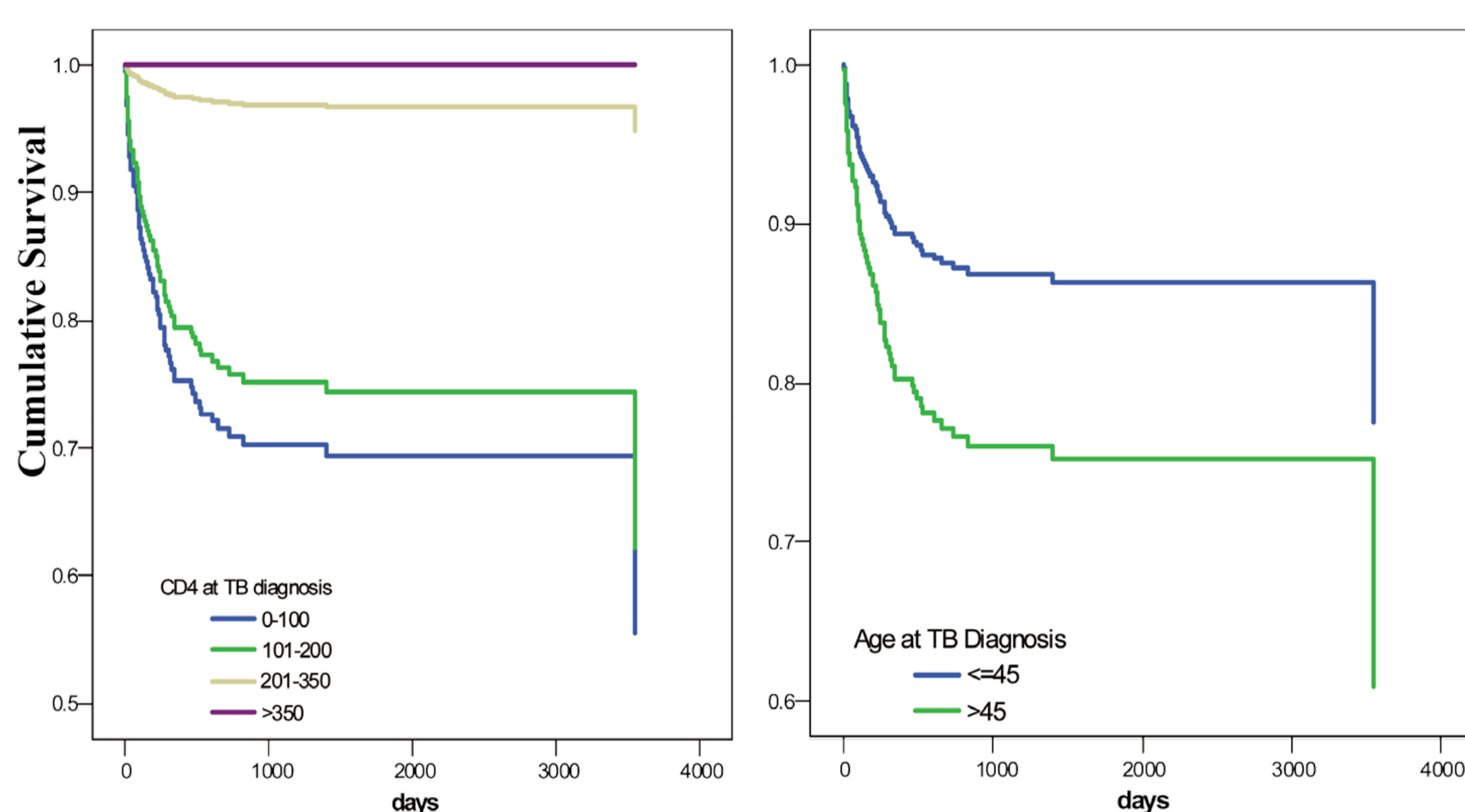
Twenty-three patients had isolated extrapulmonary TB and 157 patients had isolated pulmonary TB. The median CD4 in patients with isolated pulmonary TB was significant higher than those with extrapulmonary involvement, 142 vs. 78/mm<sup>3</sup>, p<0.001. Among cases with pulmonary tuberculosis, acid-fast bacilli were detected in sputum smear from 125 patients (42.9%), but the rate of positive sputum culture for Mycobacterium tuberculosis(MTB) reached 83.8%. Patients with lower CD4 count were more common to have extrapulmonary involvement and to be sputum smear positive (Figure 2). Of the 315 patients, 2.2% multidrug-resistant TB(MDR-TB).

**Figure 2** CD4 count at TB diagnosis in cases with extrapulmonary involvement and positive sputum smear.



Two hundred and thirty five patients(69.1%) completed anti-TB therapy and cured, 93 patients(27.3%) died during anti-TB treatment and 63 patients died directly related to tuberculosis. Death during treatment was significantly associated with age over 45, drug resistant of MTB and lower CD4 count and not receiving HAART at the time of TB diagnosis (Figure 3).

**Figure 3** Survival of HIV-TB co-infected patients in different CD4 and age group during TB diagnosis.



In comparison with general population, the incidence of TB in HIV infected persons is higher in all age groups (Table 1) and the case fatality rate is also higher.

**Table 1.** Age-specific 3-year average(2003-2005) TB incidence in general population and HIV-infected persons.

Age (y/o)	TB incidence/105 population(2003-2005)		
	HIV(+)	General Population	Risk Ratio (95% confidence interval)
20-29	255.9	13.8	18.6 (11.0-31.4)
30-39	609.8	17.2	35.3 (26.3-47.4)
40-49	756.9	27.9	27.0 (18.5-39.3)
50-59	969.2	48.1	20.0 (11.1-36.0)
>=60	2861.2	215.7	12.9 ( 8.4-20.0)
15-49	520.4	18.4	28.2(22.8-34.8)

## Discussion

The incidence of cultured-confirmed TB in HIV-infected persons declined annually in Taiwan but the HIV prevalence among new confirmed TB cases showed significantly increase, especially among age between 15 to 49 years old. The present study suggests that several factors may contribute to the continuing incidence of HIV-TB co-infection in the context of a wide availability of HAART. Failure to early diagnose HIV infection or enrolled HIV-infected patients into regular medical care are most important.

TB as the initial presentation of HIV infection was noted around 50% of our patients and the median CD4 count is only 45/mm<sup>3</sup>. This represents the patients were in late AIDS stage and delayed HIV diagnosis. There were 5% of patients had TB diagnosis before HIV diagnosed, and this number is definitely underestimated. In Taiwan, more than 60% of TB confirmed cases were over 60 years old and physicians had less suspicion and will not consider and offered HIV testing to elder TB patients. Nevertheless, HIV-infected patients pose a higher risk to develop TB than general population even among patients elder than 60 years. HIV counseling and testing should be expanded extensively and health providers should be educated to offer HIV testing to all TB patients, irrespective age or other factors.

Among the patients who knew HIV infection before TB diagnosis, only 20% was under regular HAART treatment. Patients on HAART had significant better outcome then those not on HAART. The age of patients who known HIV-positive but never received HAART or on irregular treatment before TB diagnosis are younger than others at the time of HIV diagnosis (33 vs. 37 years old), but without statistical difference. Besides early diagnosis of HIV, aggressive case management included enroll HIV-infected patients into medical care can improve the prognosis of patients with TB-HIV co-infection.

In our study showed the sputum smear positive rate is 41% only, but the sputum smear positive rate of general population culture-confirmed TB cases was 79.2% in 2006, much higher than HIV-infected persons. High rates of false-negative sputum smears and normal CxR in HIV-infected persons can result in delay diagnosis of TB. Case fatality rate of co-infected patients was significantly associated with age over 45, drug resistant of MTB and lower CD4 count and not receiving HAART at the time of TB diagnosis.

## Conclusions:

The risk of developing active TB is high in HIV-infected persons, even during the HAART era. Failure to early diagnose HIV infection or enrolled HIV-infected patients into regular medical care may contribute to continuing occurrence of HIV-associated tuberculosis. Atypical manifestation and high mortality rate in co-infected persons warranted more aggressive strategy to reduce the incidence of TB in HIV-infected persons.



# Treatment Retention in Methadone Maintenance Treatment among Injection Drug Users in Taiwan

Hui-Rong Liu, Yen-Fang Huang, Chin-hui Yang, Chia-Chi Lee, Sung-Yin Chen  
Centers for Disease Control, Department of Health, Taiwan  
(rong@cdc.gov.tw)

## Background:

In the past several years, the sharing of needles by IDUs has become a new and challenge in the fight against HIV/AIDS in Taiwan (Figure 1). In response to this rapid emergence of HIV/IDU epidemic, a pilot program has been implemented in Taipei city and 3 counties since August, 2005. The program was scaled up to the whole island one year later. Totally, drug maintenance treatment caters for 15,184 drug abusers in 68 hospitals and clinics at the end of December 2007 (Figure 2).

## Objective:

This study purpose to realize if pre- and in-treatment factors will influence the methadone maintenance retention among injection drug users.

## Methods:

To avoid providing medicines repeatedly, we established Taiwan CDC National Drug Maintenance Treatment Management System. The hospitals and clinics Providing drug maintenance treatment must send the data to Drug Maintenance Treatment Management System by daily. From February 2006 to December 2007, there was total 15,184 patients entered methadone maintenance treatment. Patient data from Drug Maintenance Treatment Management System were retrospectively analyzed. After excluding those with inadequate data there were 15,034 patients enrolled for final analyses. Statistical methods included descriptive statistics and Cox proportional hazard models for investigating the relationship be-

tween pre- and in-treatment factors of methadone maintenance treatment of methadone maintenance treatment patients.

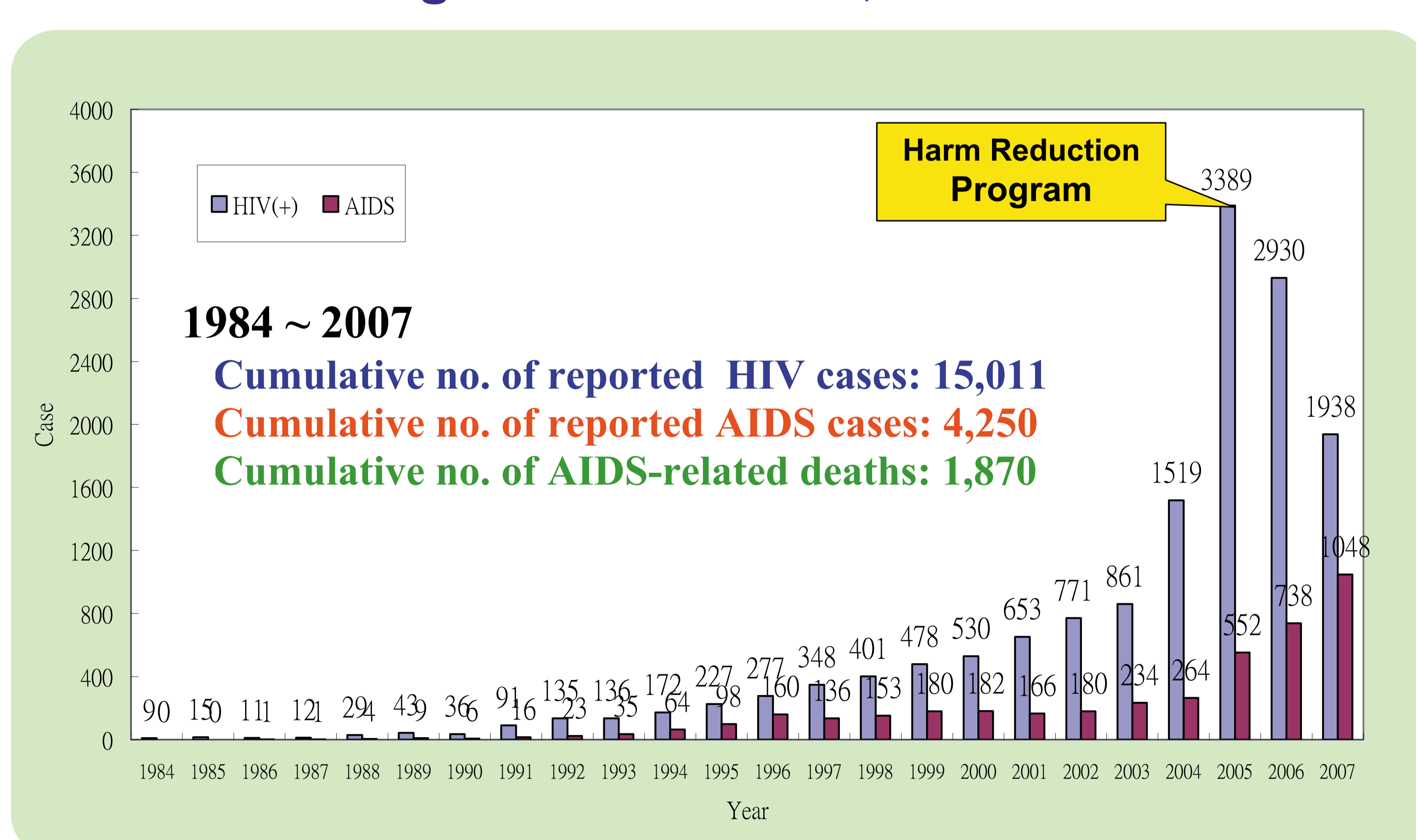
## Results:

Male accounted for 86% (N=15,034) and the average age was 36.5 years. Cox proportional hazard modeling determined that two treatment variables were significant factors with retention rate (Table 1). Those who had to pay for treatment tended to have poorer retention probability than those received free treatment (HR : 1.562; 95% CI: 1.491 -1.636, p<0.001, Figure 3). In addition, those on methadone initial dosage more than 30mg had higher retention (HR:0.865; 95% CI:0.823-0.910, p<0.001) .

## Conclusions:

Events during treatment are important for patient retention in methadone treatment. This study retrospectively reviewed 15,034 patients who entered methadone treatment and found that apart from in-treatment factors influenced the retention rates. So policy maker and care providers should devote to improve factor for increasing retention rates. Further different research in retention rates is needed to implement by in-depth clinical and programmatic research in Taiwan.

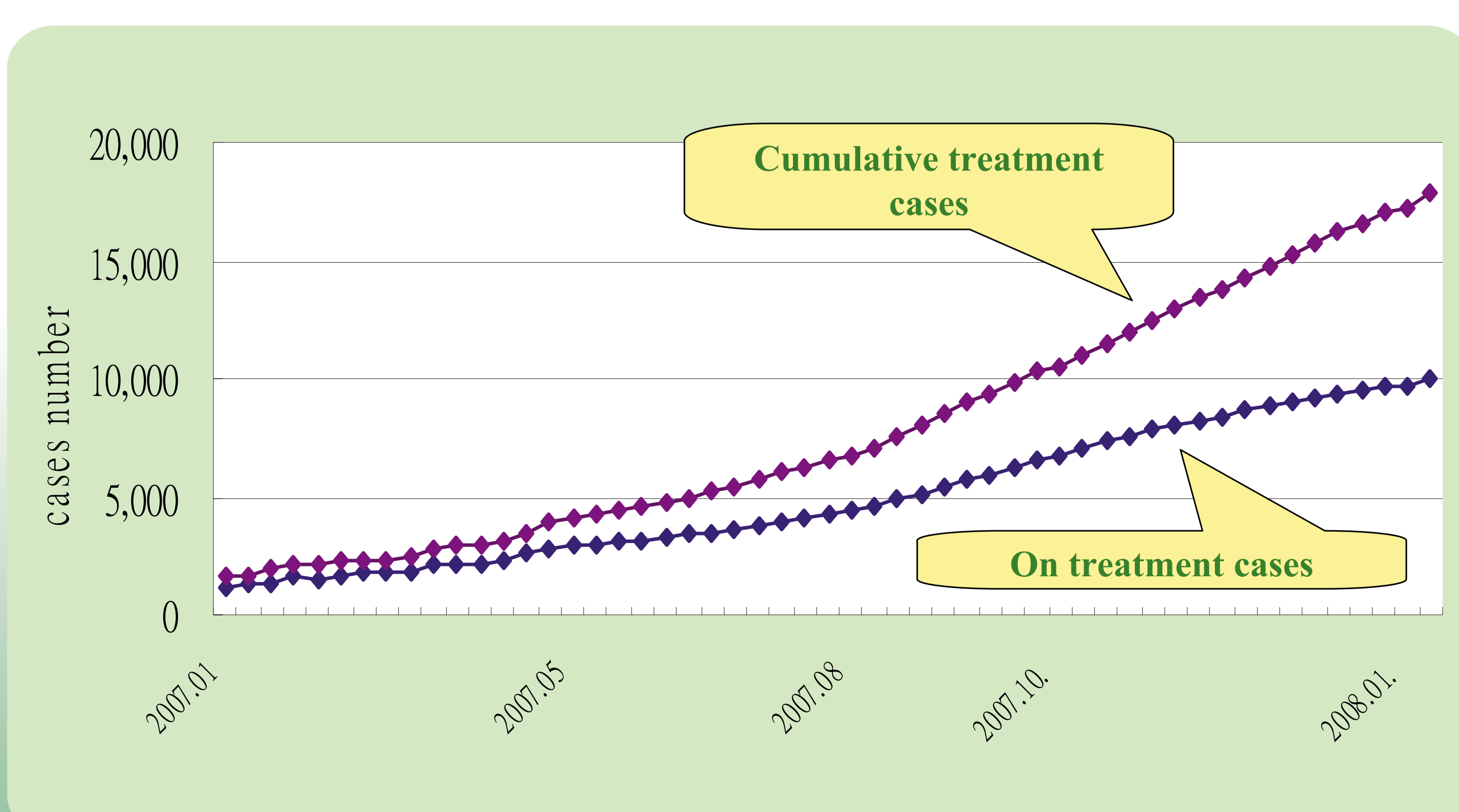
**Figure 1** Reported Cases of HIV/AIDS by Year of Diagnosis in Taiwan, 1984-2007



**Table 1** Cox Proportional Hazard Model

Variables	Hazard Ratio	95% CI	
		Upper limit	Lower limit
Gender			
Female	1.000		
Male	0.963	0.903	1.028
Age			
<30 yrs	1.000		
31-40 yrs	0.992	0.939	1.047
41-50 yrs	0.987	0.926	1.052
51-60 yrs	0.955	0.856	1.067
>61 yrs	0.807	0.607	1.073
Educational level			
None	1.000		
Elementary	0.812	0.582	1.134
Junior high school	0.767	0.551	1.067
Senior high school	0.799	0.574	1.112
College	0.76	0.527	1.094
Master	11.5	1.6	82.661
Unknown	0.757	0.537	1.067
Marital status			
Unmarried	1.000		
Married	0.949	0.896	1.005
Divorced/Separated	1.048	0.986	1.114
Widow/widower	1.121	0.813	1.546
Live together	1.061	0.862	1.306
Job			
Yes	1.000		
No	1.016	0.97	1.064
Unkown	0.673	0.598	0.757
Pay for treatment			
Free	1.000		
No Free	1.562	1.491	1.636
Initial dose			
< 30mg	1.000		
≥ 30mg	0.865	0.823	0.91

**Figure 2** The Case Number Joined Drug Maintenance Treatment in Taiwan



**Figure 3** Treatment Retention Comparing Participants Who Received Free Treatment with Those Who Had to Pay for Treatment

