出國報告（出國類別：其他會議）

赴日本參加「後天免疫缺乏症候群學會第 22 屆年會」

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：日本 大阪、京都

出國期間：2008/11/26-2008/11/29

報告日期：2008/12/30

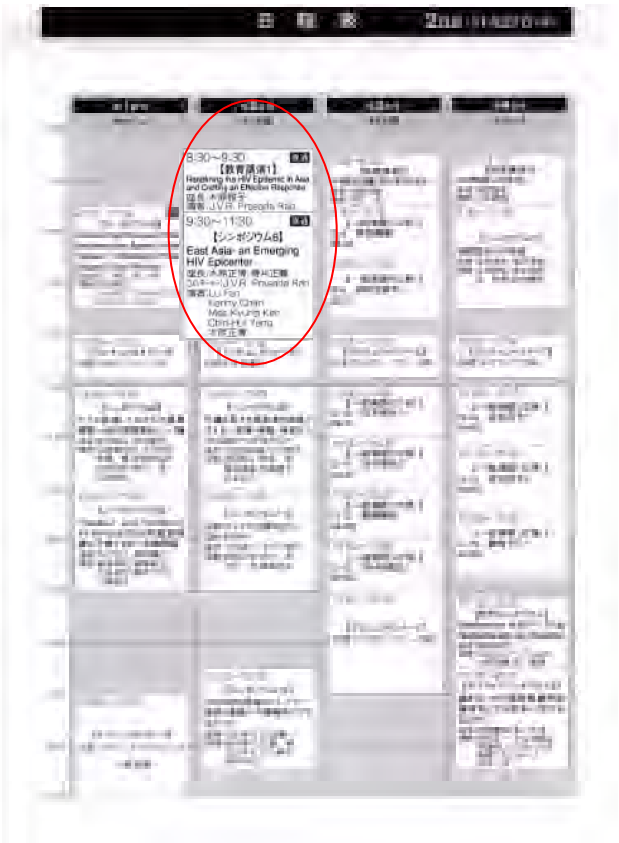
摘要

前往參加在 2008 年 11 月 26 日至 11 月 28 日於日本大阪市舉行之日本後天免疫缺乏症候群學會第 22 屆年會，其中有一個議程是討論東亞地區的HIV流行疫情，由日本、香港與韓國代表發表各國之 HIV 流行情況與防治策略，本人代表臺灣發表口頭報告，席間與各國出席專家互動並交流愛滋病防治之經驗，之後於隔日參訪設置於京都大學的 UNAIDS 國際合作 HIV 社會流病研究中心。此次會議不僅在愛滋的議題上有充分的討論，同時對各國的 HIV 疫情、政府的防治策略都有進一步的了解，目前亞洲地區間人民往來頻繁，此項交流有助於進一步防治疫情。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其他國家的讚賞，但是目前以男同性族群爲主的疫情已逐漸成爲亞洲地區 HIV 疫情的下一波主力，針對此族群的社區及行爲介入均是重要的防治模式，而亞洲地區的國情與歐美等先進國家不盡相同，應彼此觀摩以得到較好的防治模式。

目次

一、目的：

日本後天免疫缺乏症候群學會第 22 屆年會(22nd Annual Meeting of the Japanese Society for AIDS Research)於 2008 年 11 月 26 日至 11 月 28 日於日本大阪市之大阪國際會議中心舉行，其中有一個議程是討論東亞地區的 HIV 流行疫情(East Asia- an emerging HIV epicenter)，由木原正博教授（Masahiro Kihara，京都大學大學院醫學研究科，UNAIDS 國際合作 HIV 社會流病研究中心顧問）與樽井正義教授（慶應義塾大學文學部）共同主持，並邀請 UNAIDS 亞太地區主席 J.V.R. Prasada Rao 做一場特別演講，之後由中國、香港、臺灣與韓國代表發表各國之 HIV 流行情況與防治策略。本人代表臺灣衛生署疾病管制局參加此會議並發表口頭報告，之後並參訪設置於京都大學的 UNAIDS 國際合作 HIV 社會流病研究中心，與各國出席專家互動並交流學習愛滋病防治之經驗，並研討未來可能之合作方向。



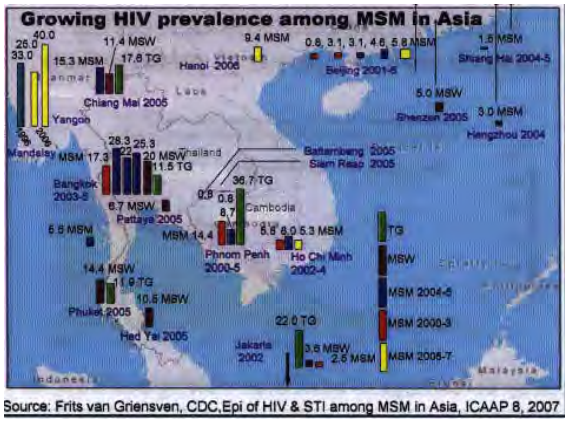
二、行程：

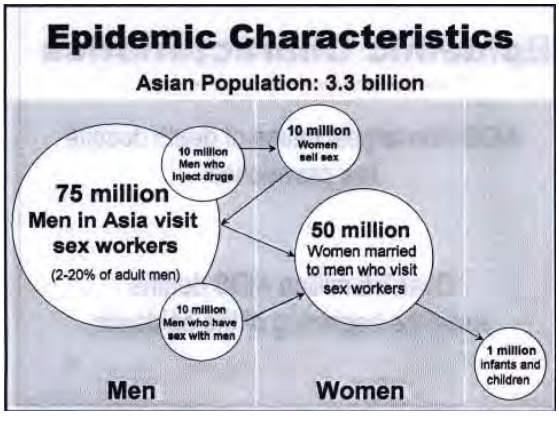
日期	地點	行程內容
2008-11-26	台北→大阪	啓程與抵達，與日本口譯人員會議，
2008-11-27	大阪	參加會議 **8:30-9:30 Key note lecture by Dr. Prasada Rao** （Director, UNAIDS Asia Pacific Region, Bangkok） modulated by Dr. Masako.Ono-Kihara, (Director of the UNAIDS Collaborating Centre, Kyoto University） **9:30-12:00 Symposium** : **East Asia- an emerging HIV epicenter** 1. Current situation of and responses to HIV/AIDS in China --- **Lu Fan** （Director, Division of Policy Research and Information, NCAIDS, China CDC） 2. Changing profile of HIV/AIDS epidemic in Hong Kong----**Kenny Chan** （Senior Medical Officer, Integrated Treatment Centre, Hong Kong） 3. Emerging HIV epidemic in Taiwan ---**Chin-hui Yang** （Director of Third Division, Centers for Disease Control, Taiwan） 4. Current status of HIV/AIDS epidemic in Korea --- **Mee-Kyung Kee**（Senior Researcher, Division of AIDS, Korea National Institute of Health Korea Center for Disease Control and Prevention, Korea） 5. Social context and current status of HIV epidemic in Japan -- **Masahiro Kihara** (Department of Global Health and Socio-epidemiology, Kyoto University School of Public Health) **14:10-17:00 Supplementary meeting to the symposium** Informal small meeting to exchange more information among the speakers of the symposium on the situation of HIV/AIDS epidemic
2008-11-28	大阪→京都	赴 **UNAIDS** 設於京都大學之合作研究中心開會 Meeting of the East Asia HIV/AIDS Network at the UNAIDS Collaborating Centre, Kyoto University.
2008-11-29	京都→台北	返程

三、會議過程

此爲日本後天免疫缺乏症候群學會第 22 屆年會，總計有數百位日本醫師與愛滋病防治相關之公衛、流病專家來共襄盛舉。但是會議大多以日文進行，只有受邀演講的 11/27 那天的議程有英文口譯人員。令人遺憾的是，UNAIDS 亞太地區主席 J.V.R. Prasada Rao 於出發前因爲泰國曼谷抗議事件，機場封閉而無法成行，而中國代表則是在出發前幾天發生意外骨折，故無法參與會議。不過二人準備的檔案都已轉交給木原教授，所以由他代表來演講。

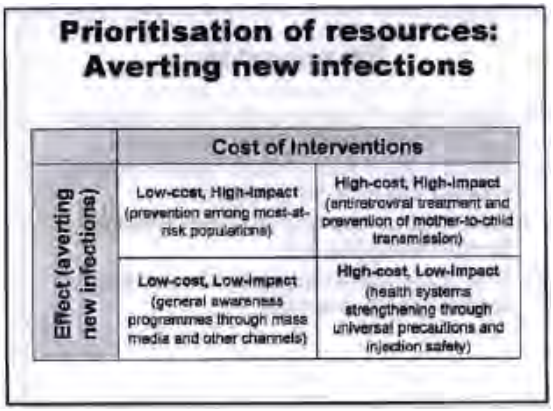
在亞洲 AIDS 疫情方面，目前人數能持續上升，在 2007 年的統計中，感染 HIV 仍存活個案達 5 百萬人，新感染者 44 萬人，30 萬人死亡。雖然亞洲仍是 HIV 低流行地區，但 AIDS 已成爲最重要死因。目前亞洲疫情仍侷限在高危險族群以及其配偶，並未進入到一般民眾，不過此風險性會與成年男性拜訪性工作者的比例而有所不同(此比例在不同國家有很大差別)。值得注意的是 HIV 疫情在男同性間性行爲族群(Man who had sex with man, MSM)快速成長，已成爲日本、香港、新加坡、泰國與中國新通報個案中最主要的傳染途徑。高危險族群間與一般民眾之間的交叉感染會是未來的隱憂。

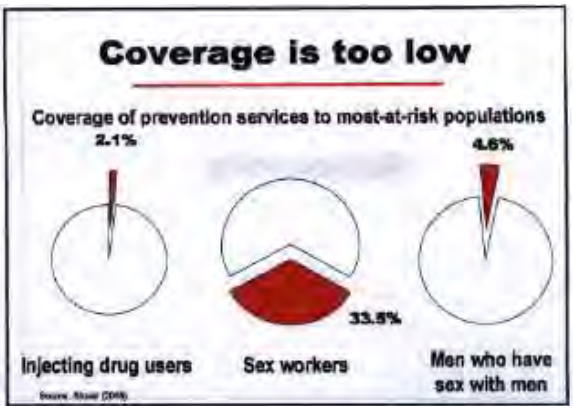




而在亞洲防治資源仍是十分短缺，超過半數是外來資源。因此，應該將資源投注於有高影響層面的防治策略，例如針對高危險族群的防治策略與抗病毒藥物治療及預防母子垂直感染，每一美元投入於預防，可以節省日後八美元的治療經費。

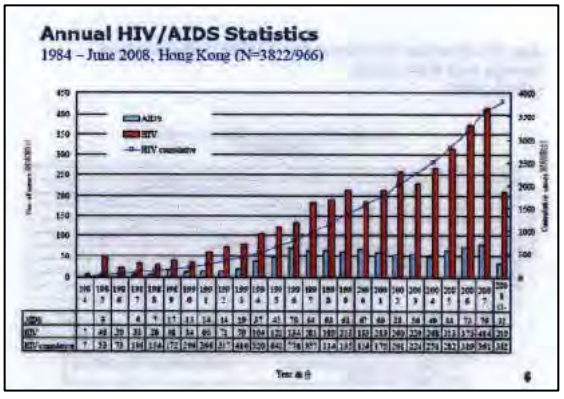
因此，各國應成立政策分析中心來提供 HIV 防治的科學證據，並希望能將防治經費從 1.2 億美元增加到 3.1 億美元，以便能進一步控制亞洲 HIV 疫情。

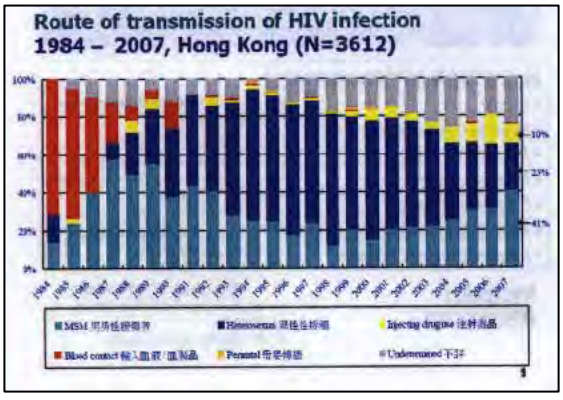




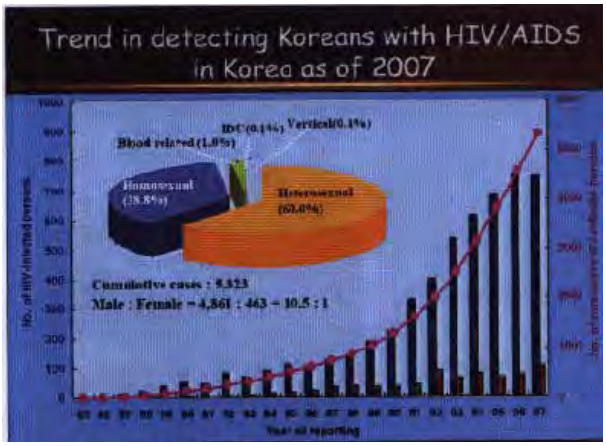
中國的 HIV 疫情仍持續成長，靜脈藥癮與性行爲傳染爲主要路徑。

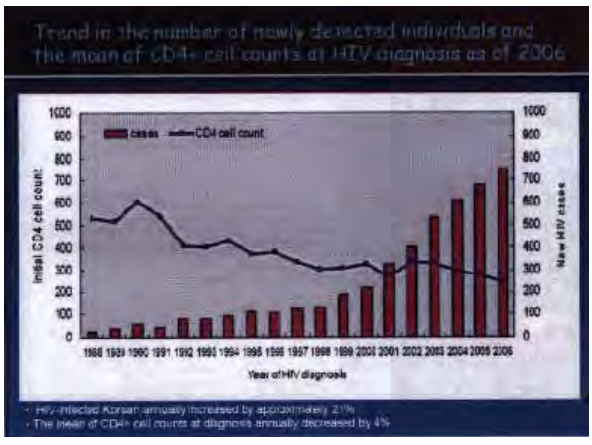
香港的疫情狀況由香港愛滋病特別預防計畫中心陳志偉醫師報告，目前香港至 2008 年 6 月累計 HIV 感染人數爲 3822 人，AIDS 個案爲 966 人，個案數逐年增加。篩檢 HIV 的人數維持穩定，每年約 8 萬人左右，但篩檢陽性率自 2004 年後逐年增加，在 2007 年爲 0.5%左右。而傳染途徑從異性間性行爲慢慢轉變爲以 MSM 爲主。香港 HIV 個案採不記名通報，所以在分析及追蹤時較不容易，但根據資料比對，HIV 新通報個案中，3 個月內發生 AIDS 的比例逐年下降，表示延遲診斷的比例有改善。在 2006 年到 2007 年間，一項針對 MSM 族群進行的行爲調查(PRiSM)發現，男同志與固定伴侶性行爲時使用保險套的比例爲 41%，而與非固定伴侶性行爲時使用保險套的比例爲 73%，測得的 HIV 陽性率爲 4.05%。而針對女性性工作者的調查 HIV 陽性率僅 0.19%。因此針對 MSM 族群，香港衛生部門與數個 NGO 合作，進行多項防治計畫，包括網路警察(針對不安全性行爲約會提出警告，追蹤陽性個案之網路伴侶等)，希望能進一步預防 MSM 族群 HIV 疫情的上昇。



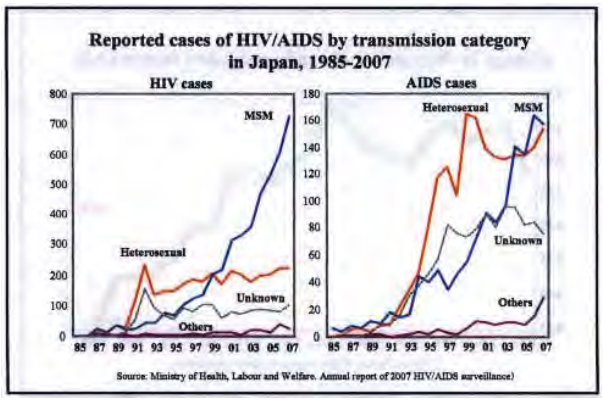


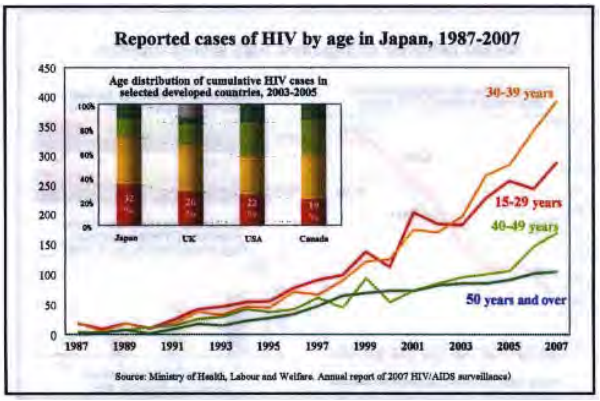
韓國的疫情是由韓國衛生部愛滋病組資深研究員 Mee-Kyung Kee 博士報告。目前韓國至 2007 年累計 HIV 感染人數爲 5323 人，個案數逐年增加，男女比例爲 10.5:1。傳染途徑中異性間性行爲佔 60%，MSM 佔 38.8%，受血者 1%，靜脈藥癮與垂直感染各佔 0.1%。每年篩檢 HIV 的人數(包括捐血者)亦逐年成長，在 2007 年達 736 萬人左右，早期的篩檢個案多是經由公共衛生機關進行的強制篩檢，近年來則逐漸轉變爲以醫院提供之病人自願性檢查篩檢系統爲主。篩檢陽性個案多半是來自醫院篩檢系統。根據 2005 年的醫院篩檢資料來看，HIV 盛行率爲每 10 萬人口 5.3 人，都市地區的盛行率是鄉村地區的 2 倍，男性是女性的 10 倍(14.1 vs. 1.3)，有趣的是篩檢人數中女性佔 69%，男性僅佔 31%。捐血者篩檢陽性率維持穩定，小於每 10 萬人口 0.2 人。韓國個案管理是採記名通報，與台灣相同。根據 2006 年的調查發現，HIV 新感染者的平均 CD4 爲 312 cells/mm^3，但是此數值呈現逐年下降的趨勢，而診斷 HVI 時 CD4 小於 200 cells/mm^3 的個案比例逐年上升，進一步分析發現年紀越大及診斷年代越近之新感染者其 CD4 越低，顯示延遲診斷的現象有增加的情形，這是必須注意的現象。而韓國亦提供免費高效能抗病毒治療(HAART)，累積到 2007 年底共有 980 人死亡，死亡率從 1985-1990 年間的 69%降到 2003-2007 年間的 10%，主要死因以 AIDS 相關疾病佔大部份(69.7%)，而 HIV 感染者接受 HAART 後，可以有很好的存活比率。結論是有效的治療可以有效的延長 HIV 感染者的生命，所以如何推行有效的篩檢政策，以期能早期診斷早期治療，成爲目前最重要的課題。





日本的疫情是由木原教授報告，目前日本至 2007 年累計 HIV 感染人數爲 9426 人，其中 AIDS 個案數爲 4468，個案數逐年增加，男女比例爲 4:1。傳染途徑中異性間性行爲佔 41.5%，MSM 佔 47.3%，靜脈藥癮佔 0.1%，垂直感染佔 0.3%，其他 2.2%，不詳佔 15.6%。其中日本人與非日本人的比例各爲 77%和 23%。近年來 MSM 的個案數迅速增加，成爲最主要的傳染途徑。年齡層分布以 30 到 39 歲之間佔最多數，而 15 到 29 歲的個案其次，其在 2003 到 2005 年的個案中佔 32%，此比例顯著高於英國(26%)、美國(22%)與加拿大(19%)。若以日本各地區來做比較，東京地區個案數最高，其次是關西地區(大阪、京都、神戶及名古屋)，若以增加速度來看，關西地區是最嚴中的地區，其 2007 年個案數與 2000 年相比，增加了 290%。另一個值得注意的現象是捐血者之 HIV 盛行率逐年增加，到 2007 年已達每 10 萬人口 2.06 人。這可能是因爲 HIV 篩檢地點的不足或費用較高，使得高危險族群利用捐血來檢測 HIV。另一個問題是日本高中學生發生性行爲的比例逐年增加，且性伴侶超過 4 人的比例高達 20%，但是日本每年船運輸入的保險套量卻是逐年降低，顯示不安全性行爲的比例增加。最後木原博士提到亞洲各國人民往來頻繁，HIV 疫情的資訊交流與 HIV 防治會是未來的需要努力的地方。

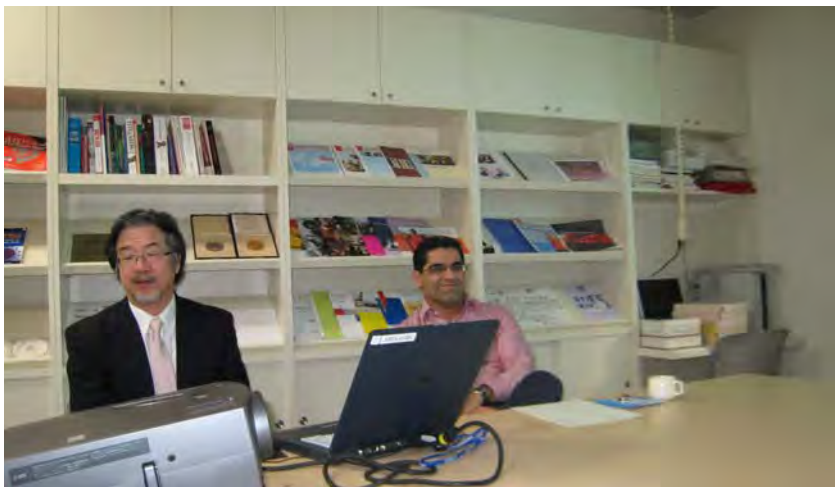




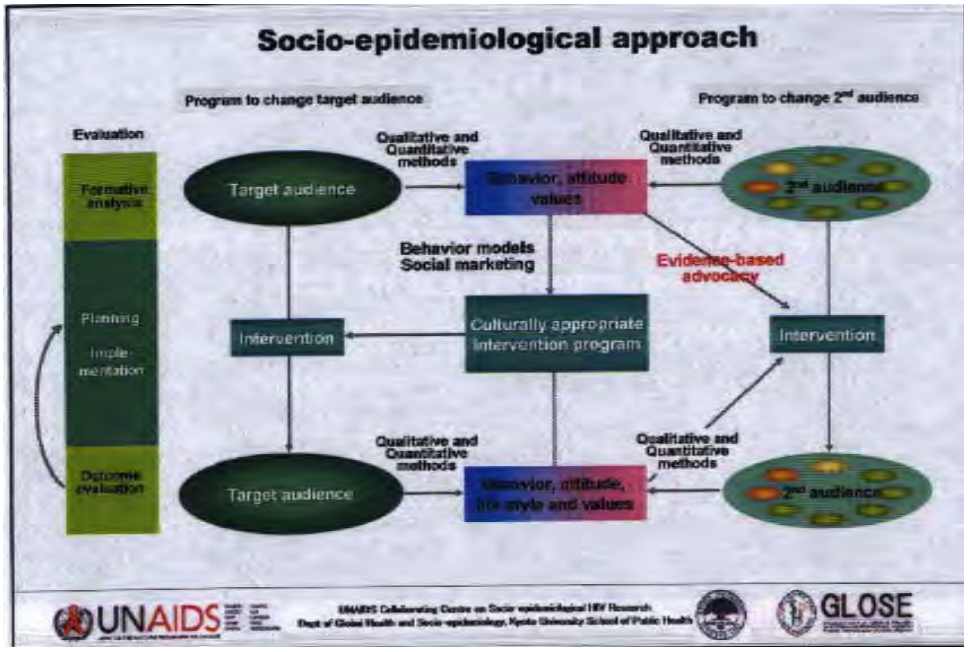
下午的會議是與會者的座談會，各國代表以及日本的專家們一起討論各國愛滋病防治的相關政策，包括愛滋防治的政府組織結構、通報系統(記名或匿名等)、法規、特殊族群的防治如 MSM 與靜脈藥癮者、年輕族群的安全性教育等等。與會者皆熱烈討論，一直到下午 5 點才結束今日的會議。

左三：香港陳志偉醫師
左四：本人
左五：韓國 Mee-Kyung Kee 博士
左六：木原教授

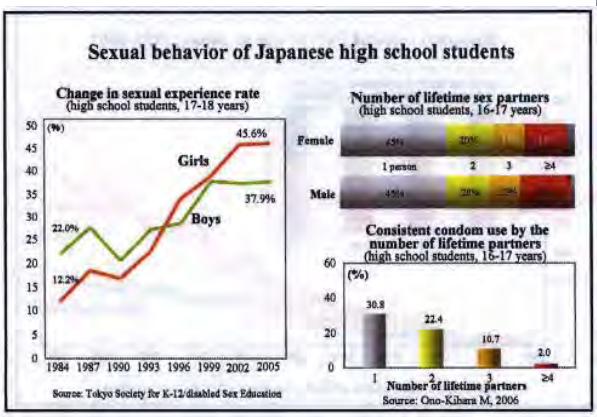
隔日的早晨由木原教授安排，搭車前往京都大學，參訪設置於京都大學的 UNAIDS 國際合作 HIV 社會流病研究中心(UNAIDS Collaborating Centre on Socio-epidemiological HIV Research)。這個中心成立於 2006 年 10 月 12 日，主要是希望藉由社會流行病學的研究方法，這是整合質性研究與量性研究的方法、以及社會學籍流行病學的觀點，加上以往該中心在性行爲與 HIV 介入研究上的豐富經驗來進行 HIV 防治。

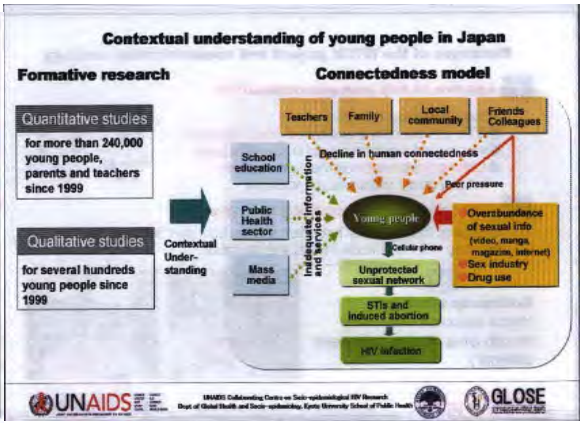


左: 木原教授
右：Saman Zamani

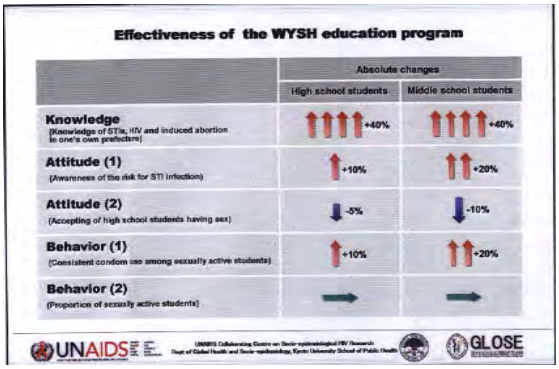


該中心的主持人是木原教授的太太，Masako Ono-Kihara 助理教授，她致力於年輕人之安全性行爲以及 HIV 防治教育多年，在這方面有許多傑出的成果。她目前的 WYSH 計畫(Wellbeing of Youth in Social Happiness)是針對國高中學生的 HIV 防治計劃，獲得 UNAIDS、日本衛生部與日本教育部的贊助，每年經費高達 50,000 美元。Ono-Kihara 教授在 1999 年開始進行年輕族群的性行爲調查，至今已回收 240,000 份問卷，並深入訪談超過 500 位日本高中學生，研究發現高中學生發生性行爲的比例逐年增加，且性伴侶超過 4 人的比例高達 20%。而容易有危險行爲的年輕族群其特徵是與家人、老師、朋友的互動減少，使用行動電話傳送簡訊的次數增加等，一天傳送超過 40 封簡訊以上的年輕人其對性行爲的觀念與經驗均最危險。





而 WYSH 計畫是藉由高中進行愛滋防治及保險套使用衛教，設計 90 分鐘的課程，先針對老師進行一天的訓練課程，包括知識以及如何讚賞學生並與學生互動等。之後由研究人員到高中針對一個班級的學生進行 90 分鐘的衛教，其中包括幾個重點：風險認知、性病的可怕、如何面對有關性議題的同儕壓力、如何正確使用保險套等，衛教時邀請所有種子教師觀摩，之後由各種子教師到其他班級進行衛教。參與計畫的學生，不管在 HIV 知識、性行爲態度上都有顯著的改善。此計劃自 2002 年起，到 2007 年已有 39 個高中加入，並成爲日本教育部正式推動的計劃。



另一位助理教授爲 Saman Zamani，他是伊朗人，在日本已長達 8 年的時間。其主要進行的是針對伊朗靜脈藥癮族群的 HIV 防治計劃(HADI projects and bio-behavioral surv eillance in Iran)，針對伊朗監獄內推行美沙冬替代治療進行評估，目前因爲伊朗政府政黨更換而面臨推動政策上的困難，不過其仍舊繼續努力中。

席間各國代表亦互相討論一些危險族群的防治政策，例如 MSM 族群等，交換許多意見，並建議日後應多交流，以期能合作並抑制亞洲地區 HIV 的疫情。經過熱烈的討論後，完滿的結束兩天的議程。本人亦於隔日即啓程返回台北。

三、心得及建議：

此次會議不僅在愛滋的議題上有充分的討論，同時對各國的HIV疫情、政府的愛滋防治策略都有進一步的了解，目前亞洲地區間人民往來頻繁，此項交流有助於進一步防治HIV疫情。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其他國家的讚賞，但是目前以MSM爲主的疫情已逐漸成爲亞洲地區HIV疫情的下一波主力，針對此族群社區及行爲介入均是重要的防治模式，而亞洲地區的國情與歐美等先進國家不盡相同，所以可能要彼此觀摩已得到較好的防治模式。因此建議應繼續派人員參與此盛會，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。

台灣最近的 HIV 個案疫調發現，網路成爲 MSM 尋找性伴侶的主要途徑，香港針對 MSM 族群與 NGO 合作進行的網路警察(針對不安全性行爲約會提出警告，追蹤陽性個案之網路伴侶等)防治計畫，亦是針對此途徑而設計，故發展網路 HIV 防治模式亦是我國重要防治策略之一。

目前台灣仍有已定比例之年輕族群的HIV感染者，而日本針對國高中學生的安全性教育及HIV防治計劃有很好的效果，國內相關於此族群危險行爲的調查較少，建議進行調查並加強使用保險套、延後第一次性行爲年齡等介入計劃，以保護年輕族群不受HIV的威脅。

Redefining AIDS in Asia: Crafting an effective response

JVR Prasada Rao
Director , UNAIDS Regional Support Team for Asia and the Pacific

27th November 2008

Outline

- Why this Commission?
- Characteristics of Asian Epidemic
- Current level of response
- Involvement of the communities
- Recommendations
- The Way Forward

Why this Commission?

- Asia has a unique opportunity as a result of:
  - Late introduction of HIV
  - Proven success of prevention (Thailand, Cambodia, parts of India)
  - Growing economic prosperity and availability of resource
- Still, the epidemic continues to grow…

State of the epidemic (2007)

- People living with HIV: almost 5 million
- People newly-infected by HIV: 440,000
- Deaths due to AIDS in 2007: 300,000
- 1.7 million in need of ART
- 1 million estimated orphans

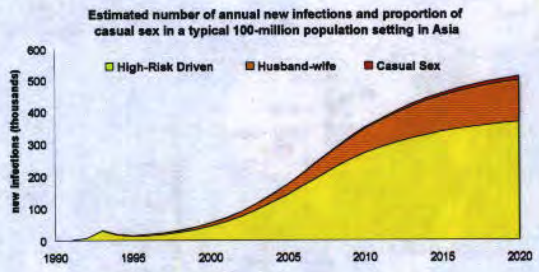
Epidemic Characteristics

AIDS--the largest cause of death despite low prevalence

Over 3.5 million AIDS deaths since the beginning of the epidemic

26 m/s male

Asian epidemic not driven by casual sex in general population



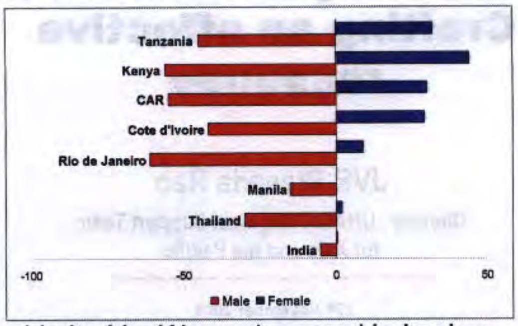
but by percentage of adult men visiting sex workers

Varied patterns of adult male behavior in Asia

Percentage adult male visiting sex workers	Countries
10-20%	Thailand, Cambodia
5-10%	India, China, Indonesia
2-5%	Laos, Philippines

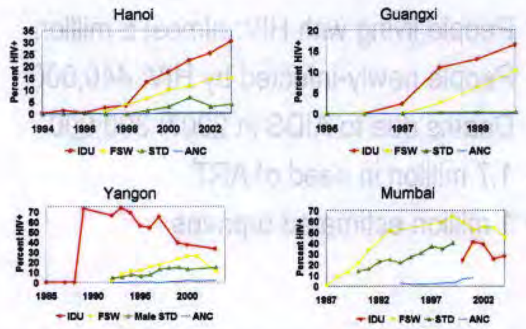
(1999之統計) 日本 逾 40–50% 的年輕人有過

Epidemic Characteristics



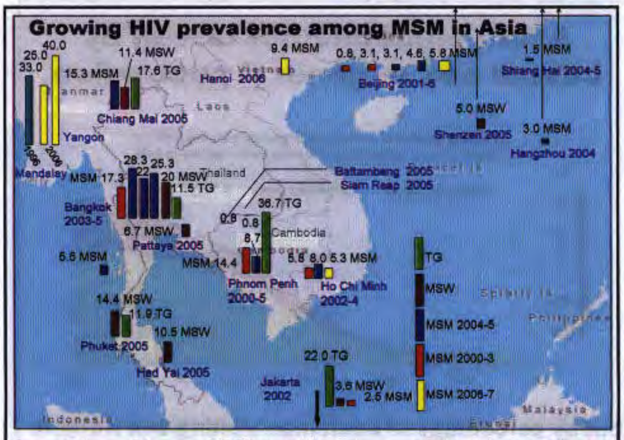
Limited by Women's sexual behaviors

Injecting drug use often seeds sex work components of epidemics



Rapidly growing epidemics among MSM

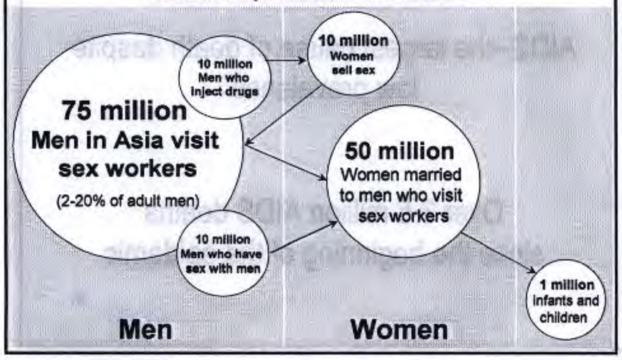
- Data is finally becoming available:
- The more we look, the more we find
  - China (Beijing)
  - Thailand (BKK)
  - Vietnam
  - India
- MSM are now a major source of reported new male infections in:
  - Japan, Hong Kong, Singapore, Thailand, China
  - And the rate of new cases is accelerating



Source: Frits van Griensven, CDC,Epi of HIV & STI among MSM in Asia, ICAAP 8, 2007

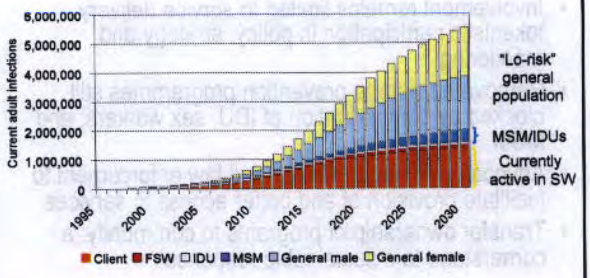
Epidemic Characteristics

Asian Population: 3.3 billion



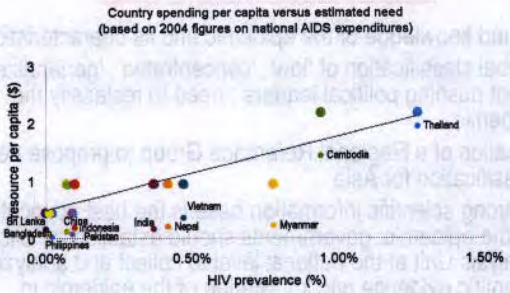
Epidemic impacts the "general population"

(from risk in the past)

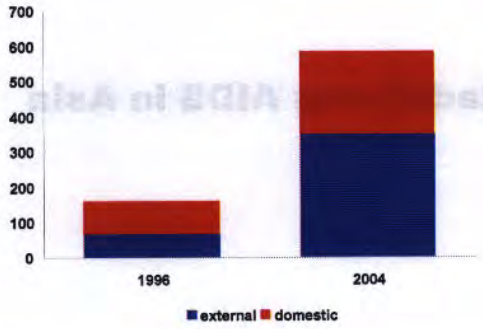


Resources

Resources still fall short



Resources are mostly external



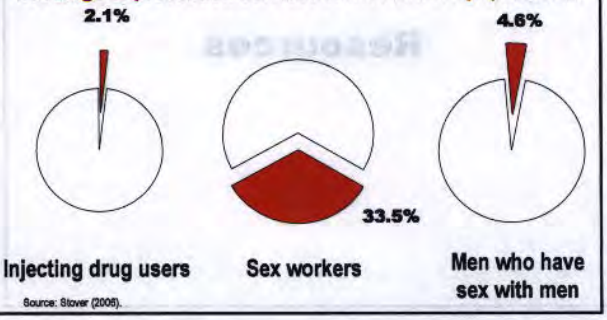
Prioritisation of resources: Averting new infections

	Cost of Interventions	
Effect (averting new infections)	**Low-cost, High-Impact** (prevention among most-at-risk populations)	**High-cost, High-Impact** (antiretroviral treatment and prevention of mother-to-child transmission)
	Low-cost, Low-Impact (general awareness programmes through mass media and other channels)	**High-cost, Low-Impact** (health systems strengthening through universal precautions and injection safety)

Current-level of Response

Coverage is too low

Coverage of prevention services to most-at-risk populations



Source: Stover (2006).

Why community involvement is critical

- Involvement remains limited to service delivery – tokenistic participation in policy, strategy and monitoring
- Remove barriers to prevention programmes still blocked by criminalisation of IDU, sex workers, and MSM
- Advocate with local leaders and law enforcement to facilitate provision of and better access to services
- Transfer ownership of programs to community: a cornerstone to a sustainable response

Redefining AIDS in Asia

Redefining AIDS in Asia

- Sound knowledge of the epidemic and its characteristics
- Global classification of 'low', 'concentrated', 'generalized' is not pushing political leaders : need to reclassify the epidemic
- Creation of a Regional Reference Group to propose new classification for Asia
- A strong scientific information base is the best advocate for the epidemic: governments should establish a Policy Analysis Unit at the national level to collect and analyze scientific evidence and knowledge of the epidemic to inform national programmes.

Crafting an effective response

Resources

- Scale-up from $1.2 billion to $3.1 billion: Suggests a normative standard of $0.50 to $1 for prevention, treatment, and impact mitigation depending on the prevalence levels of HIV in countries
- Invest in high-impact programs: these should be funded from AIDS budgets
- Other costly but low impact programs should be covered by national budgets

Cost of a Priority Response

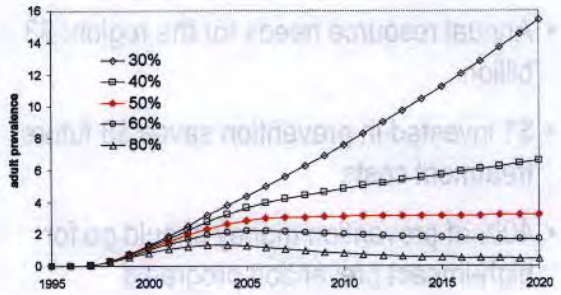
Interventions	Total Cost (millions USD)	% of total
High-impact prevention	$1,338	43%
Treatment by ART	$761	24%
Impact mitigation	$321	10%
Programme Management	$363	12%
Creation of an Enabling Environment	$359	11%
Total	$3,143	100%

Average total cost per capita ranges from $0.50 to $1.70, depending on the stage of the epidemic.

Prevention in Asia

- High-impact prevention should receive at least 40% funding - $ 0.30 per capita
- Removal of road blocks to accessing services (enabling environment) – integrate additional 10% of funding into prevention
- Prevention coverage must reach 80% to reverse the trend of the epidemic

Prevention: coverage is critical



Providing Treatment: the 4 A's

- An effective antiretroviral therapy programme must ensure:
  - Affordability of antiretroviral drugs
  - Availability and quality of ARVs and services – no distinction between first line and second line drugs
  - Accessibility through outreach for poor and marginalized populations
  - Adherence through community support

Treatment: Universal Access is feasible in Asia

All other Asian countries (121,010 people or 11%)

China, India, Myanmar, and Thailand (946,000 people or 89%)

Impact Mitigation: Programmes non-existent in Asia

- Not part of national strategies in most Asian countries
- Programmes must include:
  - Income support for foster-parents
  - Livelihood security for widows and affected families
  - Health insurance to protect against catastrophic health expenditures

Meaningful involvement of civil society

- Public private partnerships to finance community based programmes: Singapore's Health Promotion Board a good model to start
- Community involvement in HIV prevention, treatment, impact mitigation services for most-at-risk populations
- Involve networks of positive people for recruitment into treatment and impact mitigation programmes

Leadership and Governance

- Representative National AIDS Commissions with involvement of relevant actors/ministries
- Head of Government should provide leadership to NAC
- Good governance structures for national programmes with committed leadership
- Involve parliamentarians – parliamentary fora on AIDS
- AIDS is not crisis management, but a development opportunity to carry out societal reforms

What is new?

What is new: resources

- Annual resource needs for the region: $3 billion
- $1 invested in prevention saves $8 future treatment costs
- 40% of prevention money should go for high-impact prevention programs

What is new: programming

- Impact mitigation programs for affected families: orphans and women lose livelihood sustainability as a result of AIDS death
- Horizontal versus vertical programming not mutually exclusive-need blend of both
- Public-private partnership for efficient fund transfer to civil society

What is new: initiatives

- 'AIDS Watch' bodies – to ensure accountability at country and regional levels
- Biannual impact assessment to understand the socioeconomic impact at the national level

Universal Access: achievable and not merely aspirational goal

If Asian Governments deploy resources effectively, they can halt and reverse the epidemic to fulfill Universal Access and achieve the Millennium Development Goals.

What is new: initiatives

- 'AIDS Watch' bodies – to ensure accountability at country and regional levels
- Biannual impact assessment to understand the socioeconomic impact at the national level
- Universal Access: an achievable and not merely aspirational goal

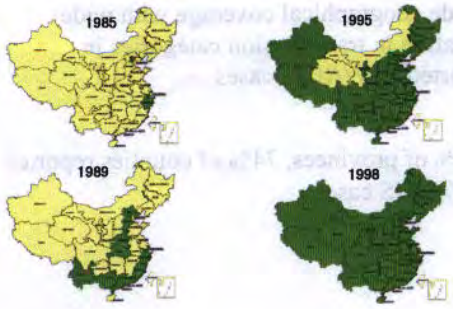
HIV/AIDS Epidemic in China

Lu Fan, M.D., Ph.D.

National Center of AIDS/STD Control and Prevention, China CDC, Beijing

Nov. 27, 2008

Spread of HIV in provinces: Overview



Reported HIV/AIDS cases

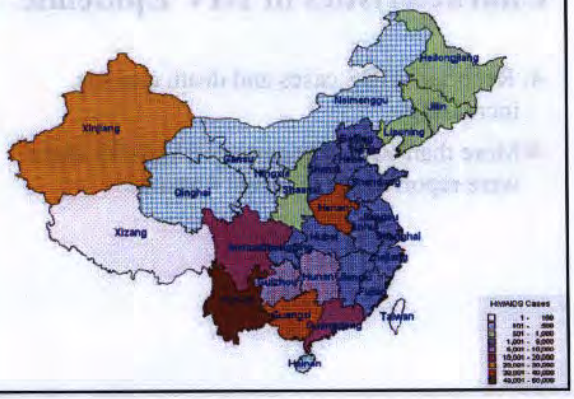
By the end of July 2008, the cumulative total of reported:

- HIV + 257668,
- AIDS cases 75257
- deaths 32155

Estimated HIV/AIDS Cases

- In 2007 MOH, UNAIDS and WHO have prepared this updated assessment of the AIDS epidemic in China.
- **Number of people living with HIV:** by the end of December 2007, the current HIV positives were approximately 700,000 (range 550,000-850,000). The proportion of females is 30.8 per cent. The HIV infection rate among China's population is 0.05 per cent
- The estimated number of AIDS cases is 85,000 (range 80,000-90,000).
- The estimated new HIV positive cases in 2007 were 50,000 (range 40,000-60,000) and
- there are an estimated 20,000 AIDS related deaths (range 15,000-25,000).

Geographic distribution of cumulative reported HIV positives



Molecular epidemiology of HIV in China

Characteristics of HIV Epidemic

1. Wide geographical coverage with wide variation in transmission categories in reported HIV/AIDS cases

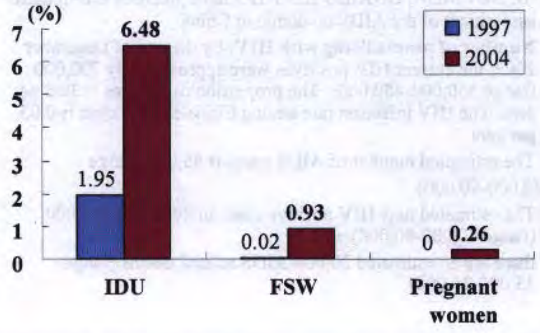
- 100% of provinces, 74% of counties reported HIV/AIDS cases

Characteristics of HIV Epidemic

2. Epidemic is growing

- Prevalence of HIV is increasing among IDU, MSM,FSW, Pregnant women

Change of HIV prevalence in selected groups（1997，2004）

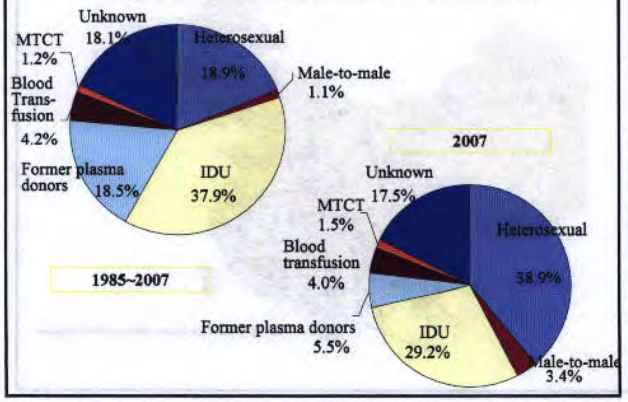


Characteristics of HIV Epidemic

3. Sexual transmission is going to become the main mode

- It is estimated that there are 50,000 new infection in 2007, of them, 44.7% were infected heterosexually, and 12.2% were infected by male-to-male sex.

Sexual Transmission is increasing

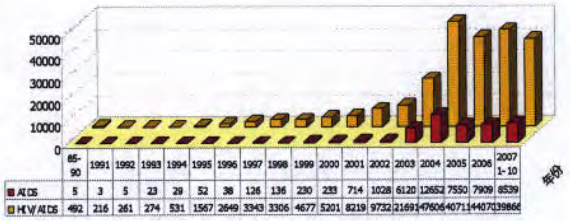


Characteristics of HIV Epidemic

4. Reported AIDS cases and death cases is increasing

- More than 60% of reported HIV/AIDS cases were reported in the recent 4 years

Reported AIDS Cases and Death by Year



Characteristics of HIV Epidemic

5. HIV is transmitting from high risk groups to general population

- In some area in Yunnan, Xinjiang provinces, the prevalence rate of HIV among pregnant women is over 1%.

Characteristics of HIV Epidemic

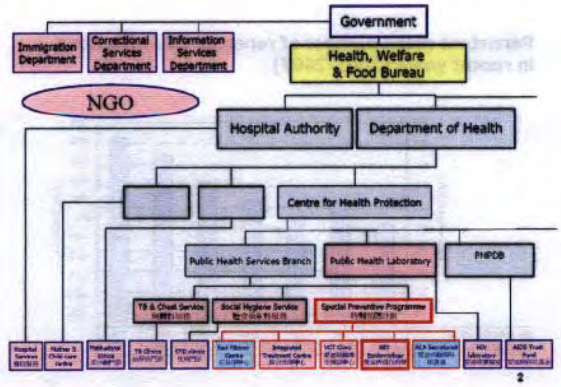
6. Risk factors

- BSS result: 45.5% IDUs share needle, 11% of them have commercial sexual behavior
- Population mobilization will be a factor for HIV spread

Changing profile of HIV/AIDS epidemic in Hong Kong

KCW Chan
Osaka, Japan
Nov 2008

1



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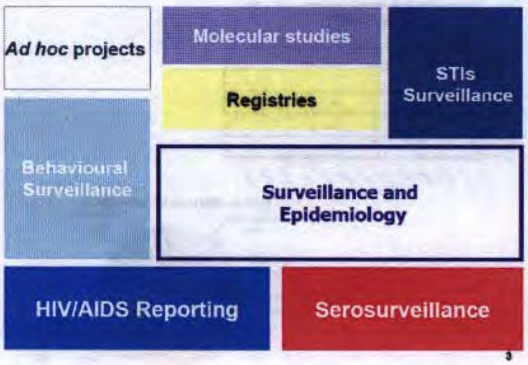


3

HIV/AIDS Reporting System

Major fields of information:

- Gender
- Ethnicity (Chinese –Y/N)
- Age (Adult –Y/N)
- Source of reports
- Progression to AIDS
- Route of transmission
- Suspected place of infection

Voluntary
Anonymous

Major source of physician reports

- Government clinics
  - KBITC and YMT VCT
  - QEH Special Medical Service
  - Social Hygiene Clinic (STI clinics)
  - Methadone Clinics
  - Tuberculosis Clinic
  - Other public hospitals/clinics
- NGOs providing VCT
  - AIDS Concern
  - Hong Kong AIDS Foundation
- HK Red Cross Blood Transfusion Service
- Private clinics and hospitals

4

Advantages:

- encourages reporting
- protects confidentiality

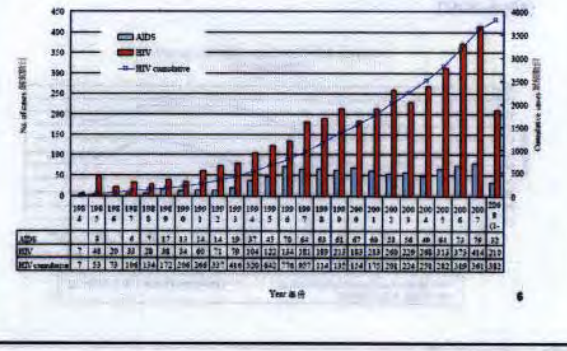
Limitations:

- risk of duplication
- limited verification of data
- difficulty in tracking outcome

5

Annual HIV/AIDS Statistics

1984 – June 2008, Hong Kong (N=3822/966)



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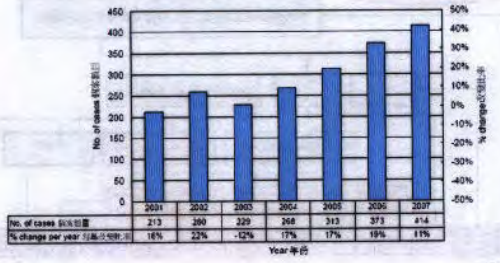
Persistent rising number of reported HIV infections in recent years (2001-2007)

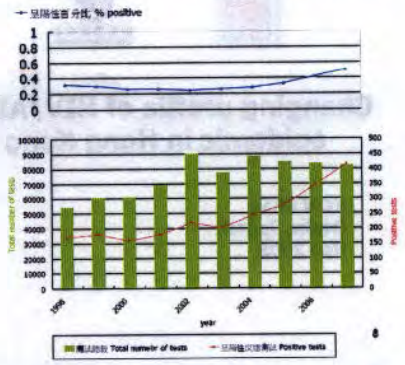


	2001	2002	2003	2004	2005	2006	2007
No. of cases	213	260	229	268	313	373	414
% change per year	16%	22%	-12%	17%	17%	19%	11%

7

Number of HIV tests performed by Government Public Health Laboratory

Number of tests performed by Government Public Health Laboratory remains stable, though more positive cases are picked up since 2005



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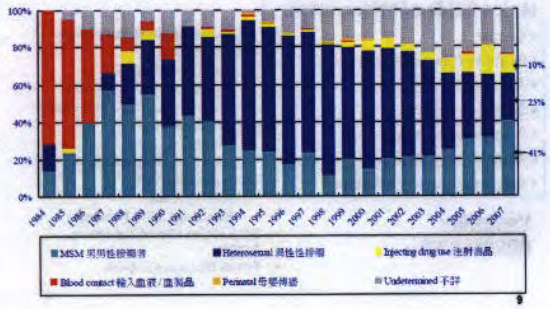
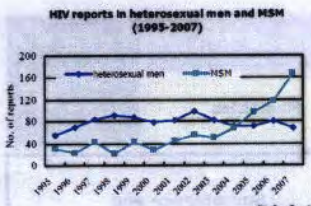
Route of transmission of HIV infection 1984 – 2007, Hong Kong (N=3612)

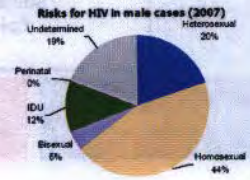


9

HIV reports in heterosexual men and MSM (1995-2007)

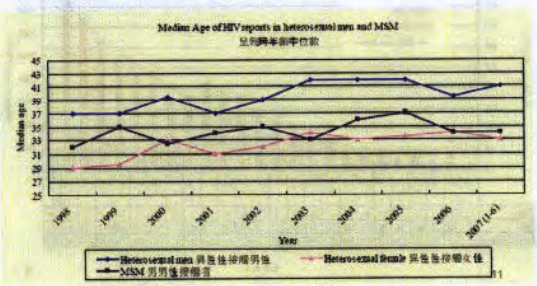


Risks for HIV in male cases (2007)



10

Age distribution of heterosexual male, heterosexual female and MSM cases (1998-2007)



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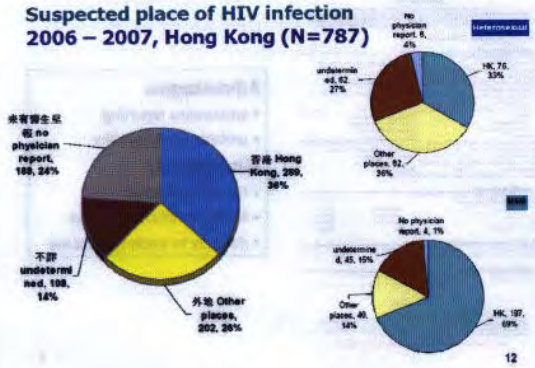
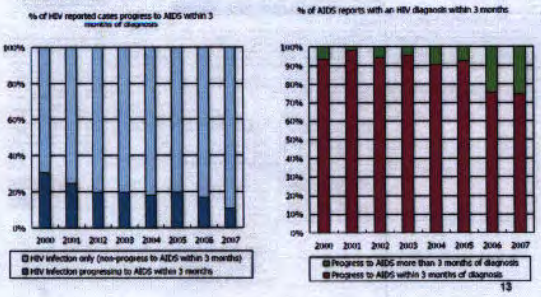
Suspected place of HIV infection 2006 – 2007, Hong Kong (N=787)



12

Percentage of newly diagnosed progressing to AIDS within 3 months 2000 – 2007



13

Reported CD4 levels at HIV diagnosis – room for improvement

Year	No. of HIV reports	No. of CD4 reports (%)		Median CD4 (cell/ul)	CD4>=200 (cell/ul) (%)	
2001	213	162	(76.1%)	233.5	85	(52.5%)
2002	260	201	(77.3%)	197	100	(49.8%)
2003	229	166	(72.5%)	205	85	(51.2%)
2004	268	177	(66.0%)	215	95	(53.7%)
2005	313	210	(67.1%)	199.5	105	(50.0%)
2006	373	230	(61.7%)	216.5	122	(53.0%)

Special Preventive Programme. HIV Surveillance Report – 2006 Update.

14

PRiSM - HIV Prevalence and Risk behavioural Survey of Men who have sex with men (MSM)

- Collaboration of the Department of Health, AIDS Concern and the Chinese University of Hong Kong
- the first systematic sero-prevalence survey of MSM in Hong Kong
- 6-week period from Dec 2006 to Jan 2007

15

Seroprevalence

- 859 eligible samples with questionnaires collected
  - 400 bars
  - 459 saunas
- 37 tested positive samples
- Overall adjusted seroprevalence (with the sampling proportion): 4.05% (95% CI: 4.028%-4.080%)

16

Condom use

Indicator	Result
Had anal sex with regular partner in previous 6 months	39%
Rate of consistent condom use in anal sex with regular partner	41%
Had anal sex with causal partner in Hong Kong in previous 6 months	50%
Rate of consistent condom use in anal sex with causal partner in Hong Kong	73%
Anal sex condom usage rate at last sex with causal partner in Hong Kong	91%

17

Community Based Risk Behavioural and Seroprevalence Survey of Female Sex Workers in Hong Kong - CRiSP

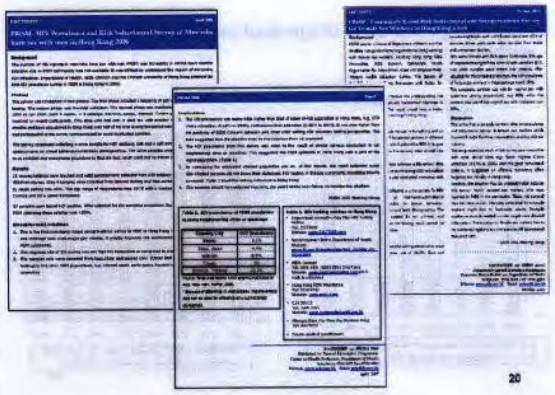
- CRiSP 2006 was an initiative jointly organised by Dept of Health and 5 NGOs:
  - Action for Reachout (AFRO)
  - AIDS Concern
  - Community Organisation for Intervention, Care and Empowerment (CHOICE)
  - Hong Kong AIDS Foundation
  - Project Mercury of The Society of Rehabilitation and Crime Prevention (SRACP)

18

Seroprevalence

- 5 samples tested positive out of 996 eligible samples
- Adjusted prevalence: 0.19%
- All positives were from non-Chinese

19



20

2003-2007 Seroprevalence of various populations

	2003	2004	2005	2006	2007
較高風險人群 Population with higher HIV risk					
性病求診者 STD clinics attendees	0.08%	0.11%	0.07%	0.13%	0.15%
美沙酮使用者 Methadone clinics attendees	0.25%	0.20%	0.32%	0.36%	0.36%
戒毒康復中心/矯定 Drug rehab center inmates	0.28%	--	0%	0.51%	0%
女性性工作者 Female sex workers	--	--	--	0.19%	--
男男性接觸者 Men who have sex with men	--	--	--	4.05%	--
較低風險人群 Population without HIV risk					
接受產前服務的孕婦 Women receiving public antenatal service	0.02%	0.01%	0.01%	0.02%	0.02%
獻血者 Blood donors	0.003%	0.001%	0.002%	0.003%	0.004%
風險程度未明人群 Population with undefined HIV risk					
監獄囚人 Prisoners	0.33%	0.35%	0.30%	0.47%	0.23%
肺結核病人 People with tuberculosis	0.06%	0.31%	0.25%	0.19%	0.25%

21

HIV Subtypes in Hong Kong

	2001	2002	2003	2004	2005	2006
Annual HIV Reports	213	260	229	268	313	373
No of reports with subtypes (%)	90 (42%)	228 (88%)	204 (89%)	202 (75%)	258 (82%)	294 (79%)
Subtype (%)						
CRF01_AE	56 (26%)	122 (47%)	99 (43%)	95 (35%)	125 (40%)	140 (38%)
B	24 (11%)	78 (30%)	60 (26%)	71 (26%)	101 (32%)	114 (31%)
CRF08_BC	0 (0%)	1 (<1%)	4 (2%)	10 (4%)	6 (2%)	11 (3%)
C	5 (2%)	15 (6%)	21 (9%)	3 (1%)	2 (1%)	6 (2%)
Others	5 (2%)	12 (5%)	20 (9%)	23 (9%)	24 (8%)	23 (6%)

Special Preventive Programme. HIV Surveillance Report – 2006 Update

22

Improving HIV surveillance in Hong Kong through molecular characterization with a regional perspective

Table 1. Distribution of HIV-1 subtypes in Hong Kong, Shenzhen, Guangzhou and Macau

	CRF01_AE	B	CRF07_BC	CRF08_BC	CRF01_AG	CRF02_AG	C	G	A1	F	CRF06_cpx	CRF14_BF	Total
	No. (%)												
HK	155 (46.8%)	127 (38.1%)	14 (4.2%)	15 (4.5%)	6 (1.8%)	3 (0.9%)	8 (2.4%)	1 (0.3%)	2 (0.6%)	1 (0.3%)	1 (0.3%)	--	333
SZ	64 (60.9%)	16 (15.2%)	13 (12.4%)	10 (9.5%)	--	--	1 (1.0%)	--	--	--	1 (1.0%)	--	105
GZ	35 (28.9%)	7 (5.8%)	65 (53.7%)	12 (9.9%)	1 (0.8%)	--	--	--	--	--	1 (0.8%)	--	121
MC	12 (52.3%)	7 (30.4%)	--	--	--	--	--	--	1 (4.3%)	--	--	3 (13.0%)	23
Total	286 (45.7%)	157 (27.8%)	92 (16.8%)	37 (6.4%)	7 (1.2%)	3 (0.5%)	9 (1.2%)	1 (0.2%)	3 (0.5%)	1 (0.2%)	3 (0.5%)	3 (0.5%)	582

Health Research Symposium 2007, 29 September 2007, Hong Kong. [Poster E03]

23

Investigation of a large cluster of HIV-1 subtype B infections in Hong Kong

	Cluster-cases (n=33)	Non-cluster cases (n=57)	p-value
Ethnicity			
Chinese	31 (94%)	51 (89%)	0.71#
Non-Chinese	2(6%)	6 (11%)	
Duration (months) since diagnosis (median)	1 – 44 (6)	2 – 30 (8)	
Age (years) at diagnosis (median)	22-54 (34)	22-62 (37)	0.42=
CD4 count at diagnosis (median), cells/uL	72-953 (349)	4-779 (323)	0.685=
Place of infection			
Hong Kong	31 (94%)	45 (79%)	0.06*
Likely/possibly outside Hong Kong	2 (6%)	12 (21%)	
Had casual sex partner(s)	32 (100%)	53 (96%)	0.52#
Reported settings for finding casual partners^			
Physical venue^	24 (73%)	46 (81%)	0.38*
Gay websites	24 (73%)	27 (47%)	0.02*
Condom use in anal intercourse			
with regular partner(s)	25% (6/24)	27% (13/49)	
with casual partners	68% (21/31)	62% (31/50)	
Condom use in oral sex	0%	0%	

Face to face interviews conducted:

No epidemiologic link except for the more common use of gay websites to find partner

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Other findings

- Risk factors associated with the cluster
  - high level of sexual risk behaviours
  - concurrent sexually transmitted infections
  - use of internet to seek sex partners
  - participation in private group sex activities
  - associated abuse of psychotropic substances

Conclusion: prevalent and endemic strains in the wider MSM community

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High Rates of Forward Transmission Events after Acute/Early HIV-1 Infection

Diane G. Brenner,[1] Michel Roger,[2] Jean-Pierre Routy,[3] Daniela Moisi,[1] Michel Ntemgwa,[1] Claudine Matte,[1] Jean-Guy Baril,[4] Rejean Thomas,[5] Danielle Rouleau,[3] Julie Bruneau,[6] Roger Lefebvre,[7] Mario Legault,[8] Cecile Tremblay,[9] Rupert Ghanem,[10] Mark A. Wainberg,[1] and the Montreal Primary HIV Infection Study Group[a]

[1]McGill AIDS Centre–Jewish General Hospital, [2]Centre Hospitalier de l'Université de Montréal (CHUM)–Hôtel Notre-Dame, [3]McGill University Health Centre, [4]Clinique Médicale du Quartier Latin, [5]Clinique Médicale l'Actuel, [6]CHUM–Hôpital St. Luc, [7]Clinique Médicale Goldberg, Lefebvre, & Associates, [8]Centre de la Prévention en Santé de Québec–SIDA Retrovir, [9]CHUM–Hôtel Dieu, and [10]Institut National de Santé Publique du Québec, Montréal, Canada

(See the editorial commentary by Pillay and Fisher, on pages 824–6.)

Background. A population-based phylogenetic approach was used to characterize human immunodeficiency virus (HIV)–transmission dynamics in Quebec.

Methods. HIV-1 *pol* sequences included primary HIV infections (PHIs: <6 months after seroconversion) from the Quebec PHI cohort (1998–2005: $n = 213$) and the provincial genotyping program (2001–2005: $n = 481$). Phylogenetic analysis determined sequence interrelationships among unique PHIs ($n = 293$) and infections from untreated ($n = 135$) and treated ($n = 660$) chronically infected (CI) potential transmitter populations (2001–2005). Clinical features, risk factors, and drug resistance for clustered and nonclustered transmission events were ascertained.

Results. Viruses from 49.4% (293/593) of PHIs coalesced into 75 transmission chains with 2–17 transmissions/cluster. Half of the clusters included 2.7 ± 0.8 (mean ± SD) transmissions, whereas the remainder had 8.8 ± 3.5 transmissions. Maximum periods for onward transmission in clusters were 15.2 ± 9.5 months. Coclustering of untreated and treated CIs with PHIs were infrequent (6.2% and 4.8%, respectively). The ages, viremia, and risk factors were similar for clustered and nonclustered transmission events. Low prevalence of drug resistance in PHI supported amplified transmissions at early stages.

Conclusions. Early infection accounts for approximately half of onward transmissions in this urban North American study. Therapy at early stages of disease may prevent onward HIV transmission.

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Box A8. Recent infection within one year of HIV diagnosis

	2001	2002	2003	2004	2005	2006
	No. (%)					
Total	102	141	109	140	172	227
**Recent infection*						
Yes	8(7.9%)	19(13.7%)	13(12.1%)	19(13.6%)	31(18.1%)	23(10.1%)
No	93(92.1%)	120(86.3%)	94(87.9%)	121(86.4%)	140(81.9%)	204(89.9%)
Negative HIV antibody within 1 year						
Yes	4(3.9%)	15(10.6%)	11(10.1%)	15(10.7%)	18(10.5%)	17(7.5%)
No	98(96.1%)	126(89.4%)	98(89.9%)	125(89.3%)	154(89.5%)	210(92.5%)
Seroconversion illness within 1 year						
Yes	4(3.9%)	6(4.3%)	6(5.5%)	12(8.6%)	20(11.6%)	15(6.6%)
No	98(96.1%)	135(95.7%)	103(94.5%)	128(91.4%)	152(88.4%)	212(93.4%)

*(a) a last negative HIV antibody test within 12 months prior to the first positive result, and/or (b) seroconversion illness within 12 months prior to the first positive HIV antibody result.

Tracking the characteristics and outcome of HIV/AIDS patients cared for at the Integrated Treatment Centre - *A Report of 1999 to 2006. 2007*

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In summary

- MSM is the first-ever wave of HIV epidemic in Hong Kong
- Risk behaviours and risk attributes have fueled spread among MSM
- Must remain vigilant for IDU, keeping prevalence low is the best prevention
- Need continued tracking of infections among high risk heterosexuals, ie sex workers and clients

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衛生署疾病管制局

Current HIV/AIDS Epidemiology and Control Strategy in Taiwan

Chin-Hui Yang, M.D.
Director of 3rd Division
Centers for Disease Control,
Taiwan, R.O.C.

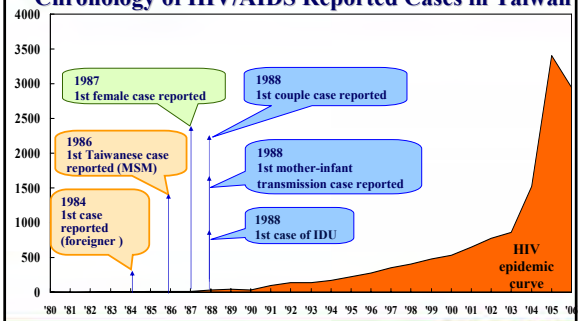
Taiwan CDC
http://www.cdc.gov.tw

In 2007

- Area: 36,006 km^2
- Population: 22,958,360
- Per Capita GNP: US$17,294
- Average Life Expectancy: 77.9 years

衛生署疾病管制局

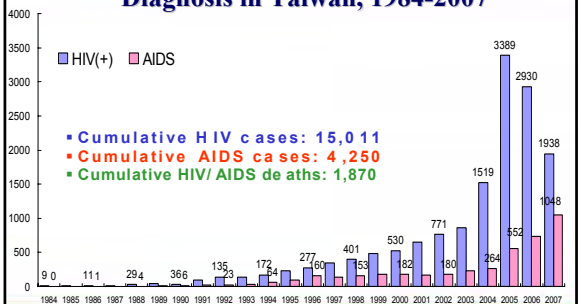
Chronology of HIV/AIDS Reported Cases in Taiwan



Taiwan CDC
http://www.cdc.gov.tw

衛生署疾病管制局

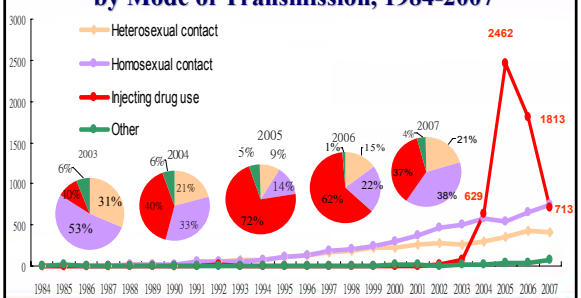
Reported Cases of HIV/AIDS by Year of Diagnosis in Taiwan, 1984-2007



Taiwan CDC
http://www.cdc.gov.tw

衛生署疾病管制局

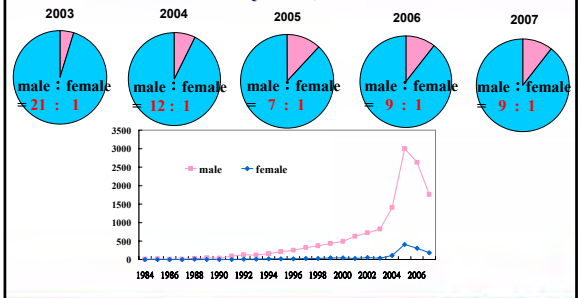
Annual Numbers of Newly Reported HIV Cases by Mode of Transmission, 1984-2007



Taiwan CDC
http://www.cdc.gov.tw

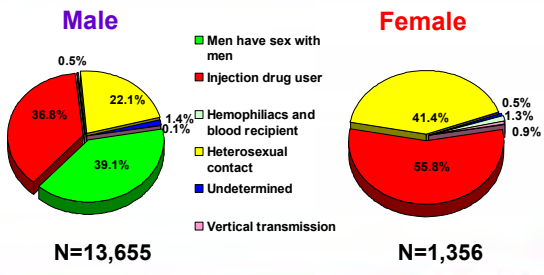
衛生署疾病管制局

Annual Numbers of Newly Reported HIV Cases by Sex, 1984-2007

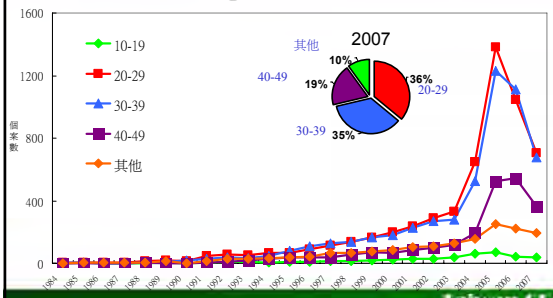


Taiwan CDC
http://www.cdc.gov.tw

Taiwanese Cases of HIV/AIDS by Exposure Category,Taiwan,1984-2007



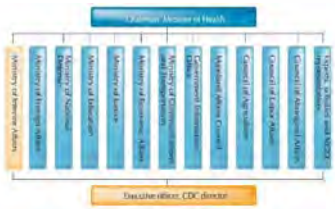
Age Distribution of Reported Cases of HIV/AIDS by Year of Diagnosis in Taiwan, 1984-2007



Political Leadership

Plan for AIDS Prevention and Treatment

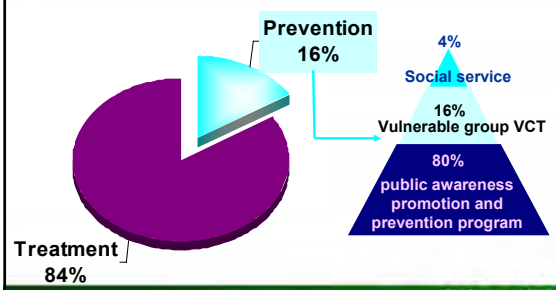
National AIDS Prevention and Control Committee



AIDS Control Programs in Taiwan

- **Prevention : Stop new infections**
  - Health education to general and targeted population
  - Safe blood transfusion
  - Harm reduction program
- **Detection : Early case finding**
  - Registered Case report System
  - Voluntary counseling and testing
  - Active and passive surveillance system
  - Lab Q. A. for HIV testing
- **Care for the infected**
  - Medical care
  - Mid-way homes
  - Hospice care

Budget Allocation of AIDS Control Plan 2007-2008



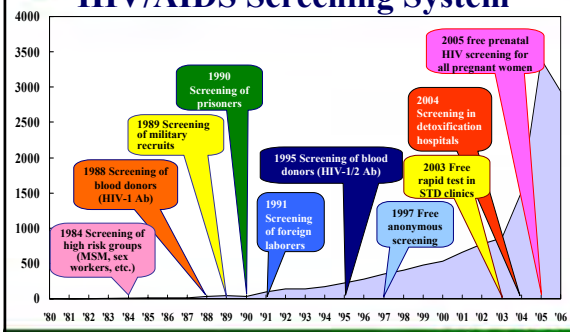
HIV/AIDS Laws and Regulations(1)

- **The AIDS Prevention and Control Act proclaimed in December 1990 serves as the legal basis for HIV/AIDS control policy. The Act stipulates :**
  - enhancing the human rights and the protection of confidentiality for HIV/AIDS cases;
  - encouraging people to accept testing by means other than blood donation;
  - asking doctors to report HIV/AIDS cases to health authorities;
  - conducting health education with sex workers and their clients;
  - making condoms available in hotels and bathhouses;
  - penalizing people who intentionally infect others;
  - providing free HAART for PLWHAs.

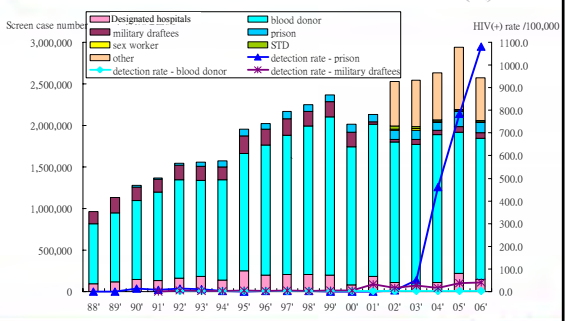
HIV/AIDS Laws and Regulations(2)

- The regulation is amended and promulgated to "HIV Infection Control and Patient Rights Protection Act" under Presidential Decree on July 11, 2007.
- The most important is to emphasizes that the dignity and the legal rights of the infected shall be protected and respected; there shall be no discrimination, no denial of education, medical care, employment, nursing home, housing or any other unfair treatment

HIV/AIDS Screening System



Annual HIV screen number and HIV(+) rate



Yang CH. International Journal of Drug Policy 19 (2008) 317–323

Prenatal HIV Screening Program for Pregnant Women in Taiwan, 2005-2007

	Number screened	New HIV-infected cases	HIV positive rate (/100,000 pregnant women)
2005	235,791	28	11.9
2006	198,034	31	15.7
2007	206,165	7	3.4
Total	639,990	66	10.3

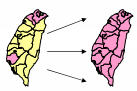
Injecting drug use is the most common route of HIV transmission and accounts for 77% of all cases.

Prenatal HIV Screening Program for Pregnant Women in Taiwan, 2005-2007

- Pregnant women found to be HIV-infected have been offered free perinatal prophylaxis which includes antiretroviral therapy during pregnancy, intra-partum intravenous zidovudine therapy and zidovudin therapy for exposed infant during the first 6 weeks of life..
- Among the 66 HIV-infected pregnant women, 19 of them decideded to terminate the pregnancies.
- Two infants among the 48 singleton births are confirmed HIV-infected and the overall transmission rate is 4.2%.

Harm Reduction Program in Taiwan

- **2004.01. Awareness & inspiration**
- **2005.01. Action plan completed**
- **2005.03. Plan approve by Premier**
- **2005.11 Start pilot projects in 1 city and 3 counties**



- **2006.02. The first case was received MMT**
- **2006.07 Expansion into a nationwide program**
- **2006.12 Annual total of reported HIV cases and IDU proportion among new cases dropped**

衛生署疾病管制局

Harm Reduction Progress in Taiwan

Needle-Syringe Program Stations

100,000 needles/wk
Reclaimed rate : 82%

Nov. 2005	Jul. 2006	Oct. 2008
76 427		1,103
Feb. 2006	Aug. 2006	Oct. 2008
6	33	78

On treatment case number 13,000/day

Substitution Treatment Program Sites

Taiwan CDC

衛生署疾病管制局

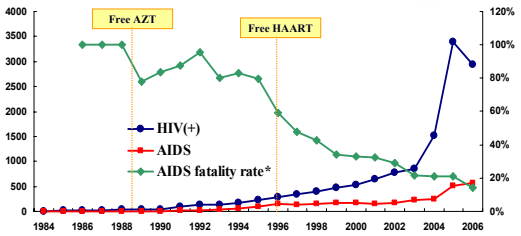
Estimative Trend of HIV/AIDS Cases of IDUs in Taiwan

Source：'Analyzing data of HIV/AIDS related database – 5 year project' studied by Taiwan CDC

衛生署疾病管制局

Program Achievements: Care and Treatment

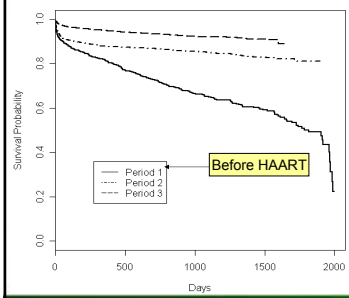
- Provide free medical care for HIV-infected persons, including free HAART in 41 designated HIV/AIDS hospitals



Taiwan CDC

衛生署疾病管制局

Trends of mortality and causes of death among HIV-infected patients in Taiwan, 1984-2005



In the pre-HAART period, 67% of the deaths were attributable to AIDS-defining conditions, compared with 70% in the early HAART period and 34% in the late HAART period (p<0.0001).

Yang CH, et al. HIV Med 2008;9:535-43.

Taiwan CDC

衛生署疾病管制局

Thanks for your attention!

Taiwan CDC

Current Status of HIV/AIDS Epidemic in South Korea

Nov. 27th, 2008

Kee, Mee-Kyung Ph.D.
Division of AIDS
Korea National Institute of Health,
Korea Centers for Disease Control & Prevention

Contents

- Status of HIV testing
- HIV seroprevalence
  - Seroprevalence of visitor to PHCs (2005)
  - Trend in Korea : 2000-2007
- Immunological status at HIV diagnosis
- Survival of individuals since HIV diagnosis

Contents

- **Status of HIV testing**
- HIV seroprevalence
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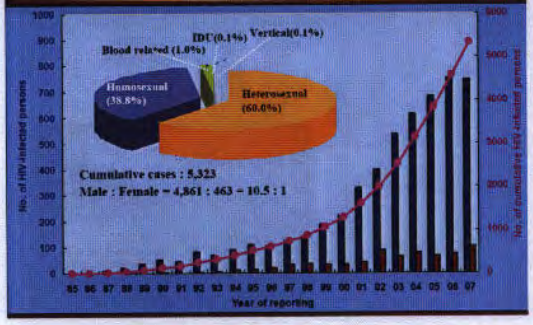
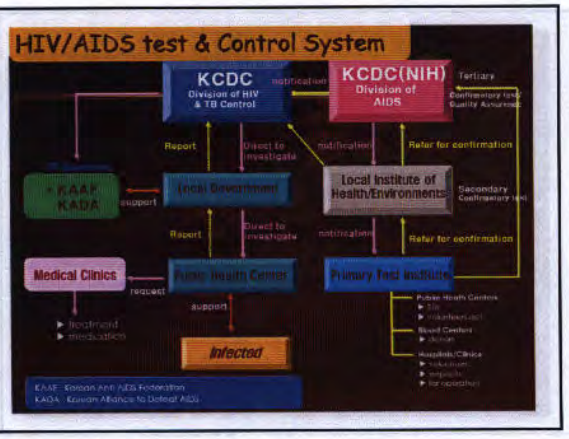
- Immunological status at HIV diagnosis
- Survival of individuals since HIV diagnosis

Trend in detecting Koreans with HIV/AIDS in Korea as of 2007



HIV/AIDS test & Control System



Status of HIV testing by primary screening institute

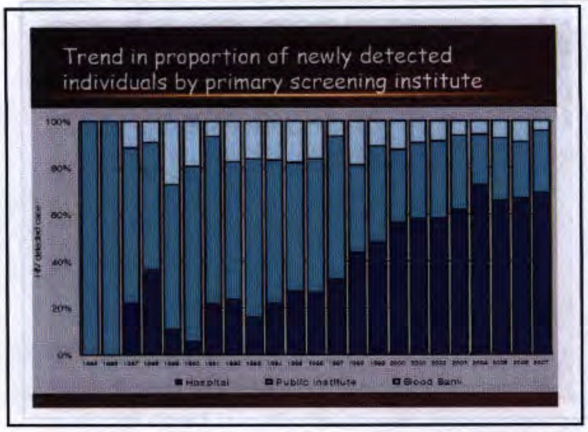
Unit : No. of Test (thousand, %)

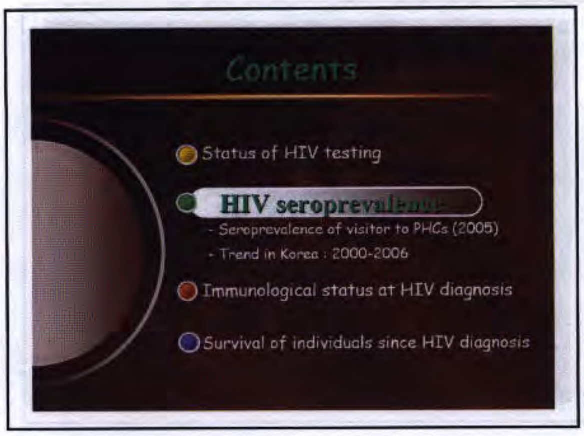
Institute	2000	2001	2002	2003	2004	2005	2006	2007
PHC (%)*	429	487	484 (9)	467 (9)	434 (8)	344 (6)	407 (6)	395 (5)
BB (%) §	2,472	2,526	2,521 (47)	2,535 (45)	2,325 (43)	2,274 (40)	2,303 (34)	2,029 (27)
Hospital (%)**	-	-	2,317 (44)	2,530 (46)	2,690 (49)	3,045 (54)	4,000 (60)	4,963 (68)
Total	2,901	3,013	5,322	5,532	5,449	5,663	6,710	7,387

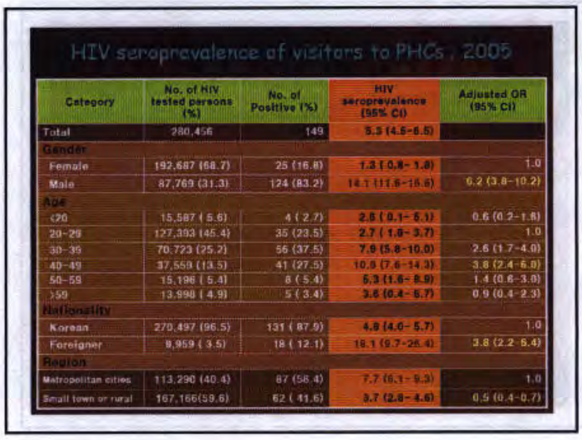
* Data of HIV test of Public Health Centers were collected by Total Health Care Information Center and Assistance Corp. PHCs in 2000, 215 PHCs in 2001, 222 PHCs in 2002, 222 PHCs in 2003, 229 PHCs in 2004, 246 PHCs in 2005, 251 PHCs in 2006, 252 PHCs in 2007.

§ Data of Blood Banks were collected by annual report of Blood Bank.

** Data of Hospitals were extracted on the base of data of Health Insurance Review & Assessment Service.







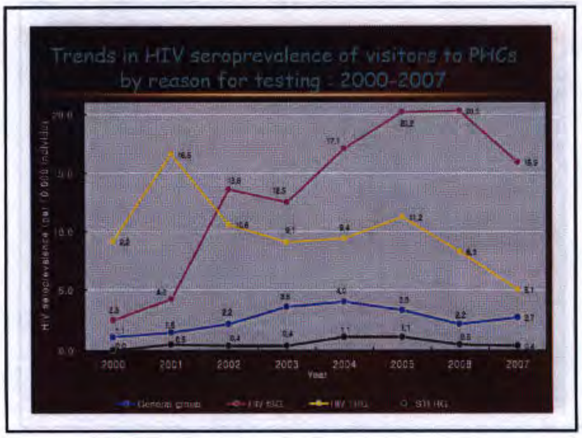
HIV seroprevalence of visitors to PHCs : 2005

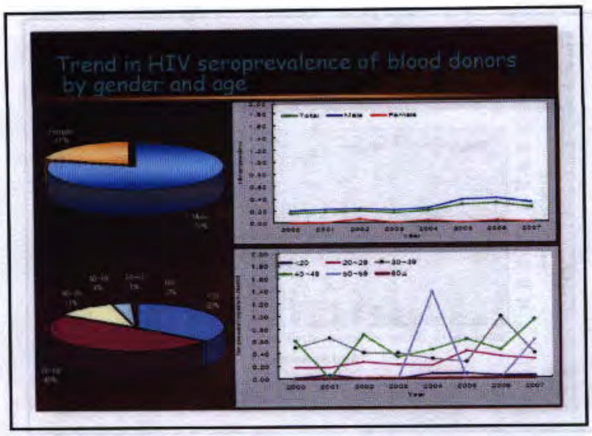
Category	No. of HIV tested persons (%)	No. of Positive (%)	HIV seroprevalence (95% CI)	Adjusted OR (95% CI)
Total	280,456	149	5.3 (4.5-6.5)	
Gender				
Female	192,687 (68.7)	25 (16.8)	1.3 (0.8- 1.8)	1.0
Male	87,769 (31.3)	124 (83.2)	14.1 (11.6-16.6)	6.2 (3.8-10.2)
Age				
<20	15,587 (5.6)	4 (2.7)	2.6 (0.1- 5.1)	0.6 (0.2-1.8)
20-29	127,393 (45.4)	35 (23.5)	2.7 (1.8- 3.7)	1.0
30-39	70,723 (25.2)	56 (37.5)	7.9 (5.8-10.0)	2.6 (1.7-4.0)
40-49	37,559 (13.5)	41 (27.5)	10.9 (7.6-14.3)	3.8 (2.4-6.0)
50-59	15,196 (5.4)	8 (5.4)	5.3 (1.6- 8.9)	1.4 (0.6-3.0)
>59	13,998 (4.9)	5 (3.4)	3.6 (0.4- 6.7)	0.9 (0.4-2.3)
Nationality				
Korean	270,497 (96.5)	131 (87.9)	4.8 (4.0- 5.7)	1.0
Foreigner	9,959 (3.5)	18 (12.1)	18.1 (9.7-26.4)	3.8 (2.2-6.4)
Region				
Metropolitan cities	113,290 (40.4)	87 (58.4)	7.7 (6.1- 9.3)	1.0
Small town or rural	167,166(59.6)	62 (41.6)	3.7 (2.8- 4.6)	0.5 (0.4-0.7)

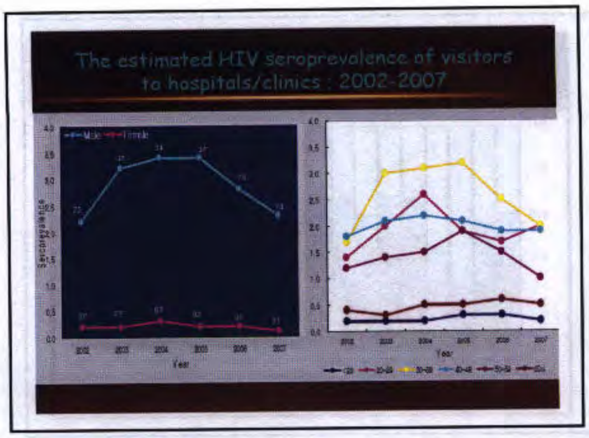
HIV seroprevalence of visitors to PHCs by reason for testing '05

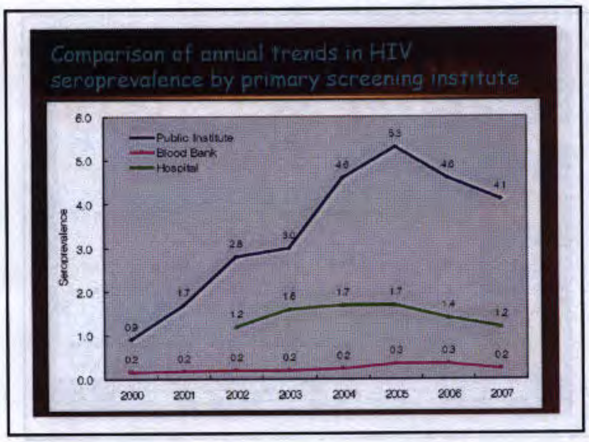
Category	No. of HIV tested persons (%)	No. of Positive (%)	HIV seroprevalence (95% CI)	Adjusted OR (95% CI)
Total	280,456	149	5.3 (4.5-6.5)	
General group	88,116 (32)	32 (21.5)	3.6 (2.4-4.9)	1.0
Health checkup	21,598	9	4.2 (1.4-6.9)	1.0
Medical Certificate	41,358	19	4.6 (2.5-6.7)	1.0 (0.4-2.3)
Prenatal checkup	17,159	2	1.2 (0.0-2.8)	1.2 (0.2-5.9)
Others	8,001	2	2.5 (0.0-6.0)	0.8 (0.1-1.4)
HIV ISG	[illegible]	86 (57.7)	21.8 (17.2-26.4)	[illegible]
[illegible]	[illegible]	[illegible]	19.6 (13.4-25.9)	[illegible]
[illegible]	[illegible]	[illegible]	23.6 (17.1-30.6)	[illegible]
HIV TRG	8,144 (3)	10 (6.7)	12.3 (4.7-15.9)	2.6 (1.3-5.4)
TB patient	6,822	3	4.4 (0.0- 9.4)	0.9 (0.2-3.4)
Prisoner	1,295	2	15.4 (0.0-36.8)	2.5 (0.5-11.6)
HIV positive related	27	5	1852 (387-3317)	420 (110-999)
STI risk group	[illegible]	21 (14.1)	1.5 (0.8-2.1)	1.1(0.6-2.0)
CSWs	[illegible]	0	0.0	-
[illegible]	[illegible]	12	1.4 (0.6-2.2)	[illegible]
[illegible]	[illegible]	2	0.7 (0.0-1.7)	[illegible]
[illegible]	[illegible]	0	0.0	-
Others	[illegible]	7	2.5 (0.7-4.4)	[illegible]

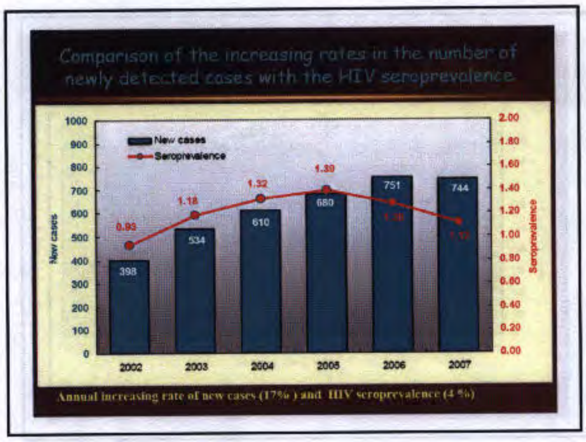
HIV ISG: suspected group of HIV infection, HIV TRG: HIV test recommend group, STI: sexually transmitted infection CSWs: Commercial sex workers CI: Confidence interval, OR: Odds Ratio

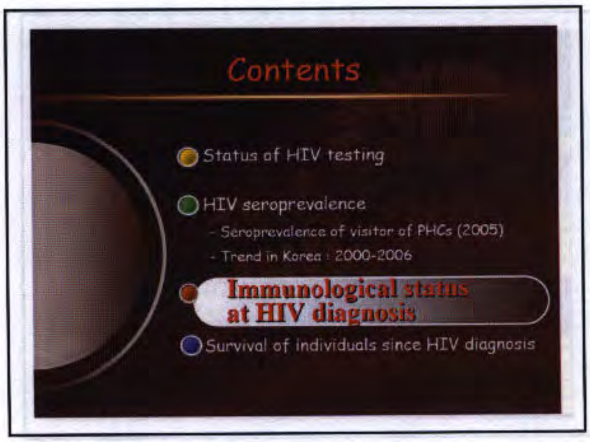


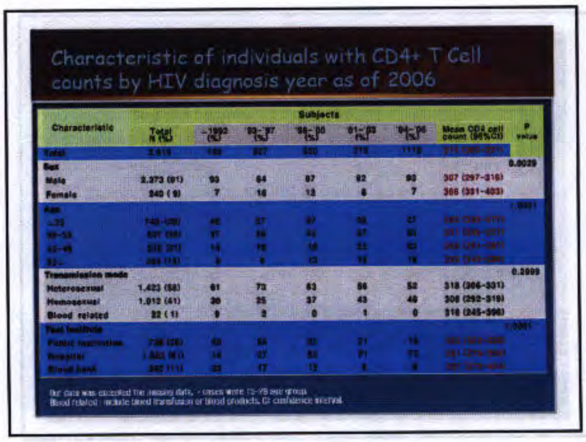

Trend in HIV seroprevalence of blood donors by gender and age
Total
Male
Female


The estimated HIV seroprevalence of visitors to hospitals/clinics : 2002-2007
Male
Female
Seroprevalence
Year

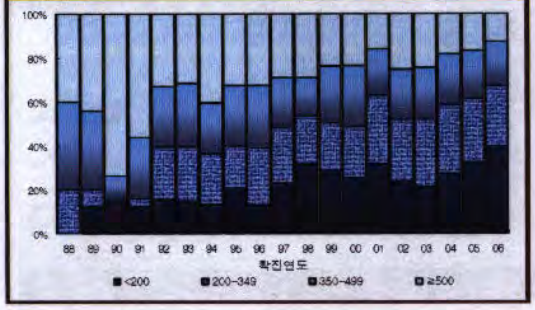

Comparison of annual trends in HIV seroprevalence by primary screening institute
Public Institute
Blood Bank
Hospital
Seroprevalence
2000
2001
2002
2003
2004
2005
2006
2007


Comparison of the increasing rates in the number of newly detected cases with the HIV seroprevalence
New cases
Seroprevalence
398
534
610
680
751
744
0.93
1.18
1.32
1.39
2002
2003
2004
2005
2006
2007
Annual increasing rate of new cases (17%) and HIV seroprevalence (4%)

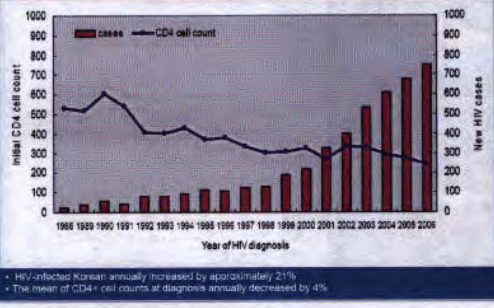

Contents
Status of HIV testing
HIV seroprevalence
- Seroprevalence of visitor of PHCs (2005)
- Trend in Korea : 2000-2006
Immunological status at HIV diagnosis
Survival of individuals since HIV diagnosis


Characteristic of individuals with CD4+ T Cell counts by HIV diagnosis year as of 2006
Subjects
Characteristic
Mean CD4 cell count (95%CI)
P value
Sex
Male
2,273 (91)
307 (297-316)
Female
240 (9)
0.0029
Heterosexual
1,423 (58)
318 (306-331)
Homosexual
1,012 (41)
308 (292-319)
Blood related
22 (1)
0.2999

Trend in proportion of the level of CD4+ cell counts at HIV diagnosis

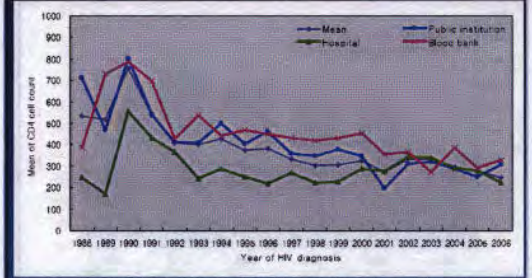


Trend in the number of newly detected individuals and the mean of CD4+ cell counts at HIV diagnosis as of 2006



- HIV-infected Korean annually increased by approximately 21%
- The mean of CD4+ cell counts at diagnosis annually decreased by 4%

Trend in mean of CD4+ cell counts at HIV diagnosis by test institute over a 19-year Period



Annual decrease of initial CD4+ cell count by test institute : 12 cells/mm3 for the public institution, 17 cells/mm3 for the blood bank

Estimates of the effects of HIV diagnosis year and of the possible confounders on CD4+ cell count, estimated by linear regression models

Covariates	Regression coefficient	95% CI	p-value	Adjusted*	95% CI	p-value
Year of diagnosis[a]	-12.7	(-21.8 to -8.9)	<.0001	-20.3	(-26.6 to -14.0)	<.0001
Age at CD4 test[b]	-33.1	(-47.0 to -19.3)	<.0001	-23.5	(-39.6 to -7.4)	<.0001
Gender						
Male[c]	-63.1	(-76.8 to -49.4)	0.0003	-22.7	(-66.6 to 19.2)	0.0028
Test institute						
Hospital	-80.5	(-110.4 to -50.5)	<.0001	-33.9	(-61.5 to 13.7)	0.0203
Blood Bank	61.4	(52.5 to 70.2)	0.0084	54.3	(32.4 to 76.3)	0.0196
Transmission mode[d]						
Homosexual	-7.3	(-43.1 to 28.5)	0.2789	-6.0	(-55.9 to 43.9)	0.9167
Blood related	-54.2	(-146.7 to 38.4)	0.9138	-8.1	(-113.8 to 97.6)	0.1425

*Adjusted for the variables in the table. [a]For 1 year increment from 1985 to 2005. [b]For 10 years increment from 15 years of age. Reference group : [c]Female, [d]Public institute, Heterosexual group. CI: confidence interval, Blood related : include blood transfusion and blood product

Contents

- Status of HIV testing
- HIV seroprevalence
  - Seroprevalence of visitor of PHCs (2005)
  - Trend in Korea : 2000-2006
- Immunological status at HIV diagnosis
- **Survival of individuals since HIV diagnosis**

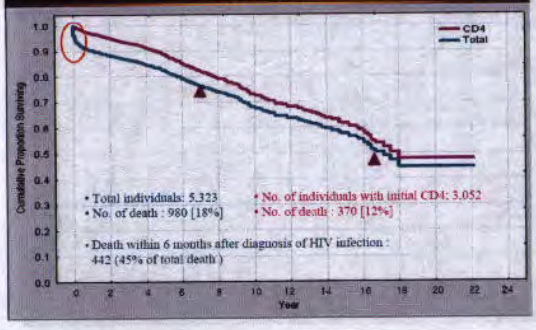
Characteristics of study population : 1985-2007

Categories	All (%)	No. of death	Crude mortality	No. of death within 6 months (%)	Person-year	Mortality density (per 1000 person-years)
Total	**5,323**	**980**	**18 %**	**442 (45)**	**21,439**	**45.7**
Gender						
Male	4,857 (91)	901	19 %	413 (46)	19,082	47.2
Female	466 (9)	79	17 %	29 (37)	2,357	33.5
Age						
~ 29	1,363 (26)	148	11 %	25 (17)	7,153	20.7
30-39	1,758 (33)	283	16 %	102 (36)	7,506	37.7
40-49	1,220 (23)	268	22 %	136 (51)	4,081	65.7
50~	982 (18)	281	29 %	179 (64)	2,699	104.1
Test institute						
Public institute	1,394 (26)	296	21 %	51 (14)	8,031	36.8
Hospital	3,448 (65)	644	19 %	390 (58)	10,632	60.6
Blood Bank	481 (9)	40	8 %	1 (9)	2,776	14.4
Year						
1985-1990	124 (2)	86	69 %	5 (6)	1,403	61.3
1991-1996	497 (10)	215	43 %	35 (16)	4,878	44.1
1997-2002	1,388 (26)	339	24 %	146 (43)	8,202	41.3
2003-2007	3,314 (62)	340	10 %	256 (75)	6,956	48.9

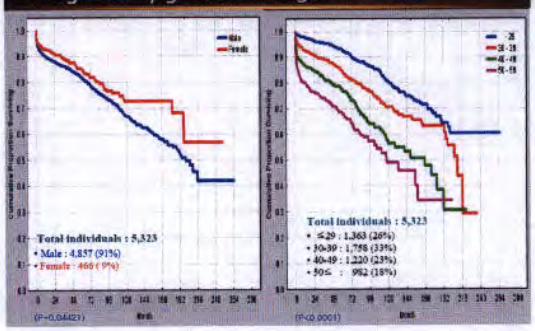
Classification by death cause of 980 HIV-infected individuals in Korea

Death cause	Frequency	Percentage
AIDS	683	69.7
Heart disease related	24	2.5
Liver disease related	14	1.4
Brain disease related	11	1.1
Lung disease related	13	1.3
Other disease related	40	4.1
Suicide/Accident	14	1.4
Unknown cause	181	18.5

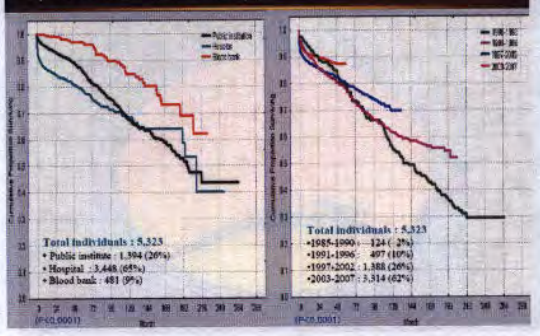
Survival of individuals since HIV diagnosis : 1985-2007



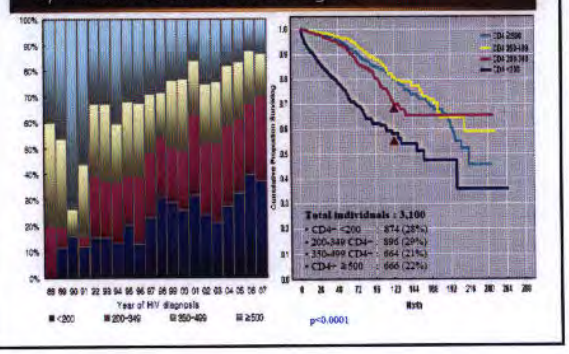
Survival of individuals since HIV diagnosis by gender and age : '85-'07



Survival of individuals since HIV diagnosis by test institute and year



Trend in proportion of CD4+ cell counts & survival by the level of CD4+ at HIV diagnosis



Estimates of survival after 10 years since HIV diagnosis and of the possible confounders on survival, estimated by linear regression models

Variable	Survival after 10 years		Multiple regression	
	Survival Distribution (Lower CL - Upper CL)		P value	Hazard Ratio
Gender				
Male	67 % (64 - 69 %)		0.0052	1.394
Female	73 % (68 - 78 %)			1.000
Age				
≤ 29	81 % (77 - 84 %)			1.000
30-39	71 % (68 - 74 %)		<.0001	1.873
40-49	66 % (63 - 69 %)		<.0001	2.508
50≤	56 % (51 - 61 %)		<.0001	3.181
Test institute				
Public institute	68 % (64 - 71 %)			1.000
Hospital	68 % (64 - 72 %)		<.0001	1.190
Blood Bank	85 % (78 - 89 %)		0.0057	0.731
Year of diagnosis				
1985-1990	58 % (48 - 66 %)		<.0001	2.668
1991-1996	62 % (57 - 66 %)		<.0001	2.214
1997-2002	70 % (68 - 73 %)		<.0001	1.705
2003-2007				1.000
Level of initial CD4+				
< 200	58 % (51 - 64 %)		<.0001	1.000
200-349	70 % (63 - 76 %)		0.1199	1.239
350-499	80 % (74 - 84 %)		0.1613	0.825
500	80 % (75 - 84 %)			1.000

Conclusion & Suggestion

- These immunological results suggest diagnoses in hospitals were made in late stages after routine tests were gradually changed to voluntary tests, and it is imperative to develop more efficient programs for early HIV diagnosis to prevent transmission in Korea.
- Survival of HIV-infected Korean significantly increased since the beginning of treatment in 1990. These survival results suggest that the time at HIV diagnosis is important to increase survival time, because the survival time is low in the case of patients to be diagnosed on the late phase of HIV infection.
- These results of HIV seroprevalence present scientific knowledge to promote voluntary testing to improve **National HIV/AIDS Prevention Program.**

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- Dr. Sung Soon Kim
- Dr. Jin Hee Lee
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- Dr. Joo-Shil Lee

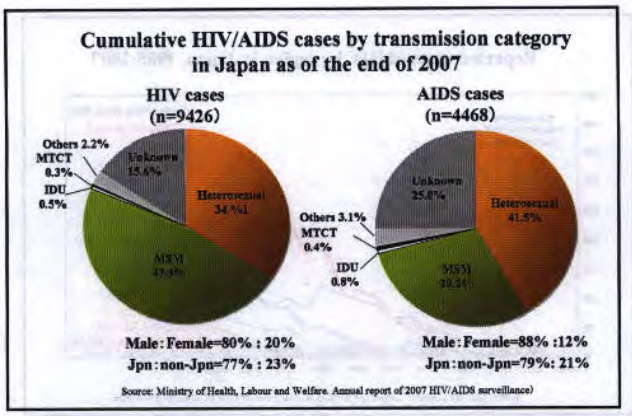
Division of HIV & TB control, KCDC
- Dr. Jeong Gu Nam
- Mrs. Jiyoung Whang

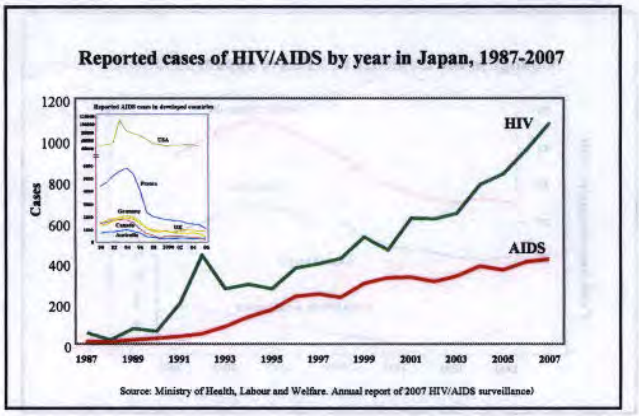
Health Insurance Review & Assessment Service
- Dr. Hak-Joon Ahn

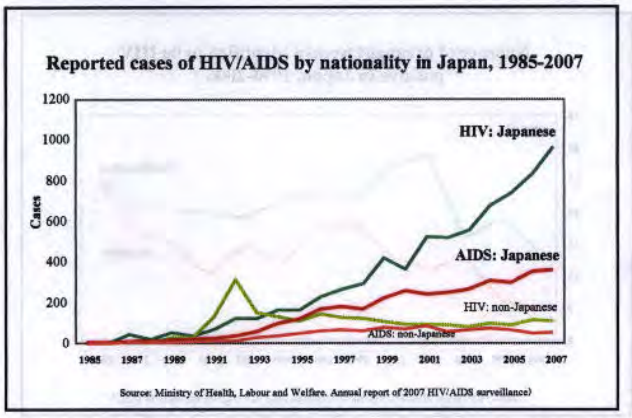
DATA Source
- 252 Public Health Centers
- 17 Local Institution of Health/Environments
- Health Insurance Review & Assessment Service
- Blood Bank Centers
- Division of HIV & TB control, KCDC
- Division of AIDS, KCDC

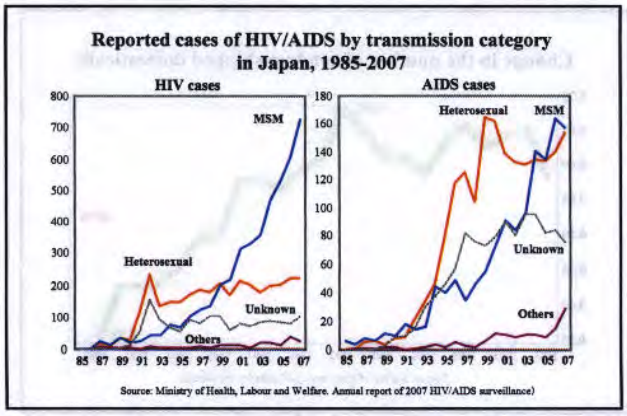
THANK YOU

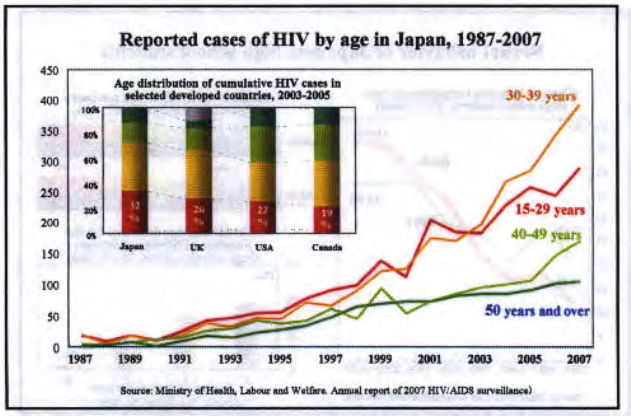

Human Immuno-deficiency Virus (HIV)
International Symposium of 22nd Annual Meeting of the Japan Society for AIDS Research, Nov.27, 2008, Osaka
HIV/AIDS Epidemic in Japan
Masahiro Kihara, MD, PhD
Dept. of Global Health and Socio-epidemiology
Kyoto University School of Public Health
UNAIDS Collaborating Centre
Acquired Immunodeficiency Syndromes (AIDS)


Cumulative HIV/AIDS cases by transmission category in Japan as of the end of 2007
HIV cases (n=9426)
AIDS cases (n=4468)
Others 2.2%
MTCT 0.3%
IDU 0.5%
Unknown 15.6%
Heterosexual 34.%1
MSM 47.3%
Others 3.1%
MTCT 0.4%
IDU 0.8%
Unknown 25.8%
Heterosexual 41.5%
MSM 28.3%
Male : Female=80% : 20%
Jpn : non-Jpn=77% : 23%
Male : Female=88% :12%
Jpn : non-Jpn=79%: 21%
Source: Ministry of Health, Labour and Welfare. Annual report of 2007 HIV/AIDS surveillance)

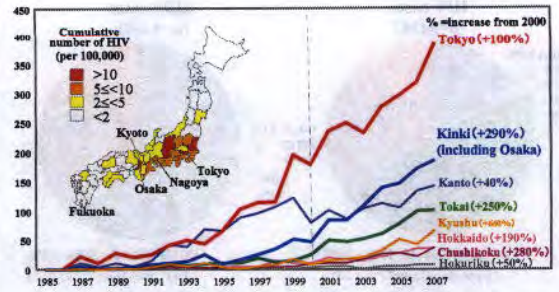

Reported cases of HIV/AIDS by year in Japan, 1987-2007
Cases
HIV
AIDS
1200
1000
800
600
400
200
0
1987 1989 1991 1993 1995 1997 1999 2001 2003 2005 2007
Source: Ministry of Health, Labour and Welfare. Annual report of 2007 HIV/AIDS surveillance)


Reported cases of HIV/AIDS by nationality in Japan, 1985-2007
Cases
HIV: Japanese
AIDS: Japanese
HIV: non-Japanese
AIDS: non-Japanese
1200
1000
800
600
400
200
0
1985 1987 1989 1991 1993 1995 1997 1999 2001 2003 2005 2007
Source: Ministry of Health, Labour and Welfare. Annual report of 2007 HIV/AIDS surveillance)


Reported cases of HIV/AIDS by transmission category in Japan, 1985-2007
HIV cases
AIDS cases
MSM
Heterosexual
Unknown
Others
800
700
600
500
400
300
200
100
0
180
160
140
120
100
80
60
40
20
0
85 87 89 91 93 95 97 99 01 03 05 07
Source: Ministry of Health, Labour and Welfare. Annual report of 2007 HIV/AIDS surveillance)

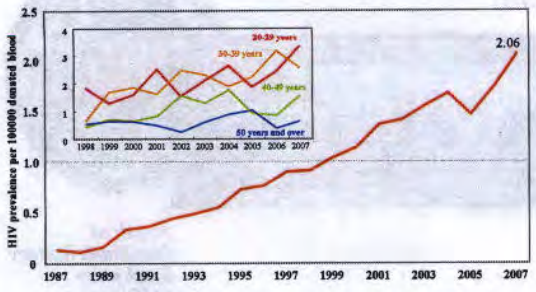

Reported cases of HIV by age in Japan, 1987-2007
Age distribution of cumulative HIV cases in selected developed countries, 2003-2005
Japan
UK
USA
Canada
30-39 years
15-29 years
40-49 years
50 years and over
450
400
350
300
250
200
150
100
50
0
1987 1989 1991 1993 1995 1997 1999 2001 2003 2005 2007
Source: Ministry of Health, Labour and Welfare. Annual report of 2007 HIV/AIDS surveillance)

Reported cases of HIV by region in Japan, 1985-2007



Source: Ministry of Health, Labour and Welfare. Annual report of 2007 HIV/AIDS surveillance)

HIV prevalence in donated blood in Japan, 1987-2007

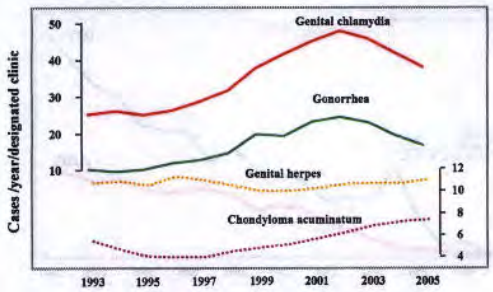


Source: Ministry of Health, Labour and Welfare. Annual report of 2007 HIV/AIDS surveillance)

Number of pregnant women identified to be HIV positive in Japan, 1994-2006

Source: 2007 report of the Study Group on Mother-to-Child HIV infection sponsored by MHLW

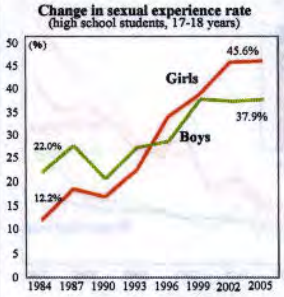
Change in the incidence of STDs in Japan, 1993-2005



Source: Website of Infectious Diseases Surveillance Centre, Japan

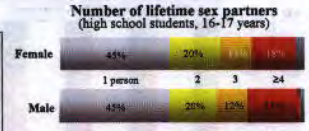
Sexual behavior of Japanese high school students

Change in sexual experience rate
(high school students, 17-18 years)

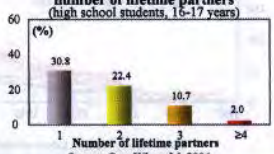


Source: Tokyo Society for K-12/disabled Sex Education

Number of lifetime sex partners
(high school students, 16-17 years)

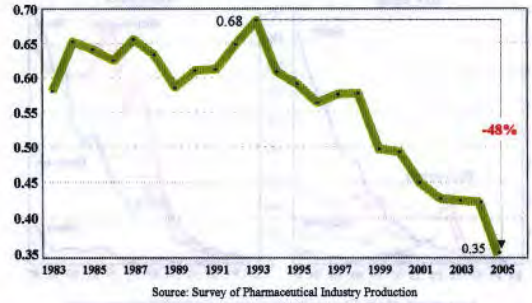


Consistent condom use by the number of lifetime partners
(high school students, 16-17 years)



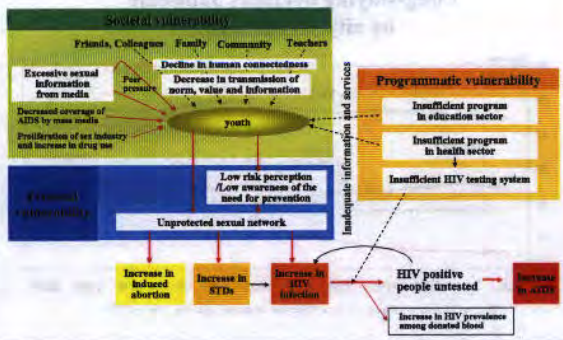
Source: Ono-Kihara M, 2006

Change in the number of condom shipped domestically

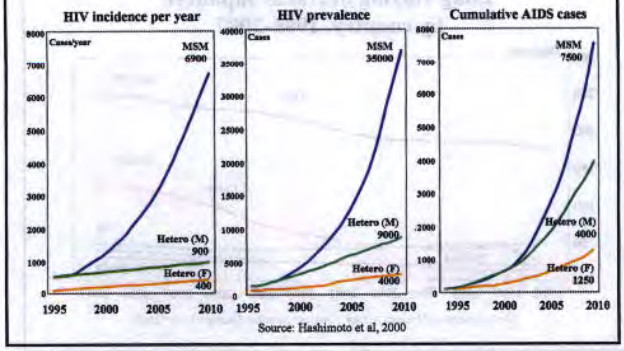


Source: Survey of Pharmaceutical Industry Production

Vulnerability of Japan to HIV epidemic



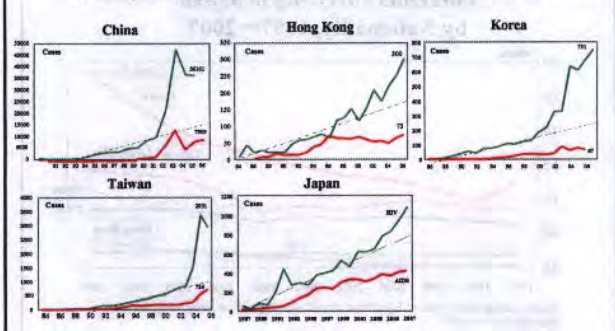
Estimation and projection of HIV/AIDS in Japan



Source: Hashimoto et al, 2000

Global distribution of people living with HIV as of the end of 2007

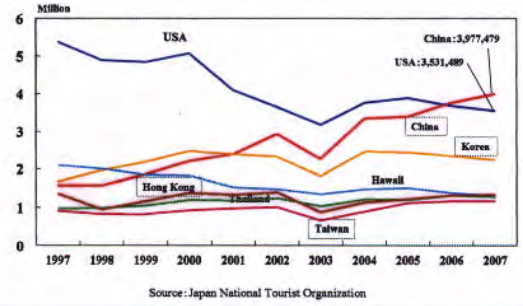
Change in reported cases of HIV/AIDS in East Asia



Reported cases of HIV/AIDS in East Asia in 2006

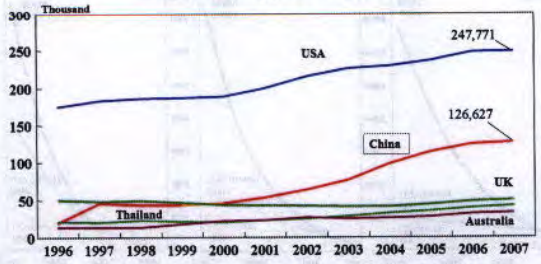
	Year of the first case	Reported HIV/AIDS cases in 2006	Reported HIV/AIDS cases per 100000 population in 2006	Ratio
China	1985	44,670	3.4	3.7
Hong Kong	1984	373	5.3	5.7
Korea	1985	751	1.5	1.7
Taiwan	1984	3,675	16.0	17.2
Japan	1985	1,191	0.9	1

Japanese overseas travelers by destination, 1997-2007



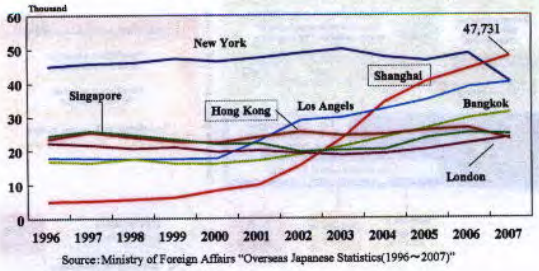
Source: Japan National Tourist Organization

Long-staying overseas Japanese by country, 1996-2007



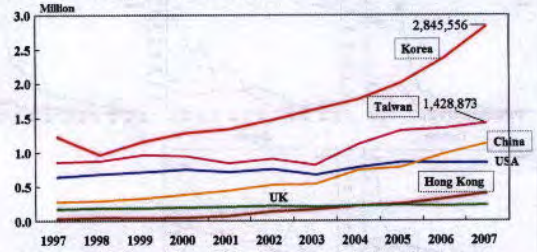
Source: Ministry of Foreign Affairs "Overseas Japanese Statistics(1996～2007)"

Long-staying overseas Japanese by city, 1996～2007



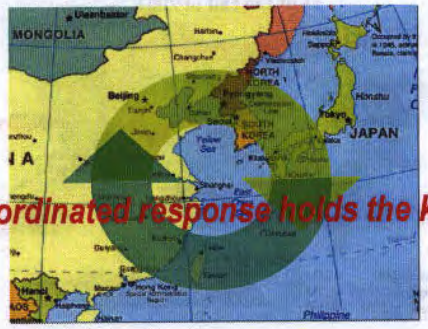
Source: Ministry of Foreign Affairs "Overseas Japanese Statistics(1996～2007)"

Foreigners arriving in Japan by Nationality, 1997～2007



Source: Immigration Bureau of Japan "Statistics of in-coming and out-going foreigners and Japanese(2003～2007)"

East Asia



Global Health Seminar "From Okinawa to Toyako" in Kyoto
Global AIDS Strategy: entering into a new stage of securing true "Human Security"

May 26, 2008

Scope and recent activities of the UNAIDS Collaborating Centre on Socio-epidemiological HIV Research, Kyoto University (kyoto-UCC)

Masako Ono-Kihara, Ph.D.

Director
UNAIDS Collaborating Centre on Socio-epidemiological HIV Research
Associate Professor
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Ecological model of human behavior

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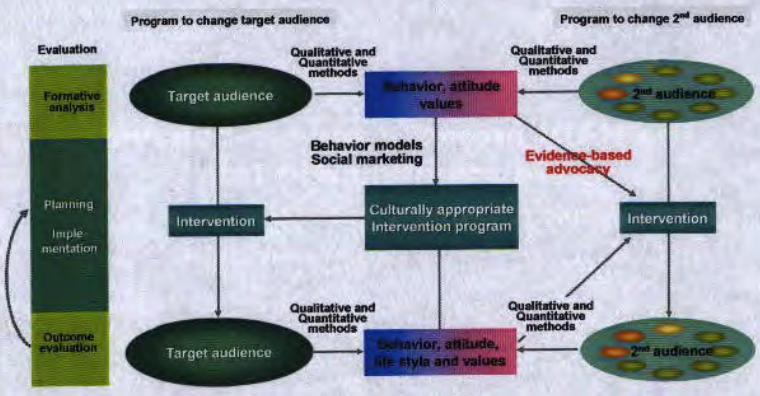
Socio-epidemiological approach



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Main fields of Kyoto-UCC activities

Purpose of collaboration

To prompt through the socio-epidemiological approach culturally appropriate and effective HIV prevention among various vulnerable populations in developing countries, East Asia and Japan, with particular focus on youth.

1. Research
2. Support for policy and program formation
3. Training
4. Information communication
5. Networking

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1 Research (1)

Ongoing International research activities

1. Studies on the HIV prevalence, behavior and prevention among injecting drug users in Iran (HADI projects, in cooperation with the MOH, NGO, and UNODC) 
2. A qualitative study on oral health care problems of people living with HIV in Iran 
3. Behavioral and intervention studies among university students in Zhejiang province of China (in cooperation with local Center for Disease Control and Prevention) 
4. A study on sexual behaviors among young people in Burkina Faso (in cooperation with MOH and researchers of a local university) 
5. A study on HIV risk behaviors among Rikisha pullers in Bangladesh (in cooperation with researchers of a local university) 
6. Studies on HIV risk behaviors among hill tribes and Burmese immigrants in northern Thai (in cooperation with local NGOs and health bureaus) 

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1 Research (2)

Ongoing domestic research activities

1. Studies on sexual behavior and prevention among young people (WYSH projects, funded by MOH and MEXT) 
2. Studies on sexual behavior and prevention among young Brazilian immigrants (Latin Project, funded by MOH) 
3. Behavioral and intervention studies among people living with HIV (funded by MOH) 
4. Studies on integrated analysis of HIV-related information (including mathematical modeling and policy evaluation, funded by MOH) 
5. A study on the effectiveness mass media campaign on the HIV/STD-related knowledge and HIV/STD testing behavior among metropolitan residents (funded by MOH) 

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2 Support for policy and program formation

International activities

1. Results of the HADI project led to nationwide reinforced and comprehensive HIV/STD prevention and care programs in prison in Iran
2. Contributed to the establishment of national bio-behavioral surveillance program for IDU in Iran

Domestic activities

3. Contributed to the development of new National AIDS Prevention Guideline and created HIV prevention manuals and training courses for teachers and health practitioners
4. Contributing to the development of a national evaluation protocol for HIV prevention programs
5. Created a new evidence-based model of HIV prevention intervention for youth (WYSH model) that has been adopted as a recommended model of MOH and MEXT

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The HADI projects and bio-behavioral surveillance in Iran

- from research to national projects -

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Results of the HADI 1 project

The first bio-behavioral surveys among injecting drug users (IDUs) in Iran

Clinic-based study in 2003-4 (n=611) (Zamani S et al. AIDS 2005, 19: 709-16)	Community-based study in 2004 (n=213) (Zamani S et al. JAIDS 2006, 42: 342-6)	
HIV prevalence=15.2%	HIV prevalence=23.2%	→ Evidence for HIV epidemic
Odds ratio of the history of shared injection within prison =12.4 (95%CI, 2.9-52.0)	Odds ratio of the history of shared injection within prison =2.45 (95%CI, 1.0-9.1)	→ Evidence for HIV Infection within prison
Odds ratio of the unprotected sexual Intercourse =3.42 (95%CI,1.3-9.4)		→ Evidence for sexual HIV Infection

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From research to national projects in Iran

HADI 1 project

HIV epidemic among IDUs
Infection inside prison
Sexual infection

- Reinforced and comprehensive National HIV/STI prevention programs in prison (2005-)
  - Evaluation study for methadone maintenance therapy
    *Funded by and in cooperation with UNODC, 2007-2008
- Studies on the effectiveness of outreach needle syringe exchange program (HADI 2 projects, 2005, 2006)
  - Maintenance of NSEP
- National bio-behavioral Surveillance (2005-)
  - (2005) Design, Protocol, Manual
  - (2006) Training course (sampling, interview, blood collection)
  - (2007) 1st round practice (11 provinces)
  - (2008) Data analysis, statistical analysis, test validation
  - *Entrusted by Global Fund and MOH.
- Bio-behavioral Study using respondent-driven sampling (HADI 3 project, 2008)

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The WYSH projects

(Well-being of Youth in Social Happiness)

- from research to national projects -

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Contextual understanding of young people in Japan

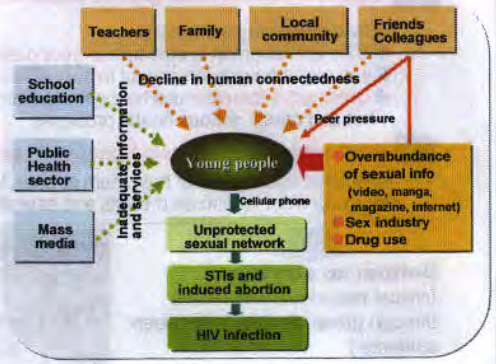
Formative research

Quantitative studies
for more than 240,000 young people, parents and teachers since 1999

Qualitative studies
for several hundreds young people since 1999

Contextual Under-standing

Connectedness model



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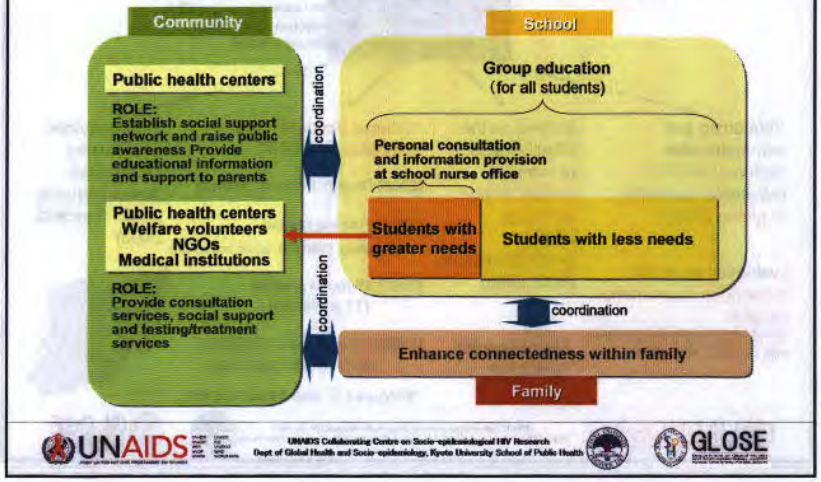
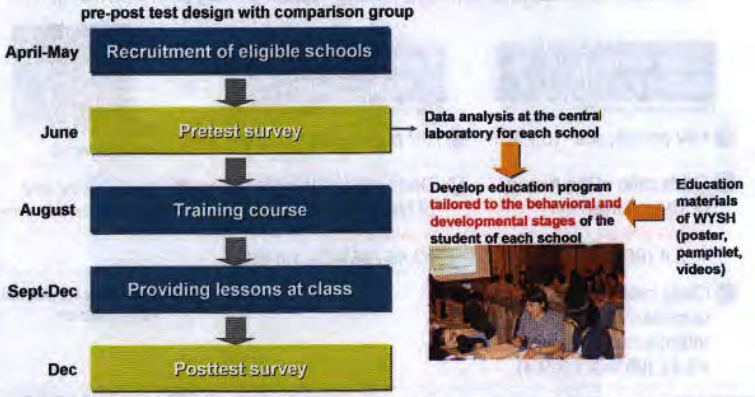
Social collaboration model of the WYSH project



Design and schedule of school-based education program

pre-post test design with comparison group



Messages of the WYSH project and communication strategy

1 You are at risk (risk personalization)

Provide following information
- STIs and abortion is epidemic in your prefecture
- you might have been caught in sexual network
- Chlamydial infection can be asymptomatic but can cause serious health problems

2 Well-round human relationship is precious

- Provide information to help them release from peer pressure for sex
- Group work to discuss dreams and aspiration

Bottom up strategy
(critical consciousness raising through group discussion between students)

Education and communication materials of the WYSH project

Effectiveness of the WYSH education program

	Absolute changes	
	High school students	Middle school students
Knowledge (Knowledge of STIs, HIV and induced abortion in one's own prefecture)	↑↑↑↑ +40%	↑↑↑↑ +40%
Attitude (1) (Awareness of the risk for STI infection)	↑ +10%	↑↑ +20%
Attitude (2) (Accepting of high school students having sex)	↓ -5%	↓ -10%
Behavior (1) (Consistent condom use among sexually active students)	↑ +10%	↑↑ +20%
Behavior (2) (Proportion of sexually active students)	→	→

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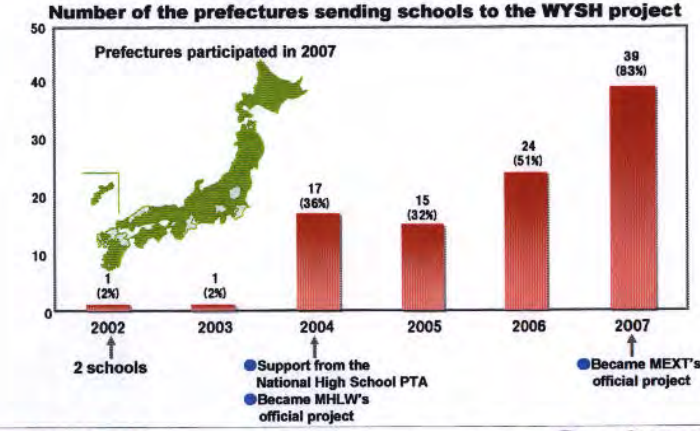
Progress of the WYSH project

Number of the prefectures sending schools to the WYSH project



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