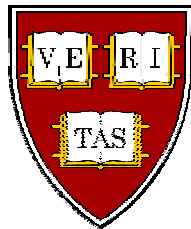


Drug and Health Care Delivery: *A perspective from Cambodia and Ethiopia*

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Addressing the Threat of Drug Resistant TB
I.O.M Forum



Cambodian Health Committee (CHC)

Using successful
community-based TB
program of local NGO
and research
infrastructure
associated with
Harvard
to provide universal
access to MDR care in
Cambodia

Leveraging CHC's
expertise to Ethiopia
and Vietnam

Delivery and Discovery

Cambodian Health Committee TB and AIDS Programs

CHC Rural TB Program: June 1994-March 2008

Svay Rieng and Kampot Provinces:

>14,000 Cured JAMA 2004 Sok et al.

Covering population of **1 million**

Scale-up of community DOT approach to entire country of **15 million**

CHC obtained GLC status obtained for Cambodia, universal access for MDR: **60 patients currently on therapy**

CHC Rural AIDS Program: July 2004-March 2008

Svay Rieng (1311/754) and Kampot Provinces (1104/641):

2568 in follow-up (147 children)

1406 adults and 81 children on ARVs

CHC Urban Centers of Excellence for TB and AIDS care: Phnom Penh

- Pulmonary Ward rehabilitation of largest public hospital in Phnom Penh (**723 adults with TB and other respiratory diagnoses on ARV in active follow-up; 500 children**)

- Pediatric Ward rehabilitation underway: **pediatric AIDS cohort**

- **Maddox Chivan Children's Center** for AIDS infected and Affected Children (opened Feb 2006): **367 children** (~50% HIV+) all orphaned by at least one parent





In 1994, the Cambodian Health Committee (CHC) developed a novel community-based approach to TB and later to AIDS treatment

- Svay Rieng Province is one of the poorest of Cambodia's 10 provinces (aver. yearly income for family of 9 approx \$220) and
- In 1994, the highest prevalence of TB (700/100,000)
- In 1994, compliance with TB meds in Svay Rieng was estimated at 30%



Svay Rieng, 1996, a CHC TB patient, a rural farmer, who achieved cure and his family

CHC PHILOSOPHY:

Everyone wants to be well and their family to be well and **given access to medicines and the proper support** can complete a long and difficult therapy towards that goal.

CHC Approach beginning in 1994

- Pretreatment patient education
- Identification of a patient supporter
- The signing of a TB treatment contract by patient, patient supporter and health worker
- Provision of Food (throughout treatment); pioneered with WFP
- Linkage of a microfinance project including village banks and village health agents
- Working closely with the NTP to provide training and sustainability: now methodology part of NTP program
- Home DOT in areas of Svay Rieng
- Integration of TB and AIDS services
- Community DOTS piloted to 1 million people in 2006-2007 in Svay Rieng and Kompot Provinces: cure rate 95% and new

TB in Cambodia

(WPRO 2008)

- Incidence of all forms= 500/100,000
- Smear (+)= 220/100,000
- Prevalence all forms= 665/100,000
- Mortality rate = 92/100,000
- MDR ~1.6% among new TB cases, among naïve co-infected TB/HIV ~2%

TB Case Detection and Cure

Cambodia as a whole

- Detection rate 65.4%
- Cure rate ~ 85%

CHC Community DOTS

- New case detection rate ~ 75% (in 2 catchment areas (2 provinces >1 million))
- Cure rate ~ 95%
- Being scaled up to entire country by NTP

TB and HIV

HIV+ among new TB patients: 10%(NTP 2007)

TB among HIV/AIDS patients: 15% (NTP 2007)

2004-2008:

- In CHC ART clinic in Svay Rieng
 - Total HIV+ patients =1,404
 - 343 also TB diagnosed ~24%
- In CHC ART clinic in Kampong Trach (Kampot)
 - Total HIV+ patients =1,206
 - 222 also TB diagnosed ~24%

MDR-TB in Cambodia

- NTP recent survey: ~ 1.6% among new cases TB diagnosed were MDR. Among relapsed & treatment failure ~3%.
- Naïve co-infected TB/HIV ~2% MDR-TB (CHC's CAMELIA Study)

CHC has been treating MDR with HOME DOT since 1999



Sok Thim examines a MDR TB patient being treated in his home by CHC in Svay Rieng in 2001

TB and HIV: linking delivery and discovery

The CAMELIA

CHC received CIPRA (Comprehensive International Program for Research on AIDS) grant from NIH "Building a TB and HIV-1 clinical and research network in Cambodia" and launched CAMELIA-CAMBodian Early vs Late Introduction of Antiretrovirals STUDY (in TB pts with AIDS & <200 CD4)

Supported by NIH and ANRS: 5 clinical sites: Svay Rieng & Kampot Provinces & Phnom Penh & Siem Riep: 660 patients





Linking Delivery and Discovery and Access to MDR Rx

Since we were going to perform DST on all 660 CAMELIA patients, we expected to find ~30 MDR & thus made the first application to the GLC from Cambodia

The 1st CAMELIA MDR patient shown a year into her therapy in July 2008:

35 yo with MDR on treatment for 12 mos

*Now Culture negative
CD4 now 195 (was 45 at initiation)*

6 yo daughter

CHC filling the gap of drugs and expertise To SCALE UP TO UNIVERSAL ACCESS FOR MDR TREATMENT in CAMBODIA

April 2006 CHC applied to GLC for 30 CAMELIA patients

July 2006 approved & drugs received in Nov 2006

June 2007 CHC applied to GLC for MDR expansion project for Cambodia for 100 patients and works in partnership with Cambodian NTP

Sept 2007 approved, drugs ordered with UNITAID sponsorship Nov 2007, arrived in May 2008

While waiting, 38 patients initiated on drugs purchased using CHC privately raised funds and drugs from MSF-B/MSF-F & CAMELIA (ANRS)

Most operational costs of the program (salaries/training of NTP/6 regional treatment sites) and 'on the job training' supported by CHC private donations (39 isolation rooms in Phnom Penh, Takeo, Siem Riep, Battambang)

CHC Mobile teams currently underway for case finding in all treatment failures (CATI/CATI/relapse/ ~800 patients)

29 patients have been initiated on CHC MDR Rx and treated at home with Home DOTS and patient supporters in CHC-NTP partnership



MDR Outcomes

79 cases notified

8 dead before DST available

3 refused treatment

8 MDR on DRS by NTP

60 initiated treatment (29 at home)

6 defaulted (all due to drug toxicity); 3
now back

4 dead

HIV+: 19 (8 CAMELIA pts)

4 cures (begun in Oct 2006)

But, **unacceptable** delay in getting drugs and resources-
-local NGO (CHC) filled and is filling the gap

Ethiopia



CHC team visit to St Peter's Hospital, Addis Ababa
August 2008 to assist Ethiopian NTP MDR plan

Population ~79-90 million

129K new TB cases/year

(1.6% MDR & ~12% MDR in
retreatment cases)

~6K new MDR/year

221 MDR documented by DST as of
8/08

GLC application initiated 2007 and
submitted June 2008

Approval for (ONLY!) 45 patients in
process

Vietnam

- ~1000 MDR patients
- GLC approval for drugs for only 100 patients obtained, but still waiting for drugs to arrive
- Only those patients able to pay for drugs (~200) are able to access them currently



CHC team provides advice and drug access to Vietnamese colleagues on XDR patient management in HCM City in August 2008

Leveraging CHC to assist Ethiopia (and Vietnam)

Training on site and ongoing technical support in country by Cambodian team--using capacity of CHC in south-to-south transfer of expertise

Transfer of CHC procedures and operational community-based approaches to MDR and TB control

Assisting with obtaining/buying MDR drugs

Practical training of MDR teams and case management in Cambodia

Conclusions

- Access to MDR drugs and care is currently inadequate
- An integrated approach of hospitalized based and community based treatment has proved highly successful in treating MDR and providing **universal access** to care in Cambodia--a blueprint for other countries
- Parallel processes that complement GLC efforts for MDR, such as the CHC/GHC model that leverages the community-based expertise of CHC/GHC from Cambodia to Ethiopia and Vietnam is extremely effective and provides a model for expansion
- Linkage of Delivery and Discovery an effective CHC/GHC model for enhancing MDR services
- Integrated approach of TB/HIV services necessary for approaching MDR
- Greater and quicker access to MDR drugs is critical
- Large scale funding initiative for drugs, technical support and complementary approaches is needed on the scale of a “PEPFAR-like” initiative for MDR/XDR TB

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