

Cambodia

Overview of TB control system

Cambodia continues to focus on improving equity and accessibility to health services, including TB care. The National Committee Against Tuberculosis, a multisectoral partnership, is chaired by the prime minister, and the governor of each province is a member of this committee. The Director General for Health has endorsed the 5-year strategic plan of the NTP and the Minister of Health has endorsed the current policies and strategies for TB control. The NTP is coordinated from the National Centre for TB and Leprosy Control (CENAT) in Phnom Penh, and holds an annual TB conference attended by all provincial TB supervisors. Meetings are organized at provincial level for district supervisors. Taking advantage of recent health reforms, the NTP is providing services in a growing number of peripheral health centres. All such health centres should be involved in the DOTS programme by 2005.

Surveillance, planning, operations

Although data from the 2002 national disease prevalence survey are yet to be published, it is clear that the TB prevalence, and possibly incidence, rates are lower than current WHO estimates. If so, the estimated smear-positive case detection rate by the DOTS programme of 52% for 2002 is too low. Recent rises in case notification rates are mostly due to improved case finding. The reported treatment success rate for the 2001 cohort was very high (92%), well above the 85% target.

By the end of 2003, at least 706 health centres (70%) offered DOTS. By the end of 2005, DOTS should be available through all 942 health centres, some of which are currently

being built, adding to the 75 national and referral hospitals. Activity budgets were also partially decentralized to improve the distribution and management of funds. In rural areas, community-based DOTS will be introduced where appropriate using a recent grant from the GFATM. Plans to use mass media for health education have not been fully implemented due to a lack of motivation among staff and a lack of funds. Strong political commitment for TB control has led to an increase in the national budget for anti-TB drugs, though drug procurement and supply need to be closely monitored through 2004. Commitment was further demonstrated through participation in World TB Day and by organization of an annual TB conference. Provinces and districts held regular meetings, and the national and provincial committees for TB control will be revived to increase

commitment and resources for DOTS.

The NTP is currently revising its TB recording and reporting system to ensure full compatibility with other recent changes to the health information system. As these changes are introduced, training and supervision will be essential to ensure high-quality services, including the consistent and accurate use of smear microscopy for diagnosis.

The new WHO EQA guidelines are being adapted for Cambodia, and implementation has begun in a few areas. Efforts to improve treatment outcomes include better tracing of defaulters (through per diem payments to staff), increased community participation, and strict enforcement of DOT.

Training for TB control will be included within the training package on essential health services. Training on the management of TB in chil-

PROGRESS IN TB CONTROL IN CAMBODIA

Indicators

• Treatment success 2001 cohort	92%
• DOTS detection rate, 2002	52%
• NTP budget available, 2003	43%
• Government contribution to NTP budget, including loans, 2003	16%
• Government contribution to total TB control costs, including loans, 2003	46%
• Government health spending used for TB, 2003	6%

Major constraints to achieving targets

- Limited knowledge, low motivation, and poor salary among health professionals
- Poor awareness of TB in the general population
- Low access to health services, including DOTS, in some areas
- TB/HIV epidemic threatens success of DOTS strategy
- Funding gap

Remedial actions needed to overcome constraints

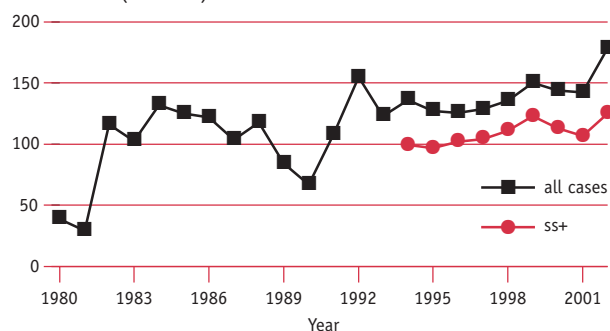
- Offer refresher courses to all TB staff to improve knowledge about TB treatment and control
- Create/revise HRDP to strengthen staffing
- Increase salaries to improve staff motivation
- Strengthen IEC to increase awareness about TB in the general population
- Use community-based DOTS to improve access to services in rural areas
- Screen for TB among people infected with HIV and strengthen collaboration between TB and HIV programmes
- Mobilization of more funding

CAMBODIA

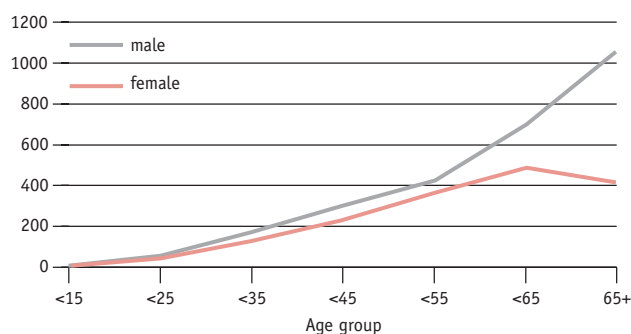
LATEST ESTIMATES ^a		TRENDS	1999	2000	2001	2002
Population	13 809 532	DOTS population coverage (%)	100	99	100	100
Global rank (by est. number of cases)	21	Notification rate (all cases/100 000 pop)	150	144	142	178
Incidence (all cases/100 000 pop)	549	Notification rate (new ss+/100 000 pop)	123	113	107	125
Incidence (new ss+/100 000 pop)	242	Detection of all cases (%)	28	26	26	32
Prevalence (ss+/100 000 pop)	311	Detection of new ss+ cases (%)	51	47	44	52
TB mortality per 100 000 pop	107	DOTS detection of new ss+ (%)	51	47	44	52
% of adult (15-49y) TB cases HIV+	14	DOTS detection of new ss+/coverage(%)	51	47	44	52
% of new cases multi-drug resistant	4.2	DOTS treatment success (new ss+, %)	93	91	92	—

Notification rate (per 100 000 pop)

Notification (all cases) = 13 809 532 in 2002



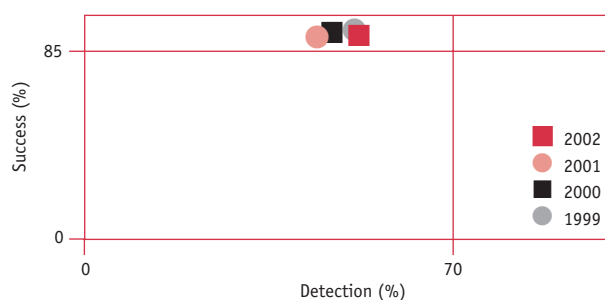
Notification rate by age and sex (new ss+)^b



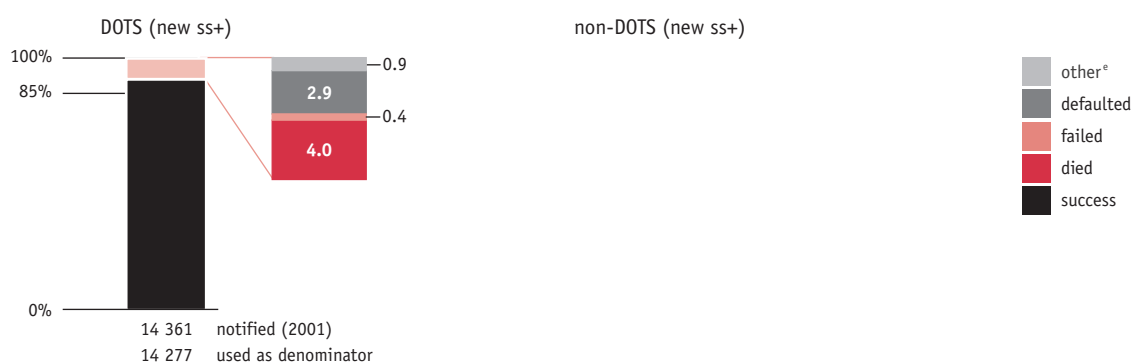
Case types notified^c



DOTS progress towards targets^d



Treatment outcomes^e



Notes

ss+ Indicates smear-positive; ss-, smear-negative; pop, population; unk, unknown.

^a See Methods for data sources.

^b The sum of cases notified by age and sex is less than the number of new smear-positive cases notified for some countries.

^c Non-DOTS is blank for countries which are 100% DOTS, or where no non-DOTS data were reported.

^d DOTS progress towards targets: DOTS detection rate for given year, DOTS success rate for cohort registered in previous year.

^e "Other" includes transfer out and not evaluated, still on treatment, and other unknown.

Budget estimates, existing funding, and budget gaps for fiscal year 2003, US\$ millions

	REQUIRED FUNDING	EXPECTED FUNDING				FUNDING GAP
		GOVERNMENT	LOANS	GRANTS	OTHER	
NTP budget						
Drugs	1.2	0.2	—	0.1	—	0.9
Dedicated staff working exclusively for TB control	0.9	0.1	—	—	—	0.8
New activities to raise case detection and cure rates	1.0	—	0.05	0.05	—	0.9
Buildings, equipment, vehicles	0.8	0.1	—	0.1	—	0.6
All other line items	2.0	0.65	0.3	0.9	—	0.15
TOTAL NTP BUDGET	5.9	1.05	0.35	1.15	—	3.35
Costs not covered by NTP budget^a						
Hospital stay	1.1	1.1	—	—	—	—
Clinic visits for DOT and monitoring	2.0	2.0	—	—	—	—
TOTAL COSTS NOT COVERED BY NTP BUDGET	3.1	3.1	—	—	—	—
TOTAL TB CONTROL COSTS	9.0	4.15	0.35	1.15	—	3.35

— Indicates zero; NA, not available

^a WHO estimates, data not provided by the NTP

dren will begin after guidelines have been finalized and approved by the MoH. It is anticipated that staff in all TB units will be trained to treat pediatric patients within 2 years. Because overseas training opportunities have been limited to those who speak English, language lessons are planned, especially for staff in operational districts.

There is a TB/HIV coordinating body at national level only. Most collaborative activities are implemented either by the MoH, NGOs, or research organizations in 16 of 183 districts. There is a surveillance system for TB in HIV patients, and the national HIV prevalence in TB patients is estimated to be 20%. A pilot project on TB/HIV management began in 4 provinces that have relatively high rates of HIV infection. There are plans to involve the NTP in ART delivery in 2004. Cambodia has recently conducted a DRS survey within the framework of the WHO/IUATLD global project on anti-TB drug resistance surveillance, and the prevalence of MDR-TB among previously treated cases was only 3.1% (cf estimated 4.2% MDR-TB rate among new cases given in accompanying table).

Private practitioners treat an unknown proportion of TB cases, as their formal involvement in the NTP

has been limited. Non-adherence to DOTS in the private sector and in some large hospitals is being addressed through the development of a PPM project funded by the GFATM. This is expected to encourage prompt referral of TB suspects to the TB unit, and to support follow-up of patients in the community.

Partnerships

WHO, JICA, and RIT lead external technical collaboration. The WFP provides a nutritional support scheme for TB patients. Principal financial partners are the World Bank, JICA, CIDA, and WHO, with additional support from the GoJ, USAID, and TBCTA. A recent, successful application to the GFATM will reduce the funding gap.

Budgets and expenditures

Expenditures by the NTP in fiscal year 2002 (from 1 January) were US\$ 2.7 million, the same as the funding received. With nearly 24 000 patients treated, this was equivalent to US\$ 113 per patient. The majority of funding came from grants, while the government and a World Bank loan each provided almost 25% of available funding. Expenditures for items not covered by the NTP budget were about US\$ 2.5 million. Total TB con-

trol costs for 2002 were therefore around US\$ 5.2 million, or about US\$ 217 per patient.

The NTP budget for the fiscal year 2003 was more than double spending in 2002, at US\$ 5.9 million. This was to allow for accelerated DOTS expansion and increased case detection. The NTP estimated that they would treat 30 000 patients during 2003, implying a budget per patient of US\$ 197 – a 75% increase compared to 2002. However, only 43% of the required funding was available (US\$ 2.6 million, similar to actual spending in 2002), mostly from grants, with a large gap of US\$ 3.35 million for drugs, dedicated staff, new activities to increase case detection and cure rates, and buildings, equipment and vehicles. It will be interesting to see what level of case detection was achieved in 2003, given these funding problems. If the target of treating 30 000 patients was reached, then costs associated with TB control beyond those funded from the NTP budget would amount to around US\$ 3.1 million, implying total TB control costs of US\$ 9 million (or US\$ 300 per patient). Funding problems should ease in 2004, given a successful application to the GFATM in 2003 worth US\$ 6.7 million over 5 years.