

Kenya

Overview of TB control system

Health sector reform in Kenya has supported the decentralization of TB services with the goal of improving access to care and, in particular, reaching those most disadvantaged. Despite a policy of free TB treatment in the public sector, a study conducted in 2003 found that poverty is still a barrier to TB care as patients must share costs for medical consultations and medicines before being referred for TB diagnosis. This often results in diagnostic delays, or undiagnosed cases. The TB programme will begin addressing these issues in 2004. DOTS expansion efforts in 2003 focused on strengthening the decentralized laboratory network, on devolving DOTS delivery to public health centres and dispensaries, and on bringing more partners into TB control.

Surveillance, planning, operations

While the case notification rate has increased approximately 5-fold over the past decade, the smear-positive case detection rate by the DOTS programme is thought to have remained fairly steady, between 45–60%. However, estimates of the case detection rate for the past few years have been based on an analysis of tuberculin survey data done before HIV had a major impact on TB in Kenya. The most recent estimate of the smear-positive case detection rate (49% in 2002) therefore needs to be verified, either through a fuller evaluation of the surveillance system, or via population-based surveys of TB incidence and prevalence. Case notification rates are highest among young adults, which is typical of countries with high rates of HIV infection. Treatment success among smear-

positive cases under DOTS was 80% in the 2001 cohort, but 13% completed treatment without documented smear conversion, 8% of patients defaulted, and 6% were transferred without follow-up. Despite high rates of HIV infection, the reported cohort death rate was no more than 5%, though some patients lost to follow-up would have died.

The NTP is implementing its 2001–5 strategic plan, with the goal of reaching targets for case detection and treatment success by 2005. Kenya is already beginning to develop a plan for 2005–9. The progressive integration of TB control into the general health services continues to facilitate the expansion of DOTS, though staff shortages hinder progress. There are 8 staff members

in the central unit, up from 4 in 2002. All provinces and districts have programme coordinators. The central unit provides supervision in all areas, though it is currently short-staffed. A national professional TB officer has been recruited by WHO to assist the NTP with development of staff capacity, and secondments of 3 more staff are planned. More professionals will be trained in TB control by restructuring the NICC to include members of training colleges. Despite a chronic lack of resources in some areas, strong managerial and operational structures are in place centrally, and these have helped to sustain effective TB services under increasingly difficult conditions. Though TB services are not always comprehensive, nationwide NTP cov-

PROGRESS IN TB CONTROL IN KENYA

Indicators

| | |
|--|-----|
| • Treatment success 2001 cohort | 80% |
| • DOTS detection rate, 2002 | 49% |
| • NTP budget available, 2003 | 70% |
| • Government contribution to NTP budget, including loans, 2003 | 36% |
| • Government contribution to total TB control costs, including loans, 2003 | 46% |
| • Government health spending used for TB, 2003 | 4% |

Major constraints to achieving targets

- Funding gap of US\$ 3.3 million in 2003
- Too few trained personnel at local level coupled with insufficient number of staff at central level
- Private sector not fully engaged in delivering DOTS treatment
- Insufficient public awareness about TB, including awareness that diagnosis and treatment can be obtained free of charge
- Rapid growth in the proportion of TB patients infected with HIV, yet poor collaboration between TB and HIV/AIDS programmes

Remedial actions needed

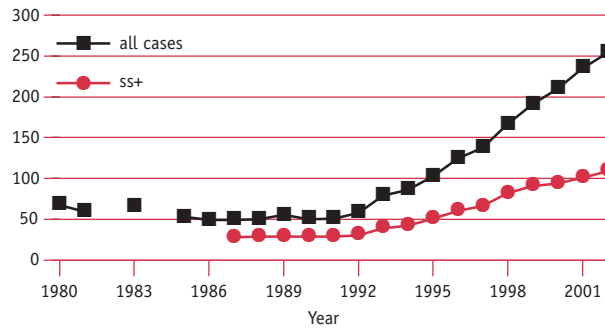
- Mobilize funding
- Improve recruitment and retention of local personnel
- Develop plan to strengthen health workforce
- Give incentives to attract private practitioners to provide DOTS services
- Strengthen public awareness through new COMBI plan, and through a strategy for urban TB control
- Provide technical assistance to strengthen programme evaluation, and to carry out research on service delivery
- Improve HIV testing and counselling, and strengthen collaboration between TB and HIV/AIDS programmes

KENYA

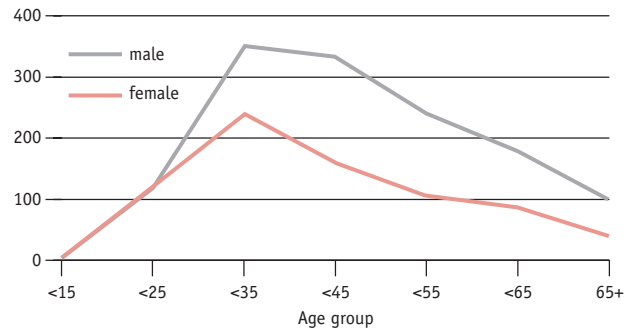
| LATEST ESTIMATES ^a | | TRENDS | 1999 | 2000 | 2001 | 2002 |
|---------------------------------------|-------------------|---|------|------|------|------|
| Population | 31 540 420 | DOTS population coverage (%) | 100 | 100 | 100 | 100 |
| Global rank (by est. number of cases) | 12 | Notification rate (all cases/100 000 pop) | 191 | 210 | 235 | 254 |
| Incidence (all cases/100 000 pop) | 540 | Notification rate (new ss+/100 000 pop) | 91 | 94 | 101 | 109 |
| Incidence (new ss+/100 000 pop) | 223 | Detection of all cases (%) | 51 | 49 | 49 | 47 |
| Prevalence (ss+/100 000 pop) | 296 | Detection of new ss+ cases (%) | 58 | 54 | 51 | 49 |
| TB mortality per 100 000 pop | 132 | DOTS detection of new ss+ (%) | 58 | 49 | 51 | 49 |
| % of adult (15-49y) TB cases HIV+ | 51 | DOTS detection of new ss+/coverage(%) | 58 | 49 | 51 | 49 |
| % of new cases multi-drug resistant | 0.0 | DOTS treatment success (new ss+, %) | 78 | 80 | 80 | — |

Notification rate (per 100 000 pop)

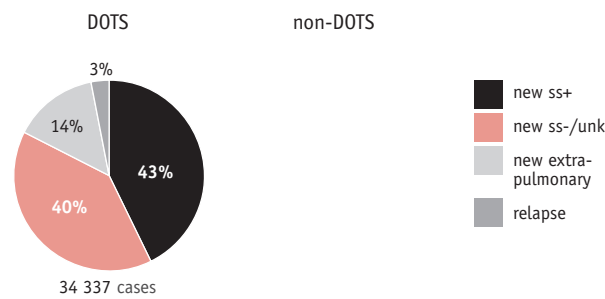
Notification (all cases) = 80 183 in 2002



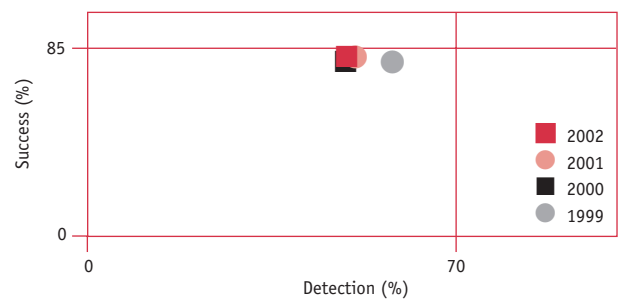
Notification rate by age and sex (new ss+)^b



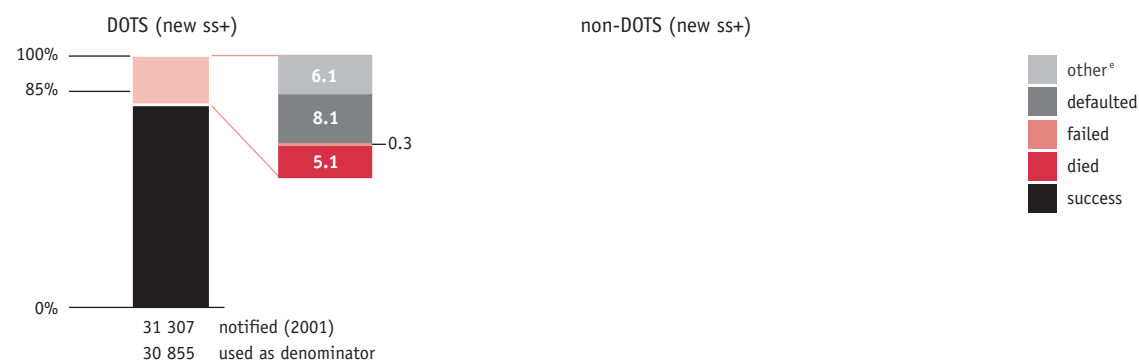
Case types notified^c



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.

KENYA

erage is supported through community participation in some districts, outreach to nomadic peoples, and wider use of the DOTS strategy in the private sector in Nairobi.

The central referral laboratory has been refurbished, resuming culture from sputum and drug sensitivity testing. Additional laboratory staff have been trained in sputum smear microscopy. Referral laboratories are planned for Mombasa and Eldoret.

Collaboration between the NTP and private providers has improved over the past 4 years, and there have been concerted efforts to expand the availability of DOTS through private providers to cities and large towns. Aventis Pharma has assisted the private sector by donating enough drugs to treat 1500 patients over 1 year. A prepaid system is in place, ensuring that patients receive a full course of treatment once enrolled. Between the 2nd quarter of 2002 and the 3rd quarter of 2003, about 1000 new TB patients were registered under this scheme. Training of private physicians is supported by the Kenyan Association for the Prevention of TB and Lung Diseases (KAPTLD) and by pharmaceutical companies. Data are collected in collaboration with the NTP.

Although there is not yet a system for TB/HIV surveillance, 51% of adult TB patients were estimated to be infected with HIV in 2002. Efforts are underway to establish a clear policy for collaboration between TB and HIV/AIDS control programmes. A TB/HIV coordinating body, has been appointed to spearhead this collaboration. Policies have been developed, though no collaborative activities have yet begun. There is also a proposal to test the feasibility of establishing similar task forces in districts, and to involve the NTP in ART delivery through WHO's "3 by 5" initiative.

In 2003 Kenya launched a community mobilization campaign to raise awareness of, and increase community commitment to, TB control. However, The National AIDS and STDs Control Programme (NASCO) and the NTP have very different objectives relating to community-based TB care, and have yet to agree on mutually beneficial guidelines. Now that funding is available, this impasse should be resolved.

Many people seek care from Nairobi's large private sector, and KAPTLD has expanded their PPM project to several hospitals and chest

physicians in Nairobi and Mombasa. Funds are being sought to sustain the initiative, and to work with private GPs serving slums.

Kenya collects data on drug resistance within the framework of the WHO/IUATLD global project. A 1995 DRS survey did not show MDR-TB to be a problem, as no MDR was found among 445 new TB cases and 46 previously treated cases. A second DRS survey was conducted in 2002, with 1200 samples drawn from 39 sites throughout the country. The results are awaited.

Other initiatives are designed to find and effectively treat patients living in urban slum areas, and to provide TB services in areas that are difficult to reach by working with resident NGOs. In 2003, a COMBI strategy was launched including the production of IEC materials and the training of provincial and district focal points for communications. Radio and television advertisements for TB awareness will begin in early 2004.

Partnerships

KNCV and WHO lead technical support for the country, backed by CDC, USAID through the JSI Deliver Project

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 | 2.2 | 1.3 | 0.5 | 0.4 | — | — |
| Dedicated staff working exclusively for TB control | 5.1 | 1.0 | — | 0.4 | 0.4 | 3.3 |
| New activities to raise case detection and cure rates | 2.5 | — | — | 2.5 | — | — |
| Buildings, equipment, vehicles | NA | NA | — | NA | — | — |
| All other line items | 1.2 | 1.2 | — | — | — | — |
| TOTAL NTP BUDGET | 11.0 | 3.5 | 0.5 | 3.3 | 0.4 | 3.3 |
| Costs not covered by NTP budget^{a,b} | | | | | | |
| Hospital stay | 0.5 | 0.5 | — | — | — | — |
| Clinic visits for DOT and monitoring | 2.3 | 2.3 | — | — | — | — |
| TOTAL COSTS NOT COVERED BY NTP BUDGET | 2.8 | 2.8 | — | — | — | — |
| TOTAL TB CONTROL COSTS | 13.8 | 6.3 | 0.5 | 3.3 | 0.4 | 3.3 |

— Indicates zero; NA, not available

^a WHO estimates, data not provided by the NTP

^b Estimates differ from those in Global TB Control 2003 due to a change in methods made possible by the availability of new data. See Methods for full details.

KENYA

and FHI, and CIDA (operating through KNCV). CDC and CIDA now support programme activities previously funded by the Dutch government, including logistics, training, and an external programme adviser. Drugs are purchased with a loan from the World Bank and a grant from the GDF. The TB and HIV/AIDS programmes have strengthened their partnership with the World Bank through the DARE project. FHI is supporting some laboratory and TB/HIV activities.

Budgets and expenditures

The NTP budget for the fiscal year 2003 (from 1 July) is US\$ 11.0 million. The NTP estimates that they will treat 110 000 patients during this

period, implying a budget per patient of US\$ 100. The government will provide US\$ 3.5 million of the required funding, which represents an increase of US\$ 1.2 million from 2002. Approximately 50% of the total costs for TB control in the public sector in Kenya are borne by the government. TB control activities account for almost 4% of government spending on health.

In 2003, Kenya was awarded US\$ 4.9 million for tuberculosis control from the GFATM. In August 2003, US\$ 839 000 of this grant was disbursed thereby reducing the anticipated financing gap. However, a gap of US\$ 3.3 million remains meaning that approximately 30% of the required budget for the fiscal year 2003

is not available. Compared to 2002 expenditures, there are large increases in the 2003 budget for new activities to expand DOTS as well as for staff working on TB and TB/HIV. A slight increase in the drug budget reflects the anticipated increase in case detection. The drug budget, at US\$ 2.2 million, is equivalent to US\$ 20 per patient.

Costs associated with TB control that were not funded from the NTP budget amounted to an estimated US\$ 2.8 million, of which US\$ 0.5 million was for hospital admissions during treatment and US\$ 2.3 million was for clinic visits during treatment. These data imply total TB control costs of US\$ 13.8 million in 2003, and US\$ 125 per patient.