

Low access to a highly effective therapy: a challenge for international tuberculosis control

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Objective To determine the scale of the tuberculosis (TB) problem facing the international Stop TB Partnership by measuring the gap between present rates of case detection and treatment success, and the global targets (70% and 85%, respectively) to be reached by 2005 under the WHO DOTS strategy.

Methods We analysed case notifications submitted annually to WHO from up to 202 (of 210) countries and territories between 1980 and 2000, and the results of treatment for patients registered between 1994 and 1999.

Findings Many of the 148 national DOTS programmes in existence by the end of 2000 have shown that they can achieve high treatment success rates, close to or exceeding the target of 85%. However, we estimate that only 27% of all the new smear-positive cases that arose in 2000 were notified under DOTS, and only 19% were successfully treated. The increment in case-finding has been steady at about 133 000 additional smear-positive cases in each year since 1994. In the interval 1999–2000, more than half of the extra cases notified under DOTS were in Ethiopia, India, Myanmar, the Philippines, and South Africa.

Conclusion With the current rate of progress in DOTS expansion, the target of 70% case detection will not be reached until 2013. To reach this target by 2005, DOTS programmes must find an additional 333 000 cases each year. The challenge now is to show that DOTS expansion in the major endemic countries can significantly accelerate case finding while maintaining high cure rates.

Keywords Tuberculosis, Pulmonary/diagnosis/drug therapy; Disease notification; Treatment outcome; Program evaluation; World Health Organization (*source: MeSH, NLM*).

Mots clés Tuberculose pulmonaire/diagnostic/chimiothérapie; Notification maladie; Evaluation résultats traitement; Evaluation programme; Organisation mondiale de la Santé (*source: MeSH, INSERM*).

Palabras clave Tuberculosis pulmonar/diagnóstico/quimioterapia; Notificación de enfermedad; Resultado del tratamiento; Evaluación de programas; Organización Mundial de la Salud (*fuentes: DeCS, BIREME*).

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Introduction

The past two years have been remarkable for the way in which the international Stop TB Partnership has coalesced behind an agreed plan, with agreed funding needs, to reach agreed global targets. This is the fruit of work that took the TB control community from the Amsterdam Declaration (March 2000) to the Washington Commitment (October 2001). Between those two events were launched the Global Plan to Stop TB (GPSTB), the Global Drug Facility (GDF), and the Global DOTS Expansion Plan (GDEP). The estimated financial need for GDEP — approximately US\$ 1.2 billion per year from 2002 to 2005 (1) — was echoed in the 2001 report of the Commission on Macroeconomics and Health (2). With this unprecedented unanimity of purpose, the Stop TB Partnership can claim to represent a new movement for global TB control.

The Stop TB Partners' Forum in Washington, USA, reaffirmed its commitment to reaching the WHO target of detecting 70% of new smear-positive cases under DOTS by 2005 and of successfully treating 85% of these patients. WHO's monitoring and surveillance project is primarily a mechanism for assessing trends in TB incidence, and tracking progress towards these targets. The project has recorded 68 million TB cases

since 1980, and 10 million new smear-positive cases since 1993, of which 7 million were monitored for treatment outcome. WHO data suggest that the 10 millionth TB patient will be treated under DOTS sometime during 2002.

In this paper we summarize the most recent findings of the surveillance project, focusing on progress towards the 2005 targets for case detection and treatment success. We present data for the world as a whole, for different regions, and for a selection of countries and territories that carry the highest burden of TB (22 countries account for about 80% of all new TB cases arising annually). A more comprehensive analysis of the latest data is provided elsewhere (3).

Interventions against TB and targets for control

Notwithstanding widespread BCG vaccination (4, 5), and a growing interest in the treatment of latent TB infection (6), the principal method of TB control is prompt treatment of symptomatic cases with short-course chemotherapy, administered as the DOTS strategy (7). The strategy has five elements: political commitment; case detection by sputum smear

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microscopy mostly among self-referring symptomatic patients; standard short-course chemotherapy administered under proper case management conditions including directly observed therapy; a system to ensure regular drug supplies; and a standard recording and reporting system including the evaluation of treatment outcomes. Standard short-course regimens can cure over 90% of new, drug-susceptible TB cases, and high cure rates should be a prerequisite for expanding case finding. In areas with high rates of drug resistance, especially multiple drug resistance, cure rates are typically lower (8). WHO recommends that all countries implement the DOTS strategy in full and that DOTS should be the basis of more complex strategies (e.g. DOTS-Plus) for TB control where rates of drug resistance or HIV infection are high.

Table 1 sets out the global targets for TB control under DOTS, here expressed within the framework of the United Nations Millennium Development Goals. The objectives (usually referred to as “targets” by WHO) of 70% case detection (24a) and 85% cure (24b) — the main concern in this paper — were ratified by the World Health Assembly, originally for the year 2000 (11), but were then deferred to 2005 (12). The additional objectives of halving TB prevalence (23a) and deaths (23b) were proposed at the 2000 G8 summit in Okinawa, Japan. Although the objectives for implementation (24a, 24b) are global, they are commonly used within countries and WHO regions. Two of WHO’s six regional offices (the WHO Regional Office for the Western Pacific and the WHO Regional Office for the Eastern Mediterranean) have formally adopted the 2010 impact objectives (23a, 23b). These objectives do not imply that all reductions in prevalence and deaths seen by 2010 will necessarily be due to the impact of DOTS. Indeed, because national TB control programmes are not controlled trials, we may never be able fully to explain observed trends in TB case notifications or deaths.

Methods

Collection of surveillance data

Every year since 1996, we have asked the national health authorities in 210 countries and territories to complete a standard TB data collection form (prior to 1996, methods were not standardized) (13). Following WHO/International Union Against Tuberculosis and Lung Disease definitions for TB surveillance (14), the form asks for: first, national policy and typical practice on TB control during the past year (most recently 2000), including population coverage of DOTS and other non-DOTS strategies; second, TB cases reported during the past year, including a stratification of smear-positive cases by age and sex; and third, treatment outcomes for smear-positive cases registered during the preceding year (most recently 1999), plus outcomes for all retreatment cases.

Both case notifications and treatment outcomes are recorded from DOTS and non-DOTS areas separately. Treatment outcomes are not expected from non-DOTS programmes, but the form allows respondents to supply these data if they can do so. Completed forms are first reviewed in the relevant WHO country and regional office, and then at WHO headquarters in Geneva, Switzerland. Inconsistencies in the data are followed up with national TB programme managers, or with other responsible people in countries.

DOTS classification

A country is considered to be implementing the DOTS strategy if it has a national TB control policy based on the WHO recommendations, complies with the technical elements of the strategy (listed above), and reports on notifications and treatment outcomes from DOTS areas. If DOTS is implemented only in some districts (or equivalent administrative units) on the initiative of local authorities, but endorsed by national authorities, the country is also classified as implementing DOTS. If a country reports that DOTS was newly implemented during the past year, so that the results of cohort analysis are not yet available, it is also classified as implementing DOTS, provided that case notifications from DOTS areas are supplied. DOTS coverage within a country is calculated as the fraction of the population living in administrative units that provide all elements of the DOTS strategy.

Treatment success

The latest results on treatment success are for the cohort of patients registered in 1999; this is the fifth consecutive annual cohort of patients for which WHO has compiled data. We calculate six standard, mutually exclusive outcomes of treatment (15): cured, completed treatment, died during treatment, interrupted treatment (defaulted), transferred to another reporting centre, and failed. “Cure” is defined as bacteriological conversion from positive to negative, either of sputum smear or culture. Patients who “complete treatment” do so without evidence of bacteriological conversion. Treatment success is defined as the proportion of registered patients who were cured plus the proportion who completed treatment. The denominator for all outcomes is the number of cases registered for treatment, which should be the same as the number notified in the previous year (we compare these two as a measure of the quality of treatment programmes). These figures are reported as percentages of all registered cases, so that the six possible outcomes plus the fraction of cases not evaluated add up to 100%. If the number registered is not provided, we use the number notified for the cohort year as the denominator. If the sum of the outcomes is greater than the number registered (or the number notified, if the number registered is not provided), the sum of outcomes is used as the denominator. Although treatment outcomes are expressed as percentages, they are usually referred to as “rates”.

Case detection

Case notifications for all forms of TB are available from 1980 to 2000, and distinguish sputum smear-positive from smear-negative cases since 1995 (16). Case notifications usually represent a fraction of the true number of TB cases arising in a country because of incomplete coverage by health services, inaccurate diagnosis, or deficient recording and reporting. The estimated smear-positive case detection rate is defined as:

$$\text{case detection rate (\%)} = \frac{\text{annual new smear-positive notifications (country)}}{\text{estimated annual new smear-positive incidence (country)}} \quad (\text{Eq. 1})$$

in which the denominator was obtained from a reappraisal of TB incidence for the year 2000 (3), updating estimates for 1997 (17). Clearly, Eq. 1 can only be used to calculate the case detection rate when there are independent data with which to estimate the true incidence — these are usually data from

Table 1. Millennium Development Goals,^a targets, indicators, and operational definitions relevant to tuberculosis (TB)

Millennium Development Goal 6: combat HIV/AIDS, malaria, and other diseases			
Target 8 ^b	TB indicators	Proposed operational definitions	Objectives
Have halted by 2015, and begun to reverse, the incidence of malaria and other major diseases	23. TB prevalence and death rates	23a. Number of smear-positive cases (per 100 000 population)	23a. By 2010, reduce prevalence to 50% of the year 2000 estimate ^c
	24. Proportion of TB cases detected and cured under DOTS	23b. Number of TB (all forms) deaths/100 000 population/year	23b. By 2010, reduce death rate to 50% of the year 2000 estimate ^c
		24a. Proportion of all estimated new smear-positive TB cases detected under DOTS in a given year	24a. By 2005, reach 70% case detection ^d
		24b. Proportion of registered smear-positive TB cases successfully treated under DOTS	24b. By 2005, reach 85% treatment success ^d

^a At the time of writing, the Millennium Development Goals consist of 8 goals, 18 targets, and 48 indicators (9).

^b Target 8 is ambiguous as currently worded. WHO has recently suggested the alternative: "Have halved by 2010, and further reduced by 2015, the burden of malaria and TB".

^c Objectives 23a and 23b were proposed at the 2000 G8 summit in Okinawa, Japan (10).

^d Objectives 24a and 24b were ratified at the Forty-fourth World Health Assembly (11) and supplemented by the Fifty-third World Health Assembly (12). The intention is to maintain or exceed target levels after 2005.

surveys of the prevalence of infection or of smear-positive disease (15). A stricter measure of case finding is the fraction of all incident smear-positive cases which are detected (and potentially treated) by DOTS programmes:

$$\text{case detection rate under DOTS (\%)} = \frac{\text{annual new smear-positive notifications (under DOTS)}}{\text{estimated annual new smear-positive incidence (country)}} \quad (\text{Eq. 2})$$

Eq. 1 and Eq. 2 give the same result when a country reports only from DOTS areas, which should happen only when DOTS coverage is 100%. A more comprehensive account of the methods used to evaluate treatment success and case detection is given elsewhere (3).

Results

DOTS coverage

A total of 202 countries and territories (out of 210) reported data to WHO for the year 2000; 148 countries had adopted the DOTS strategy. Ninety-five countries had more than 90% DOTS coverage. We estimate that over half (55%) the world's population lived in parts of countries — counties, districts, provinces, and oblasts — providing DOTS.

Treatment success

The number of new sputum smear-positive cases notified under DOTS in 1999 (869 480) was approximately the same as the number of cases (876 284) registered for treatment in 1999 (Table 2). However, the equivalence was achieved, in part, by balancing errors: Brazil and Ethiopia registered many fewer patients than were originally notified; Pakistan and the Philippines registered many more patients than were notified.

Of the registered cases, 96% were evaluated for treatment outcome. Seventy-two percent of the registered cases were cured and a further 8% completed treatment (no laboratory confirmation of cure), giving an overall treatment success rate of 80% in DOTS areas. Eighty-three percent of evaluated cases, and 19% of all estimated smear-positive cases, were treated successfully under DOTS. Treatment success was lower in African countries such as Mozambique, South Africa, and Uganda, in part because of high death rates almost certainly

linked to HIV/AIDS (human immunodeficiency virus/acquired immunodeficiency syndrome). Cure rates were also relatively low in the Russian Federation, perhaps related to the high frequency of drug resistance. Brazil's recorded treatment success under DOTS was 11%, because only 250 of 2108 notified smear-positive patients were evaluated.

In the non-DOTS areas that presented results, treatment success was low (28%) and the cure rate significantly lower (22%). This poor performance can be explained by poor reporting, the low evaluation rate (41%), and by treatment interruption (default) (7%). Looking at evaluated patients only, 68% were successfully treated outside DOTS programmes.

By WHO region, the documented treatment success rates under DOTS varied from 69% in the African Region to 94% in the Western Pacific Region. Fatal outcomes were common, not only in the African Region (7%), but also in the European Region (6%), where a higher fraction of cases occurs among the elderly. Treatment interruption was most frequent in the African Region (11%) and Eastern Mediterranean Region (8%).

Comparing treatment results for six consecutive cohorts of smear-positive patients (1995–99) reveals that the overall treatment success rates have remained approximately stable at 77–81% under DOTS, and 54–64% worldwide.

Case detection

Fig. 1 shows the series of case notifications that have been used to identify the two most important regional trends in incidence. Although the number of new TB cases reported annually has been rising quickly in countries of eastern Europe, and in eastern and southern African countries most affected by HIV/AIDS, there is evidence that the rates of increase are slowing in both parts of the world. Notifications in the world as a whole have remained roughly stable at about 60 per 100 000 population since our records began in 1980. Only in industrialized countries has the number of TB cases per capita declined continuously since 1980 (3).

The 3 671 973 cases of all forms of TB (61 per 100 000 population) notified in 2000 represent 42% of the 8.74 million estimated new cases; the total of 1 529 806 new smear-positive cases is 40% of the 3.84 million estimated cases.

Table 2. Treatment outcomes for new smear-positive cases in the 22 high-burden countries and globally: DOTS strategy, 1999 cohort^a

Rank ^b	Country	Notified <i>n</i>	Registered <i>n</i>	Treatment outcomes (%) ^c							Treatment success (%)	% of estimated ^d cases successfully treated under DOTS
				Cured	Completed treatment	Died	Failed	Defaulted	Trans- ferred	Not evalu- ated		
1	India	53 034	53 086 (100) ^e	80	2.1	4.5	3.0	9.3	0.8	0.1	82	5.3
2	China	188 525	188 112 (100)	96	NA ^f	1.1	1.0	0.7	0.3	0.5	96 ^g	31
3	Indonesia	49 172	46 187 (94)	42	8.2	1.4	1.2	1.6	0.5	45	50	8.7
4	Nigeria	15 903	14 868 (93)	60	15	6.0	2.7	13	2.6	0.0	75	7.9
5	Bangladesh	34 047	34 047 (100)	78	3.5	4.6	0.8	7.8	2.9	2.7	81	19
6	Ethiopia	21 457	15 980 (74)	60	16	6.8	1.0	9.7	4.0	2.6	76	13
7	Philippines	20 477	36 913 (180)	70	17	2.7	1.5	5.8	3.1	0.0	87 ^g	30
8	Pakistan	2269	2967 (131)	56	14	4.4	0.7	21	3.6	0.3	70	1.9
9	South Africa	54 404	63 304 (116)	52	7.9	7.0	1.3	13	17	2.2	60	45
10	Russian Federation	1274	1542 (121)	63	2.7	9.4	9.3	6.3	7.5	2.1	65	1.3
11	Democratic Republic of the Congo	34 923	34 923 (100)	59	9.7	5.4	0.9	7.4	8.8	8.7	69	38
12	Kenya	27 197	24 670 (91)	64	14	6.0	0.3	9.5	6.2	0.0	78	38
13	Viet Nam	53 561	53 227 (99)	90	2.1	2.9	1.2	2.0	1.2	0.4	92 ^g	75
14	United Republic of Tanzania	24 125	23 994 (99)	71	6.2	9.8	0.4	6.7	5.7	0.0	78	38
15	Brazil	2108	NA NA	10	0.9	0.6	0.1	0.6	0.0	88	11	0.4
16	Thailand	14 934	13 650 (91)	73	4.1	11	1.9	8.2	2.2	0.0	77	27
17	Uganda	18 149	14 250 (79)	30	31	7.8	0.3	16	5.1	9.1	61	27
18	Myanmar	11 458	11 641 (102)	70	11	5.4	1.7	10	1.9	0.0	81	26
19	Mozambique	NA	11 791 NA	69	2.3	11	1.3	12	2.6	1.5	71	28
20	Cambodia	15 744	15 744 (100)	91	2.8	2.6	0.4	3.0	0.5	0.0	93 ^g	46
21	Zimbabwe	14 414	12 791 (89)	59	14	10	0.1	6.6	11	0.0	73	34
22	Afghanistan	1669	NA NA	80	6.4	4.3	2.1	5.0	2.0	0.0	87 ^g	5.0
High-burden countries		658 844	673 687 (102)	75	6.1	4.1	1.2	5.8	3.7	4.6	81	19
Global (DOTS)		869 480	876 284 (101)	72	8.2	4.4	1.4	6.2	3.7	4.1	80	19

Source: ref. 3.

^a Cohort: tuberculosis (TB) cases diagnosed during 1999 and treated/followed-up through 2000.

^b Countries are ranked by the estimated number of new TB cases each year.

^c If the number registered was provided, this (or the sum of the outcomes, if greater) was used as the denominator for calculating treatment outcomes. If the number registered was missing, then the number notified (or the sum of the outcomes, if greater) was used as the denominator.

^d Estimated cases (as opposed to notified or registered) for 1999.

^e Figures in parentheses are percentages.

^f NA = not available.

^g Treatment success was greater than the target of 85%.

Both of these fractions have remained fairly stable over the six years for which we have compiled data.

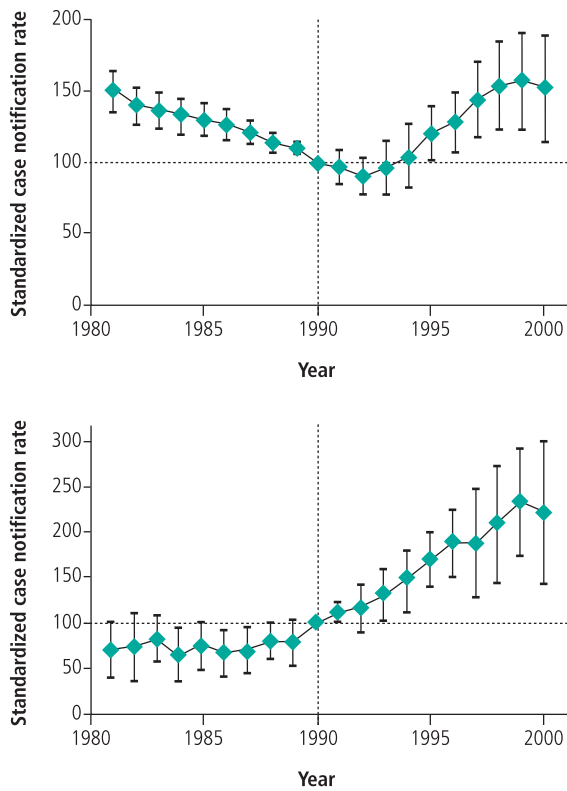
Among all cases reported for 2000, almost 2 million (1 984 439), i.e. over half, originated in DOTS areas. Of the smear-positive cases, 1 021 404 (about two thirds) were notified under DOTS. Both of these figures represent an increase of 18% on the levels seen in 1999. The WHO African Region (20%), South-East Asia Region (38%), and Western Pacific Region (22%) together accounted for 80% of all notified cases and similar proportions of sputum smear-positive cases.

The global case notification rate has remained roughly stable since 1980, and the overall smear-positive case detection rate appears to have stabilized at about 40%. However, the number of cases enrolled in DOTS programmes has increased linearly (Fig. 2). Twenty-three percent of all estimated cases and 27% of estimated smear-positive cases were detected under DOTS in 2000. The increment in the number of smear-

positive cases detected under DOTS between 1999 and 2000 was 151 924 cases, similar to the annual average increment of 132 572 (standard error: 20 106) since 1994. By WHO region, the rate of increase has been faster in the South-East Asia Region, and slower in the African Region and the Region of the Americas. Over half of the additional smear-positive cases reported under DOTS in 2000 (as compared with 1999) were found in just five countries: India (28%), the Philippines (19%), Ethiopia (6%), South Africa (5%), and Myanmar (4%). Only India, the Philippines, and Myanmar significantly increased the proportion of all new cases detected.

Some countries appear to be achieving high rates of case detection within DOTS areas as they expand coverage nationwide. Thus, the Democratic Republic of the Congo, South Africa, Thailand, and Viet Nam have ratios of case detection/coverage exceeding 0.6 (on a scale of 0–1; Fig. 3). Others, notably Brazil, Indonesia, Nigeria, and the Russian Federation are failing to achieve such high rates.

Fig. 1. Trends in tuberculosis case notification rates, 1980–2000, for countries of eastern Europe (upper panel), countries of eastern and southern Africa with high HIV prevalence (lower panel)



To highlight trends in notifications within regions, the rates for all countries have been expressed relative to an arbitrary standard of 100 in 1990. Error bars are 95% confidence intervals on the standardized (unweighted) rates per capita. Data are included from the following countries of eastern Europe: Albania, Armenia, Belarus, Croatia, Estonia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Poland, Romania, Russian Federation, Slovakia, Slovenia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, and Yugoslavia. African countries included are Botswana, Central African Republic, Côte d'Ivoire, Democratic Republic of the Congo, Kenya, Lesotho, Malawi, Uganda, United Republic of Tanzania, Zambia, and Zimbabwe.

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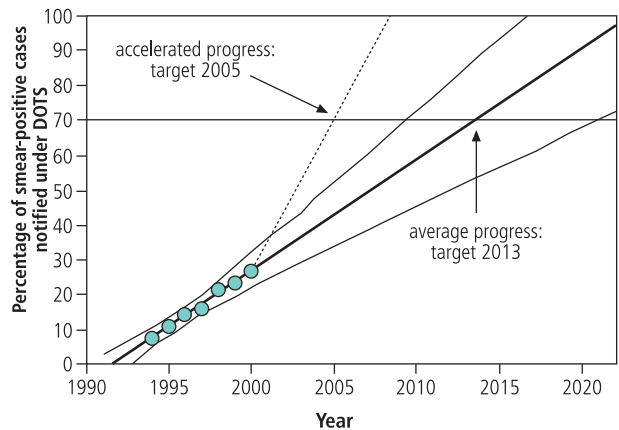
Because the overall detection rate of smear-positive cases is low (40%), DOTS programmes are expected to find patients that would not otherwise have been notified (outside DOTS areas) — i.e. we expect to see more patients added to DOTS programmes than have been added to or subtracted from non-DOTS programmes. However, data for 68 countries showed that, by and large, the gain in the number of cases in DOTS areas (138 000 smear-positive cases) was about the same as the loss from non-DOTS areas (137 000).

Improving case detection while maintaining high cure rates

Fig. 4 summarizes the most recent changes in both case detection and cure rates in the 22 high-burden countries; the arrows depicting progress are typically short. Of the 22, only Viet Nam had reached the targets for case detection and cure by the end of year 2000.

Case detection and treatment success rates under DOTS exceeded 50% and 70%, respectively, in 48 of 139 countries (35%) that provided data on both indicators. These countries appear to have reached or are close to reaching the WHO targets, but together they accounted for only 12% of all estimated TB cases in 2000. Apart from Viet Nam, the

Fig. 2. Progress towards the target of 70% case detection



Points mark the number of smear-positive cases notified under DOTS in 1994–2000, expressed as a percentage of all estimated smear-positive cases for each year. The heavy line through these points indicates the current average annual increment of about 130 000 new cases, which intersects the target (horizontal line) in the year 2013. Back projection intersects the x-axis around 1991, shortly after DOTS was launched. Upper and lower 95% confidence intervals (light lines) allow for error in the estimated incidence (the denominator of the case detection rate) as well as error around the regression line. The steeper dashed line represents a higher annual increment of approximately 330 000 cases from 2000 onwards, and reaches the 70% target by 2005.

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countries that appear to have met the WHO targets in 2000 include Cuba, Malaysia, the Maldives, and Nicaragua.

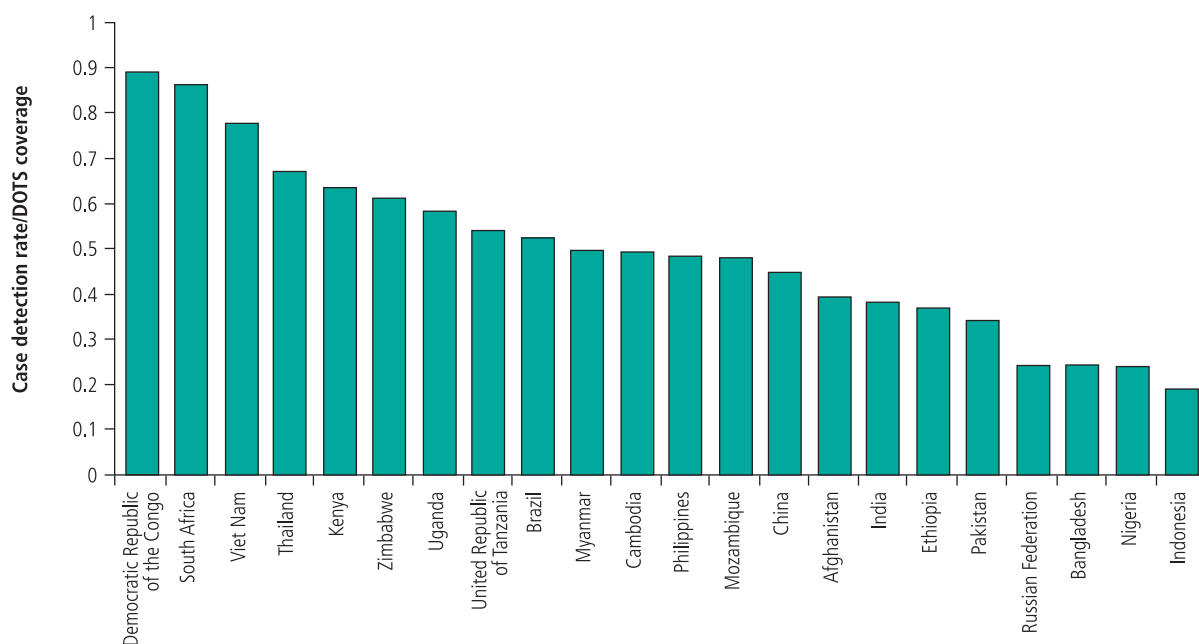
Of 113 countries that provided data for both 1998 and 1999 cohorts, 61 (54%) showed higher treatment success rates for the 1999 cohort. Between 1999 and 2000, only 24 (21%) improved case detection under DOTS by more than 1% while maintaining treatment success above 70%.

Discussion

Between 1999 and 2000, global TB control continued along the steady but slow path traced since 1994. At the current rate of recruitment of new smear-positive cases, the target of 70% case detection under DOTS will not be reached until 2013 (range: 2009–21) (Fig. 2). Since 1994, DOTS programmes have been reporting an average of 133 000 additional smear-positive cases each year; to reach 70% case detection by 2005, they need to find 330 000 extra smear-positive cases annually. To reach the target case detection rate, national TB control programmes must collectively find a way to recruit patients from among the 60% that are never notified. Based on recent improvements in case finding and on progress in planning and financing (3), the biggest advances during 2002 are expected in Cambodia, China, India, Myanmar, Pakistan, Philippines, and Uganda. Cure rates are not yet high enough in all DOTS programmes, but the main challenge in TB control is to markedly accelerate case finding under DOTS in the high-burden countries.

Both mathematical modelling and practical experience suggest that the TB incidence rate will decline at 5–10% per year in areas of low HIV prevalence, if case detection and cure rates exceed 70% and 85%, respectively (18). At a decline of 7% per year, the incidence rate would be halved in 10 years; this is approximately the rate of decline seen in Peru since 1992 (19) (Fig. 5). TB prevalence and deaths can be forced down more quickly than incidence (20). Consequently, the agreed international targets for implementation (case detection and cure) and impact (prevalence and deaths) are roughly consistent, provided the prevalence of HIV infection remains low. Thus, by reaching

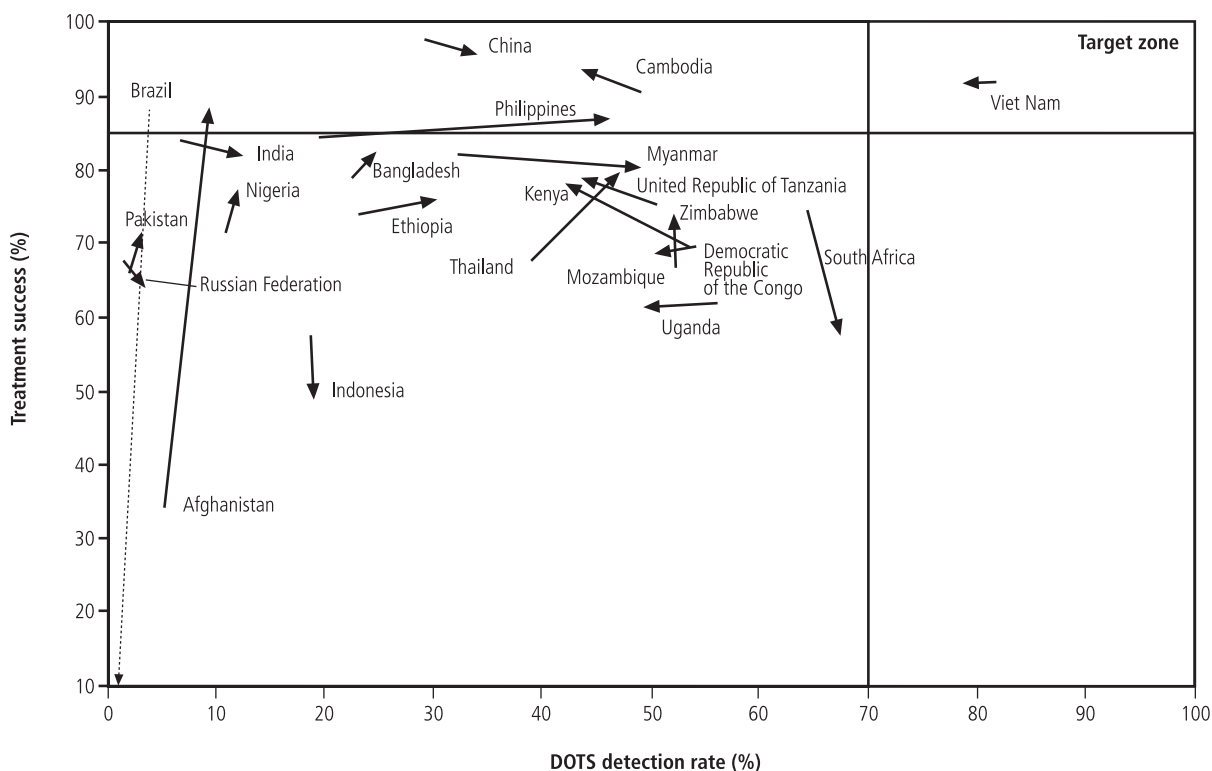
Fig. 3. Ratio of the smear-positive case detection rate under DOTS to DOTS population coverage in the 22 high-burden countries



Ideally, this ratio will be close to 1. DOTS coverage is the estimated fraction of the population living in parts of a country with DOTS services.

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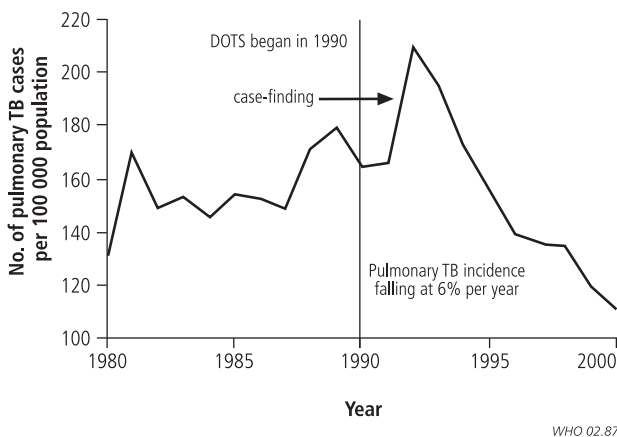
Fig. 4. DOTS progress in the high-burden countries, 1999–2000



Treatment success refers to cohorts of patients registered in 1998 or 1999, and evaluated by the end of 1999 or 2000, respectively. DOTS detection rate is the fraction of estimated smear-positive cases notified under DOTS in 1999–2000. Arrows mark progress in countries that supplied notification and cohort data for two years. For Mozambique the start of the arrow is 1998 notifications and treatment success for the 1997 cohort. Treatment success plunged in Brazil because the outcome was not evaluated for a large fraction of patients. Countries should enter the graph at top left, and proceed rightwards to the target zone in the upper right quadrant bounded by 70% case detection and 85% treatment success.

WHO 02.86

Fig. 5. Notified pulmonary tuberculosis (TB) cases per 100 000 population, Peru, 1980–2000



WHO 02.87

70% case detection and 85% cure by 2005, countries could indeed halve prevalence and deaths by 2010.

It will be significantly more difficult, if not impossible, to reach these impact targets in countries that are suffering large epidemics of HIV/AIDS (Fig. 1, lower panel), even with high rates of case detection and cure (18, 20–22). It may be possible in these countries to halve, by the year 2010, the number of TB deaths in the HIV-uninfected population (23). But this requires further proof of principle and better survey or surveillance methods for monitoring TB deaths in those African countries suffering most from the spread of HIV/AIDS. ■

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Conflicts of interest: none declared.

Résumé

Trop peu de malades ont accès à un schéma thérapeutique d'efficacité éprouvée : un défi pour la lutte internationale contre la tuberculose

Objectif Déterminer l'ampleur du problème auquel est confronté le Partenariat Halte à la tuberculose en mesurant l'écart existant entre les pourcentages actuels de cas dépistés et de succès thérapeutiques et les objectifs mondiaux (70 % et 85 % respectivement) qui devaient être atteints d'ici à 2005 dans le cadre de la stratégie DOTS de l'OMS.

Méthodes Nous avons analysé les cas notifiés annuellement à l'OMS par jusqu'à 202 (sur 210) pays et territoires entre 1980 et 2000, ainsi que les résultats du traitement pour les patients enregistrés entre 1994 et 1999.

Résultats Pour beaucoup des 148 programmes DOTS nationaux qui étaient en cours à la fin de l'an 2000, on constate que les taux de succès thérapeutiques sont élevés, avoisinant ou dépassant l'objectif de 85 %. Toutefois, nous estimons que seulement 27 % de l'ensemble des nouveaux cas à frottis positif dépistés en 2000 ont été notifiés dans le cadre d'un programme

DOTS, et que 19 % seulement du total ont été traités avec succès. La progression du dépistage a été régulière, avec environ 133 000 cas positifs additionnels dépistés chaque année depuis 1994. Entre 1999 et 2000, plus de la moitié des cas supplémentaires notifiés dans le cadre d'un programme DOTS ont été enregistrés en Inde, aux Philippines, en Ethiopie, en Afrique du Sud et au Myanmar.

Conclusion Avec le taux actuel de progression des programmes DOTS, l'objectif de 70 % de cas dépistés ne sera pas atteint avant 2013. Pour atteindre cet objectif d'ici à 2005, 333 000 cas supplémentaires devraient être dépistés chaque année dans le cadre de programmes DOTS. Le défi est aujourd'hui de montrer que le développement des programmes DOTS dans les principaux pays d'endémie peut permettre d'accélérer sensiblement le dépistage des cas de tuberculose tout en maintenant des pourcentages élevés de succès thérapeutiques.

Resumen

Acceso escaso a una terapia altamente eficaz: desafío para la lucha internacional contra la tuberculosis

Objetivo Determinar las dimensiones de la carga de tuberculosis a que ha de hacer frente la alianza internacional Alto a la Tuberculosis, midiendo para ello la divergencia existente entre las tasas actuales de detección de casos y de tratamiento satisfactorio y las metas mundiales (70 % y 85 %, respectivamente) que deben alcanzarse para 2005 a tenor de la estrategia DOTS de la OMS.

Métodos Analizamos los casos notificados anualmente a la OMS por 202 (de 210) países y territorios entre 1980 y 2000, así como los resultados del tratamiento de pacientes registrados entre 1994 y 1999.

Resultados Muchos de los 148 programas nacionales de DOTS en vigor a finales de 2000 han demostrado que pueden conseguir altas tasas de éxito terapéutico, próximas o superiores a la meta del 85 %. Sin embargo, estimamos que sólo un 27 % de los casos nuevos con frotis positivo que se dieron en 2000 fueron notificados

en el marco de la DOTS, y que sólo el 19 % fueron tratados satisfactoriamente. El aumento de la detección de casos ha sido constante, y puede cifrarse en unos 133 000 casos adicionales con frotis positivo cada año desde 1994. En el periodo 1999-2000, más de la mitad de los casos adicionales notificados en el marco de la DOTS correspondían a la India, Filipinas, Etiopía, Sudáfrica y Myanmar.

Conclusión De mantenerse el actual ritmo de expansión de la DOTS, la meta de detectar el 70 % de los casos no se alcanzará hasta 2013. Si se desea alcanzar esa meta para 2005, los programas basados en el tratamiento DOTS deberán detectar 333 000 casos adicionales cada año. El desafío consiste ahora en demostrar que la expansión de la DOTS en los principales países endémicos permitirá acelerar sensiblemente la detección de casos manteniendo al mismo tiempo unas tasas altas de curación.

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