National Tuberculosis Programme Managers’ Meeting

Sinaia, Romania
27-28 September 2004
ABSTRACT

The WHO European Region confronts critically important challenges. Across the Region the challenges are multiple and varied. To the east, rates of HIV (and HIV-associated tuberculosis) and multidrug-resistant tuberculosis (MDR-TB) are climbing, health systems remain frail, surveillance and laboratory services are underresourced, and in places political commitment is inadequate. To the west, TB in marginalized populations, such as migrant populations and the elderly, represents a challenge. In addition, political commitment to Directly Observed Treatment, Short-course (DOTS) remains low in some countries. As a Region, Europe is struggling to increase its TB treatment success rates above 75%, despite the DOTS strategy being adopted by a large number of countries over the past decade, and it is therefore some way from achieving the World Health Assembly (WHA) target of 85% success. Although case detection rates across the Region remain inadequate and only 40% of the population currently have access to the DOTS strategy, substantial regional variations exist. If the Millennium Development Goals (MDG) and the WHA targets that pertain to TB are to be achieved, the breadth and depth of DOTS coverage across the Region and within countries needs to be expanded. The principal public health challenge that lies ahead is to operationalize effective strategies and integrate MDR-TB and HIV control programmes into a DOTS framework that meets European needs.

Keywords

TUBERCULOSIS, PULMONARY – drug therapy – prevention and control
TUBERCULOSIS, MULTI-DRUG RESISTANT – drug therapy – prevention and control
NATIONAL HEALTH PROGRAMS
HEALTH POLICY
DIRECTLY OBSERVED THERAPY
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<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>AIDS</td>
<td>Acquired Immunodeficiency Syndrome</td>
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<tr>
<td>ARI</td>
<td>Acute Respiratory Infection</td>
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<td>ART</td>
<td>Antiretroviral Therapy</td>
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<td>DOT</td>
<td>Directly Observed Treatment</td>
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<td>DOTS</td>
<td>Directly Observed Treatment, Short-course</td>
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<td>DST</td>
<td>Drug Sensitivity Testing</td>
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<td>GDF</td>
<td>Global Drug Facility</td>
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<td>GFATM</td>
<td>Global Fund to Fight AIDS, Tuberculosis and Malaria</td>
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<td>GLC</td>
<td>Green Light Committee</td>
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<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
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<td>HR</td>
<td>Human Resources</td>
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<td>IDU</td>
<td>Injecting Drug User</td>
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<td>MDG</td>
<td>Millennium Development Goals</td>
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<td>MDR-TB</td>
<td>Multidrug-resistant Tuberculosis</td>
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<td>NAP</td>
<td>National AIDS Programme</td>
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<td>NTP</td>
<td>National Tuberculosis Programme</td>
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<td>PAL</td>
<td>Practical Approach to Lung Health</td>
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<tr>
<td>PHC</td>
<td>Primary Health Care</td>
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<td>TB</td>
<td>Tuberculosis</td>
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<td>WHA</td>
<td>World Health Assembly</td>
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Introduction and objectives of the meeting

The European Region is facing particular public health challenges in the arena of tuberculosis (TB) control. Since the break-up of the former Soviet Union, rates of TB have climbed in many areas. In addition, the public health challenge of multidrug-resistant tuberculosis (MDR-TB) and the relatively recent epidemic of HIV challenge TB control programmes. Many factors are responsible, including social, political and economic upheavals and harsh criminal justice systems. Public health systems are struggling to meet these new challenges. Political commitment, supported by the international community through a variety of institutions and agencies, is addressing these challenges, however, with renewed vigour. Priority is being given to reform of surveillance systems, laboratory capacity development and quality assurance systems, and support of measures to ensure and monitor treatment adherence and clinical outcomes. Integrated systems to control and manage HIV-associated TB and MDR-TB remain in their infancy in many countries. In western Europe, most of the elements of the DOTS strategy are in place; however, some countries have still not implemented treatment outcome monitoring. Populations most at risk of TB in the affluent west are those living on the margins, including the homeless, injecting drug users (IDU), the elderly and migrant populations.

The renewed energy and enthusiasm being expended on TB control in Europe should assist the meeting of targets on TB framed within the Millennium Development Goals (MDG) and the World Health Assembly (WHA) targets.

In May 2000, the WHA adopted two global targets for TB control:

• to detect 70% of infectious cases by 2005
• to treat successfully 85% of those detected by 2005.

The MDG, to be achieved by 2015, are to:

1. eradicate extreme poverty and hunger
2. achieve universal primary education
3. promote gender equality and empower women
4. reduce child mortality
5. improve maternal health
6. combat HIV and AIDS, malaria and other diseases
7. ensure environmental sustainability
8. develop a global partnership for development.

Thus, Goal 6 relates to TB. Within this goal two indicators are important in relation to TB:

• Indicator 23: Prevalence and death rates associated with TB (all forms, excluding HIV-infected: halved with respect to 2000 by 2015);
• Indicator 24: Proportion of (smear-positive) TB cases detected and (proportion of treated cases) cured under DOTS (70% and 85% respectively by 2005).

Over the past 10 years, National TB Programme (NTP) Managers’ meetings have been held biannually and this meeting in Sinaia represents the 10th anniversary of the first NTP meeting
held in Warsaw, Poland, in June 1994. At this first meeting representatives of 25 countries from central and eastern Europe and the former USSR adopted a five-point policy package for TB control, and some countries requested WHO’s assistance in implementing the first DOTS pilot projects in the Region.

The DOTS strategy includes the following five elements:

- government commitment to supporting the national TB programme;
- case detection through bacteriological examination of sputum smear and culture in suspects presenting with symptoms to health services;
- standardized short-course chemotherapy for at least all smear-positive TB cases under proper case management conditions;
- regular, uninterrupted supply of all essential anti-TB drugs;
- monitoring system for programme supervision and evaluation.

At the second meeting held in 1996, also in Poland, a priority plan of action for the enhancement of DOTS implementation was developed. DOTS projects were expanded with attention to advocacy and high-risk groups. The need for further cost-effectiveness analyses of previous TB control policies as opposed to DOTS was highlighted, as was the need for guidelines regarding prisons and prisoners.

The third meeting was held in 1998 in Issyk-Kul, Kyrgyzstan, and was attended by NTP Managers from central Asia, the Caucasus and the Russian Federation. At this meeting the progress in DOTS implementation in the central Asian republics, the Caucasus and the Russian Federation was reviewed.

The fourth NTP Managers’ meeting took place in Helsinki, Finland, in 2000 and was co-hosted by FILHA and the WHO Regional Office for Europe. During this meeting the progress achieved in DOTS implementation was reviewed. Among the 27 countries of central and eastern Europe, only four had not adopted DOTS in principle, while seven countries were fully implementing DOTS. Ten recommendations were agreed at this meeting. Among these was the recognition that national TB programmes needed to be strengthened, there was a need to adopt internationally recognized TB control strategies and accelerate implementation, TB services should be integrated into wider health systems, and drug supplies should be centralized, maintained and quality assured. With regard to MDR-TB, it was agreed that the first priority from a public health perspective was prevention of MDR-TB through an effective and comprehensive TB programme. The implementation of MDR-TB programmes should only be considered in areas where NTPs were fully functioning. Support from international partnerships and collaboration were recognized as essential components in the improvement of TB programmes in a number of countries of the WHO European Region.

The fifth NTP Managers’ meeting, held in Wolfeheze, Netherlands, in June 2002 and co-hosted by KNCV, made seven recommendations. In addition to reiterating several of the recommendations of the Helsinki NTP meeting, these included: Health sector reform was required to reorient TB control programmes, so that delivery of services was gradually decentralized and integrated within the primary health care (PHC) system (while taking into account country-specific needs); TB control in prisons should be integrated within national TB programmes; cost-effectiveness and cost-benefit analyses should inform use of scarce resources.
in TB control; strong public health system links were needed between HIV and TB programmes; and expansion of DOTS should be accelerated.

The overall objective of the sixth meeting, held in Sinaia, Romania, in September 2004 was to discuss the implementation of the “DOTS Expansion Plan to Stop TB in the WHO European Region 2002-2006” in order to reach the WHA targets by 2005.

The specific objectives of the meeting were to:
- discuss the current TB situation in the WHO European Region;
- assess the progress made in TB control, with particular emphasis on the global TB control targets to be reached by 2005;
- identify the successes and constraints to the implementation of the “DOTS Expansion Plan” and to formulate priority actions in order to achieve the WHA targets by 2005;
- assess the progress made in implementation of DOTS-Plus and TB/HIV activities.

**Summary of the global and European TB situation**

TB was declared a Global Emergency by WHO in 1993. Since then, case notification rates in many parts of the world have continued to climb. In Sub-Saharan Africa this increase is most pronounced, driven epidemiologically in particular by HIV (Figure 1).

![Figure 1: Global TB notification rates](image)

Across the European Region, annual TB notifications have continued to increase since the early 1990s. In 2002, 373,497 cases were notified. Indeed, if TB notification rates had stabilized at 1991 rates, several hundred thousand cases of TB would have been averted.
The greatest increase in case notifications has occurred in the countries of the former Soviet Union (Figure 2), and this area represents a profound public health challenge, not least because of the co-existence of high rates of MDR-TB and an expanding HIV epidemic initially focused on IDUs, but now expanding through link populations, such as commercial sex workers, to the wider population. Moreover, the stabilization of TB case notification rates in some countries over the past few years remains a fragile achievement.

The challenge of drug-resistant and MDR-TB is particularly pronounced in the European Region; overall the drug resistance and MDR-TB rates are the highest of any Region in the world. Moreover, within the European Region, there is wide variation. In the eastern subregion MDR-TB rates in new cases and previously treated cases are substantially higher than in central and western subregions (Figures 3 and 4).
Since surveillance systems and determination of drug resistance profiles are weak in some settings (especially former Soviet Union countries), the epidemiological scope of MDR-TB in the Region is difficult to gauge with accuracy. Much of our understanding has relied upon surveys and attempts to extrapolate from unrepresentative samples (Figure 5). Attempts to remedy this are being conducted, so that policy responses to MDR-TB may be better informed and monitored.
In the European Region, geographically the epidemiological pattern of TB is mirrored in HIV prevalence with relatively high rates in the east in comparison to central and western Europe (Figure 6). Furthermore, the true magnitude of the HIV epidemic in much of eastern Europe is uncertain because surveillance systems (for TB, drug-resistant TB, and HIV-associated TB) remain underresourced.

Currently, the HIV epidemic is concentrated in young adults, in particular men. Populations especially at risk of HIV infection are IDUs, ethnic minorities, prisoners and those exposed to the criminal justice system, and sex workers. In eastern Europe HIV transmission is especially associated with injecting drug use (Figure 7); up to 30% of HIV-infected females are IDUs, and 50% are partners of IDUs. Parallels with the TB epidemiological picture can, therefore, be drawn: as for TB, HIV in the east of the Region is affecting especially young adult males; in the west of the Region, HIV is prevalent in prisoners and migrant populations.
Although some uncertainties exist in surveillance data for TB/HIV co-infection, current estimates suggest that the number of cases of TB attributable to HIV infection and the number of TB deaths attributable to HIV remain limited in comparison to other Regions (Figure 8). This probably reflects in part the relative immaturity of the HIV epidemic in eastern Europe. Surveillance capacity to provide information on TB cases co-infected with HIV, and HIV cases developing TB, needs to be strengthened to provide greater clarity and support control.

Several critically important operational challenges related to TB, MDR-TB and TB/HIV exist in the European Region:

1. **DOTS population coverage**
   
The DOTS strategy aims to achieve the goal of detecting at least 70% of existing cases and curing 85% of infectious cases detected. In 1995, before WHO started to actively promote sound TB control in the Region, only six out of 51 countries were using DOTS. By 2002, 41 countries had adopted DOTS (Figure 9). By 2003, however, population coverage in the Region was only 41%, the lowest of the WHO Regions (population coverage globally is 77%). Moreover, although the DOTS strategy may have been formally adopted, the quality of implementation is variable, use of nonstandardized treatment schedules still occurs, and outcome monitoring is inconsistent in places.

![Figure 9: DOTS implementation in the WHO European Region](image)

2. **Detection of smear-positive cases under DOTS**
   
The goal of detecting 70% of new smear-positive cases is proving challenging. By 2002, only an estimated 39% of new smear-positive cases were detected, and of these just over half were detected within the DOTS strategy. By 2003, only an estimated 22% of cases of new smear-positive TB were detected under the DOTS strategy in the European Region in comparison to 44% globally. Since 1999, case detection rates have remained approximately the same in the Region. However, the proportion of cases detected under the DOTS strategy is increasing (Figure 10). The reasons for this are varied, but include inadequate political commitment and insufficient engagement between TB services and PHC services.

![Figure 10: Case detection rates](image)
3. Treatment successes under DOTS

The goal of reaching treatment success of 85% by 2005 is also proving challenging. Treatment success rates under the DOTS strategy have levelled off since 1997 at approximately 75% (Figure 11). There are several reasons for this, including insufficient political commitment, persistent fractures between prison and civilian health services in some settings, inadequate patient management, default from treatment as a consequence of alcohol abuse, MDR-TB, the complex needs of some populations, and deaths both from and with (but not from) TB in elderly populations. Currently, the benefits of the DOTS strategy in averted deaths from TB are marginal because population coverage is inadequate. If coverage increased to the target of 70%, estimates of averted deaths would increase substantially, and when the impact on transmission dynamics is factored in, the impact on avoided mortality is greater still. If TB patients access care, but care is of poor quality, then this may have a number of consequences, including a reduction in mortality, but an increase in the prevalence of disease (and perhaps as a result, a failure to meet the MDG targets on TB prevalence) and increased transmission of drug-resistant TB.

![Figure 11: Treatment success rates](image)

4. MDR-TB

With some of the highest rates of MDR-TB in the world, several countries (for example some regions of the Russian Federation, the Baltic states, Kazakhstan and Uzbekistan) within the European Region face the particular problem of MDR-TB. However, the real scope of the problem is unknown, as surveys have not been performed in many countries. Specific challenges include inadequate laboratory capacity for culture and drug sensitivity (DST) determination, complex treatment schedules, lengthy treatment periods, management of drug side-effects, the complex social needs of many patients, and the need for reliable and robust drug procurement and management systems. Overarching these challenges is the need for policy-makers to balance the need to respond to an emerging and urgent public health threat of profound importance with the need to ensure capacity to implement DOTS (and other high priority health policies), so that implementation of DOTS-Plus does not detract from or weaken other important public health programmes.

The Green Light Committee (GLC), Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), and the Global Drug Facility (GDF) are three institutions lending support to meeting these challenges. Over recent years, DOTS-Plus programmes have progressed from a pilot phase to an expansion phase with the result that, in places, DOTS-Plus is integrated within existing DOTS programmes. Moreover, DOTS-Plus programmes are no longer limited to ‘hot spots’. Applications from, and approvals given to, WHO-GLC DOTS-Plus programmes are shown in Figure 12. By September 2004, more than 3000 patients had been enrolled and 1100 patients had completed treatment under DOTS-Plus programmes. The first five DOTS-Plus pilot projects
assessed use individualized treatment regimens, and treatment successes range from 61% to 82%.

Figure 12: WHO-GLC DOTS-Plus projects by August 2004

5. **TB/HIV**

The epidemiological linkages between TB and HIV demand coherent policy responses. Recognizing the urgency of this, GFATM is supporting programmatic strengthening of TB, HIV and TB/HIV control programmes in line with guidance provided through WHO (Figure 13). Furthermore, financial support to TB/HIV programmes is currently being provided for several pilots throughout the Region by multilateral and bilateral donors. Coordination of these efforts will be an important issue, if maximum benefit is to be gained. Knowledge of the overlap of TB and HIV epidemics is frail. Surveillance needs to be strengthened considerably.

Figure 13: TB/HIV: priority countries for intervention

<table>
<thead>
<tr>
<th>Priority for preventing and controlling HIV/AIDS</th>
<th>High</th>
<th>Intermediate</th>
<th>Low</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Romania, Tajikistan, Uzbekistan</strong></td>
<td><strong>Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Romania, Tajikistan, Uzbekistan</strong></td>
<td><strong>Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Romania, Tajikistan, Uzbekistan</strong></td>
<td><strong>Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Romania, Tajikistan, Uzbekistan</strong></td>
</tr>
<tr>
<td><strong>Andorra, Austria, Belgium, Cyprus, Czech Republic, Denmark, Finland, Germany, Greece, Iceland, Ireland, Israel, Luxembourg, Malta, Monaco, Netherlands, Norway, San Marino, Slovakia, Slovenia, Sweden, Switzerland</strong></td>
<td><strong>Albania, Bosnia &amp; Herzegovina, Bulgaria, Croatia, Hungary, Macedonia, Serbia &amp; Montenegro (Serbia), Serbia &amp; Montenegro (Kosovo)</strong></td>
<td><strong>Turkmenistan</strong></td>
<td><strong>Turkmenistan</strong></td>
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<tr>
<th>Priority for controlling TB</th>
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<tbody>
<tr>
<td>Low</td>
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<tr>
<td>Intermediate</td>
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<tr>
<td>High</td>
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Estimates of the need for antiretroviral (ART) drugs for people infected with HIV illustrate the magnitude of the challenge ahead in controlling HIV in the Region. While the 3 by 5 Initiative will go some substantial way to addressing the issue, there remains a significant shortfall, particularly in the eastern part of the Region, between the numbers needing ART treatment and the numbers likely to be able to access treatment (Figure 14). This will probably have implications for TB control in the future. Several important WHO documents, including the “European framework to decrease the burden of TB/HIV”, support and guide control efforts in the Region.

Figure 14: People in need of ART in EUR (estimated September 2004)

<table>
<thead>
<tr>
<th></th>
<th>PLWHA in 2004</th>
<th>Need ART in 2004</th>
<th>Receive ART in 2004</th>
<th>Need ART in 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>West</td>
<td>674 000</td>
<td>330 000</td>
<td>267 000</td>
<td>340–380 000</td>
</tr>
<tr>
<td>Centre</td>
<td>49 000</td>
<td>13 500</td>
<td>9 300</td>
<td>12–20 000</td>
</tr>
<tr>
<td>East</td>
<td>1 222 000</td>
<td>105 000</td>
<td>3 900</td>
<td>230–600 000</td>
</tr>
<tr>
<td>Total</td>
<td>1 945 000</td>
<td>448 500</td>
<td>280 200</td>
<td>582–1 000 000</td>
</tr>
</tbody>
</table>

3 by 5 target in EUR: 100 000 new patients on ART

6. Human resources

The lack of adequate and sufficient human resources (HR) is an overarching constraint to all the operational challenges described above. HR constitute all those individuals who make individual and public health interventions happen; without sufficient, adequately trained, motivated, skilled and readily available health care staff, it will not be possible to increase DOTS population coverage and to achieve the global TB control targets.

The European Region has one of the highest densities of doctors and nurses per population (Figure 15); however, these data are incomplete and there is no information on the staff that are actively working in health care or the actual distribution of staff (private versus public health care and internal and external migration).
The triple threat posed by the HIV/AIDS epidemic on HR by increasing the workload and demands on health systems, generating a risk of infection, disease and death, and stigmatizing carers, has had a devastating effect on the availability of health care staff in some regions. For many years HR issues have been profoundly neglected by policy-makers, health managers and planners, and as a result there is insufficient HR planning and managing of capacity in health care systems. Moreover, HR development has been persistently misunderstood and perceived as simply training. Donors, along with technical and other partners, have put too much emphasis on the organization of training courses and numbers of trained staff. This has been to the detriment of the development of coherent, comprehensive HR development strategies. Globalization brings opportunities and threats to health systems and it is likely that migration of health care staff will increase, unless a comprehensive HR strategy (or coherent strategies) addresses the issue of staff retention at national level.

A fundamental shift in our approach to HR for TB control is needed. TB control programme managers and technical partners need to make the HR implications of current and future interventions explicit, so that planners and policy-makers are made aware of the dimension of the HR crisis. The challenge is not to identify what needs to be done, but how the TB community and its partners will be able to integrate HR issues into technical support to programmes at specific country level.

7. **Practical Approach to Lung Health (PAL) strategy**

In response to the challenges to reaching the global TB control targets by 2005 and in order to ensure the wide involvement of health professionals in TB, WHO suggests strengthening DOTS implementation with the Practical Approach to Lung Health (PAL) strategy.

The WHO survey on respiratory care at PHC facilities in nine countries demonstrated that about 20-30% of patients above five years of age visit PHC facilities with respiratory symptoms. Approximately 5-10% are identified as possible cases of TB, 80% have acute respiratory infections (ARI), and 10-15% have chronic obstructive pulmonary disease. There is a lack of standard procedures to identify and manage respiratory disorders at PHC level, including the examination of possible TB cases, a lack of clear criteria for referral and counter-referral between health care levels in health systems, and overprescription of antibiotics.

The PAL strategy is a syndromic approach to the management of patients who attend PHC with respiratory symptoms. It focuses on four priority respiratory diseases among patients aged five years or more: TB, ARI (in particular pneumonia), asthma, and chronic obstructive pulmonary disease.

The objectives of PAL are to improve the quality of respiratory care management for the individual patient; to improve the efficiency of respiratory care within health systems; to improve TB case detection and care through improvements in respiratory care; to standardize respiratory case management through the development of clinical practice guidelines; and to ensure coordination among different levels of health care, as well as between TB control programmes and general health care services.

It is expected that successfully implemented PAL would help to secure and empower TB control in changing health systems; facilitate integration of TB control in PHC; improve TB case detection and the quality of TB diagnosis; provide information on TB detection within PHC services; assist national health authorities with health sector reform; provide integrated health
care to more than 20% of patients in PHC; improve the referral system for respiratory conditions and TB; improve planning and health resource management; improve health management information systems; strengthen PHC and improve the competence of PHC workers; reduce prescriptions of drugs, especially antibiotics; and promote patient education on lung health.

Currently, there are 14 countries globally involved in PAL implementation, coordinated by WHO HQ. In the WHO European Region there are two PAL pilot projects in Kyrgyzstan and Estonia. The first data from pilot projects suggest that PAL is having a positive impact by enhancing TB detection and through the appropriate use of antibiotics at PHC level.

In 2004-2005, WHO EURO, in cooperation with WHO HQ, plans to support the implementation of the national PAL strategy in Kyrgyzstan and to continue with the implementation of the pilot project in Estonia. A regional workshop on PAL will be organized in 2005 for selected interested countries. Pilot projects in two more countries of the Region will be initiated. Summing up the results of the pilot projects and developing the regional PAL strategy will facilitate the formulation of a regional PAL strategy, which will be presented at the NTP meeting in 2006.

National Programme Managers’ reports on DOTS implementation in Europe

Romania

Following a preparatory phase in 1997, DOTS implementation is now in a consolidation phase with 54% of the population presently covered and, it is anticipated, all of the country covered by the end of 2005. The case detection rate for new smear-positive cases is 72% (of the target), including 41% from DOTS areas. The notification rate for 2003 represented an incidence rate of 135.7 per 100 000 population, a similar rate to the two previous years. Men aged 45-59 years have the highest incidence rates, i.e. greater than 350 per 100 000 population. The notification rate in children has increased in recent years, but this is thought to be mainly due to overdiagnosis and artefact. Challenges include the persistent use of individualized treatment regimens on occasion and the hurdles faced in extending directly observed treatment (DOT) beyond the intensive phase of treatment. Political commitment is high. Laboratory restructuring is ongoing and the network will be evaluated in October 2004. The treatment success rate for new smear-positive patients was 73.4% in the 2002 cohort. Preliminary data presented from a June 2003 drug resistance survey suggested MDR-TB prevalence of 0.6% in new patients and 8% in previously treated cases. Data on TB/HIV are uncertain, but coordination between the NTP and the National AIDS Programme (NAP) is ongoing, and a new protocol became effective in the early summer of 2004. GFATM funds will be used to implement the WHO technical recommendations in a number of areas, including improvement of human resources and training of different categories of health staff, support for TB/HIV control, development of improved recording and reporting systems, and a DOTS-Plus project to treat MDR-TB patients. TB in prisons is being addressed actively; particular attention is being paid to the large number of smear-negative patients being diagnosed in some settings.

Slovenia

Slovenia, with 330 notified cases of TB in 2003, has a notification rate of 15 per 100 000 population. The highest incidence rates occur in the elderly of both sexes. There is no drug
resistance problem. In 2002 and 2003 one patient each year was diagnosed with MDR-TB. Standard four-drug treatment regimens are used in initial treatment in approaching 75% of patients in 2003 compared to 35% in 1997. Since 1998, treatment successes have consistently been around 85%. There is a problem with achieving high cure rates mainly in patients older than 85 years, and this is often because patients die with TB rather than from TB.

**Russian Federation**

In 2003, the incidence of TB in the Russian Federation was 83 per 100,000 population, a decline from 86 per 100,000 population in 2002. Mortality rates for 2002 and 2003 remain similar at 22 per 100,000 population. Across the Federation’s regions, incidence rates varied from 41 to 268 per 100,000. Cumulatively, 274,313 cases of HIV had been notified by 2003 (UNAIDS have estimated considerably higher case numbers). In 2003, 3,133 cumulative cases of HIV-associated TB were notified. Substantial funds have been allocated to support TB control activities over the past four years, and political commitment, represented by these funds and by the issuance of important federal orders on TB control, means that challenges are being addressed. Specifically, Order No. 109 of 21 March 2003, “On Improvement of TB Control Activities in the Russian Federation”, supports capacity development in laboratories, ensures treatment standards are concordant with internationally recommended standards, and enables follow-up management to be standardized. Order No. 50 of 13 February 2004, “On Introduction of Recording and Reporting Documentation in TB Monitoring”, supports recording and reporting, and ensures cohort analysis and quality assured TB detection and treatment in compliance with international standards. It is anticipated that the whole country will be participating in cohort analysis of treatment outcomes by 2005.

Particular challenges to TB control highlighted included the impact of the ongoing reform of public health care administration systems (with ministerial restructuring taking place in the summer of 2004), MDR-TB control and the HIV epidemic and growing linkage with TB, and frail microbiology laboratory systems. Human resource capacity building is an issue. The TB service is also facing difficulties in recruiting young people to work in the service allied to an ageing professional population, many of whom are nearing retirement.

**France**

The report from N.E. Paris, France, highlighted a number of challenges. Delivery of a coordinated national TB plan with cohort analysis and a determination of annual expenditure is problematic. The bureaucracy that aims to support TB control measures is complex and erroneous, and delayed notification occurs. The DOTS strategy has not been implemented nationally yet, and service delivery is provided by several different medical disciplines, including infectious diseases experts, respiratory physicians and internal medicine specialists, so that the potential to depart from standard, internationally recognized approaches to control exists. Cohort analysis of clinical outcomes to treatment is not systematized and knowledge of this is based largely on retrospective research. However, the development and implementation of computer software to support recording and reporting across a number of pilot sites since 1996 has been a significant advance. Results from an analysis of 956 patients were presented, suggesting that impressive potential benefits could be gained by patients in terms of clinical outcomes. TB is a particular problem among migrant populations, those living in ‘collective’ housing and those with inadequate health insurance coverage.
Summary of working group discussions

DOTS expansion and maintenance of quality of DOTS

DOTS remains in pilot stages in several countries (for example, France, Ukraine, Croatia) and population coverage varies considerably in other countries. Challenges, most notably in eastern Europe, include decentralized services, erratic drug supplies, inadequate health insurance coverage, and insufficient engagement with PHC services. In the west, challenges arise from the decentralized nature of services and the role of the private sector.

Laboratory performance and quality control

Challenges are principally felt by low-income, high-burden countries. Networks of quality assured laboratories that perform smear microscopy need to be developed rationally. Building upon this, networks of laboratories that perform culture and DST need support. Consideration needs to be given to the use of advanced technologies, such as rapid culture and DST determination. Substantial problems exist in many countries in terms of human resources, financial support, technical training and application, and infrastructure.

MDR-TB and DOTS-Plus

Current status of DOTS-Plus projects across the Region was reviewed.

Approved & active GLC projects:
- Estonia
- Latvia
- Russian Federation – four oblasts
- Uzbekistan/Karakalpakstan.

Approved GLC projects:
- Romania
- Kyrgyzstan.

Applications to the GLC:
- Georgia – prisons
- Azerbaijan – prisons
- Moldova.

Non-GLC approved:
- Poland
- Kazakhstan.

Constraints to the preparation of DOTS-Plus projects were discussed and include insufficient or inadequate laboratory preparation, lack of quality controlled data on the extent of drug resistance in many countries, infection control, drug management, information systems, funds for social support, training of staff, and overall programmatic funding.
TB/HIV

It was reiterated that coordination between the NTP and NAP is very important, but is presently insufficient at many country and regional levels. In addition, because defined and clear roles and responsibilities are often lacking, the potential for duplication of effort, omission, or confusion exists. Concern was raised specifically for what this means for vulnerable populations, for example prisoners, IDUs, homeless individuals and those with MDR-TB. The working group was also concerned about the lack of surveillance of TB/HIV (and in some cases barriers to the development of surveillance, for example through legislation). The group recognized that stigmatization of TB/HIV patients is different in different countries and, to varying degrees, may be an important obstacle to the management of patients, which should be addressed. The importance of GFATM support for both TB and HIV control was highlighted, as was the need for coherent implementation strategies. Moreover, for EURO funding through Round 5 to be most effectively used, technical support will need to be included in proposals.

Conclusions

The situation of TB control in the European Region is, second to Africa, the worst of the WHO Regions. DOTS population coverage is inadequate, case detection rates are falling substantially below the target of 70% of new smear-positive cases, and treatment success rates have levelled off at about 75%. Reaching the WHA targets of 70% detection and 85% treatment success by 2005 constitutes a major challenge, and reaching the indicators that relate to the MDG is also a substantial task. A major acceleration in the rate of expansion of DOTS population coverage, improving DOTS quality where implemented, and increasing case detection are urgent priorities. To achieve the MDG, government commitment needs to be strengthened, funding increased, and strategic support provided to engage the wider health economy.

Over the past decade there has been a shift in debate regarding TB control. It is broadly clear now what needs to be done to support TB control. The challenge is determining how in practical terms, recognizing the urgency of the situation, successful implementation can be achieved. Too little attention has been paid to how to operationalize effective policies in the Region. Political, technical, social and economic barriers hinder the development and implementation of effective policies. To respond effectively, programmatic implementation knowledge must be systematized, lessons need to be learnt and disseminated, operational research must be a Regional priority and supported financially, and political support must be generated. Support should be coherent and coordinated.

Recommendations

- A comprehensive TB control programme must address MDR-TB and TB/HIV, as well as TB (action WHO and NTPs).
- DOTS-Plus should be incorporated as part of NTP activities and strategic approach (action WHO and NTPs).
• DOTS expansion
  – Support implementation of DOTS through PHC systems to expand access to TB diagnosis and treatment (action NTPs).
  – Produce data for indicators of DOTS coverage (with particular focus on populations at risk), new pulmonary smear-positive (and/or culture-positive, if available) case detection and treatment success rates in standardized format by country and by Region for subsequent meetings (action NTPs).
  – Underscore importance of contact investigations as a key case-finding tool (action NTPs).
  – Improve response to defaulters, failures and deaths (action NTPs).
  – Invest in and build human resources base (action NTPs).
  – Advocate for political commitment (action WHO and NTPs).
  – Develop a rational pharmaceutical management system with enhanced quality assurance (action NTPs).
  – Ensure high quality technical support, appropriate laboratory capacity and training are in place (action NTPs).
  – Promote Stop TB Partnership at regional and country levels as an important means for monitoring the expansion of DOTS (action WHO and NTPs).
  – Ensure the involvement of civil society in advocacy of DOTS (action NTPs).

• Laboratory performance and quality control
  – Ensure technical advisory teams that evaluate TB programmes include laboratory expertise (action WHO and NTPs).
  – Ensure laboratory systems follow technical protocols, have accreditation and certification systems, training programmes, efficient reporting mechanisms and linkages to clinical partners (action NTPs).
  – Ensure that laboratory performance is externally quality assured (for example, through formal linkages with supranational reference laboratories) (action WHO and NTPs).
  – Evaluate operationalization of rapid diagnostic and DST methods, while maintaining the quality of smear microscopy and ensuring that it remains the foundation of detection (action WHO).
  – Establish a EURO task force to evaluate how laboratory capacity can be expanded (action WHO).

• MDR-TB
  – A comprehensive TB programme must address multidrug-resistant TB (action WHO and NTPs).
  – Re-assert fundamental need that highly functioning DOTS programme should be a foundation for DOTS-Plus implementation (action WHO and NTPs).
  – Ensure effective drug management systems are in place (action NTPs).
  – Define research agenda for patient management (action NTPs).
• TB/HIV health systems linkages
  – A comprehensive TB programme must address TB/HIV (action WHO and NTPs).
  – Establish coordination mechanisms between the NTP and NAP with particular focus on needs of vulnerable populations and overcoming structural barriers that hinder effective performance (action WHO and NTPs).
  – TB/HIV interventions should be scaled up through collaboration between the 3 by 5 Initiative and TB control.
  – Define specific responsibilities in management of TB/HIV between the NTP and NAP (action NTPs and NAPs).
  – Expand surveillance of TB/HIV (specifically HIV in TB patients and TB among HIV-infected individuals) (action NTPs and NAPs).
  – Develop evidence base on which health systems (relevant to TB/HIV) work, which do not, and why (action WHO).
  – Expand advocacy and communication on TB/HIV (action WHO and NTPs).
  – All TB and TB/HIV control programmes must recognize the severe stigma that many patients suffer, including loss of employment and social exclusion. Every programme must include measures to reduce stigma through education and example.

• Human resources
  – Draw on published evidence from health sector and beyond to support capacity development nationally and internationally (action WHO and NTPs).
  – Identify gaps, develop strategy to address needs, and mobilize resources (action WHO and NTPs).
  – Develop training tools to enable NTP managers to assess capacity needs and support planning (action WHO).
  – Design medium- and long-term strategies to meet demands on human resources for TB control (action WHO and NTPs).
Annex 1

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Annex 2

PROGRAMME

27 September 2004

08:30–09:00  Registration

Chairperson  Professor Ioan Paul Stoicescu

09:00–09:15  Opening and objectives
Representative of the Ministry of Health of Romania
Mario Raviglione, Director, Stop TB
Richard Zaleskis, Regional Adviser, TB Control
Lucica Ditiu, Medical Officer, TB Control in the Balkans

09:15–09:30  How far are we from reaching the WHA global targets for TB control?
R. Zaleskis

09:30–09:45  Millennium Development Goals (MDG) and their relation to the global targets
C. Watt

09:45–10:30  Challenges and constraints to reaching the global targets
Country presentations: Slovenia, Romania, Russia

10:30–11:00  Tea/coffee break

Chairperson  Dr Jaap Veen

11:00–11:15  Challenges and constraints to reaching the global targets
Country presentations: France
Professor D. Farge, J-L Herrmann, F. Antoun, O. Fain

11:15–12:15  Discussions on challenges and constraints to reaching the global targets

12:15–12:30  TB surveillance in Europe
J. Scholten

12:30–12:45  MDR-TB, DOTS-Plus and Green Light Committee (GLC)
M. Grzemska

12:45–13:00  TB/HIV: situation and control in Europe
P. de Colombani

13:00–14:00  Lunch

14:00–14:45  Discussions on TB surveillance, MDR-TB and TB/HIV
14:45–16:00  Working group discussions

Group 1: DOTS expansion and maintenance of quality of DOTS
Group 2: Laboratory performance and quality control
Group 3: MDR-TB and DOTS-Plus
Group 4: TB/HIV

16:00–16:15  Tea/coffee break

16:15–17:00  Working group discussions (continuation)

17:00–18:00  Plenary reports from the working groups

18:00  Closure for the day

28 September 2004

Chairperson  Professor Mikhail Perelman

08:30–09:00  Health workforce crisis: challenges and recommendations in human resources for TB control
  J. Figueroa

09:00–09:15  Discussions

09:15–09:45  GFATM: status of applications from countries and implementation
  P. de Colombani

09:45–10:00  Discussions

10:00–10:30  Stop TB Partnership in Europe
  G. Steenbergen

10:30–10:45  Discussions

10:45–11:00  Tea/coffee break

11:00–11:15  Practical Approach to Lung Health (information)
  Y. Yurasova

11:15–11:30  Brief Guide for PHC Providers (information)
  Professor L. Reichman

11:30–12:30  Draft recommendations and conclusions of the meeting

12:30–13:00  Closure of the meeting