## 7.3 Eastern Mediterranean Region: summary of planned activities, impact and costs

### Achievements

The DOTS strategy was introduced in the Eastern Mediterranean Region in the mid-1990s. Almost all countries in the Region have since expanded DOTS services throughout the network of health facilities of Ministries of Health, achieving 100% population coverage as well as high treatment success rates. In 2005, the regional DOTS coverage was close to 90% and the regional average treatment success rate 84%. There are many middle-income countries in the Region with a well developed public health care infrastructure. Political commitment to TB control is generally good. Most countries have thus laid the foundation for effective TB control. In other words, they have completed the first stage in the development of TB control, which is to achieve basic DOTS coverage and good treatment outcome within the existing programmes.

Encouragingly, a few countries, such as Morocco and Tunisia, have already achieved the 2005 global targets of detecting at least 70% of new smear-positive cases and treating successfully at least 85% of these cases. TB incidence has started to decline in these countries.

There is increasing awareness in the Region of the impact of HIV on TB. Initial steps have been taken to establish HIV surveillance among TB patients and to implement collaborative TB/HIV activities where appropriate. DOTS-Plus pilot projects have been implemented in Egypt, Jordan, Lebanon, Syrian Arab Republic and Tunisia, and the Practical Approach to Lung Health (PAL) strategy has been initiated in Jordan, Morocco, Syrian Arab Republic and Tunisia.

### Challenges

Geographical expansion of DOTS is incomplete in countries with complex emergencies because of poor health infrastructure or an unsafe environment, namely Afghanistan, Iraq, Somalia and Sudan (South and Darfur). The other countries in the Region are now in the second stage in the development of TB control – the stage of further improving quality and access. They are struggling with low case detection: the regional case detection rate is expected to be only 45% by the end of 2005. Case detection in the Region's two high-burden countries – Pakistan and Afghanistan – is still very low at 17% and 18%, respectively. This low case detection is due to many factors. Key components of DOTS, particularly case-finding and surveillance, are not always of high quality. In many countries of the Region, the private health care sector is booming but is not yet involved in DOTS. In addition, important segments of the public health care sector, such as social security health services or army health services, are not yet involved.

Coverage of drug resistance surveillance is low but is being expanded. The impact of HIV on TB is becoming increasingly important in countries with a generalized HIV epidemic (e.g. Djibouti, Somalia, Sudan) and in those where injecting drug use is an important cause of HIV infection (e.g. the Islamic Republic of Iran). The challenge will be to implement collaborative TB/HIV activities to address HIV-related TB in settings where health systems are weak and health service delivery is complicated by civil conflict.

### Priority activities 2006–2015

The first priority is to improve further the quality of key basic components of DOTS, such as laboratory diagnosis, surveillance and drug management, and to develop and sustain adequate human resources to deliver quality DOTS. Public-private mix for DOTS will be scaled up widely. The involvement of the NGO sector will continue to be essential in areas with complex emergencies.

In order to facilitate implementation of DOTS-Plus, culture and drug susceptibility testing services will be scaled up. It is expected that by 2015 DST will be provided for 100% of previously treated TB patients. DOTS-Plus will be expanded in a stepwise approach to reach 100% coverage by 2015. Scaling up culture services will also improve the diagnosis of smear-negative TB cases, which is particularly important for areas with high HIV prevalence.

To further improve quality across different health sectors, and help boost case detection, PAL will be implemented widely in the region. Community DOTS will be scaled up in selected rural areas. Surveillance is important to assess and monitor the burden of HIV infection in TB patients. Collaborative TB/HIV activities need to be implemented and strengthened in settings with a high HIV burden.

Operational research activities will continue to be promoted in order to solve problems identified through the TB surveillance and TB control information system. Countries in the Eastern Mediterranean Region will be supported in adapting, developing and implementing special strategies to control TB, especially in poor settings and in big cities. In order to realize sustainable political, technical and financial support to TB control, Stop TB Partnerships will be developed at regional and national levels, and strategic approaches for communication, advocacy and social mobilization will be adapted and implemented.

### Expected effects and costs

Successful implementation of the activities described above is expected to increase case detection rapidly to 73% by 2010 and 80% by 2015. Treatment success rate will increase from 84% to 87% in 2010 and be sustained at this level. TB incidence, prevalence and death rate are already falling in the Region. Planned activities are predicted to boost the decline further and the 2015 Partnership targets, linked to the MDG target, will be met in the Eastern Mediterranean Region.

During the period of the plan (2006–2015), it is estimated that 3.6 million people will be treated in DOTS programmes and 48 000 in DOTS-Plus. In addition, 36 000 TB patients will be enrolled on antiretroviral therapy. The combined effect of all interventions will be to prevent about 798 000 deaths, in comparison with a

situation in which no DOTS programmes are implemented, or about 196 000 deaths in comparison with a situation in which TB control efforts are sustained at 2005 levels.

The total estimated cost of DOTS expansion, DOTS-Plus and TB/HIV control activities in the Eastern Mediterranean Region from 2006 to 2015 is US$2.6 billion.

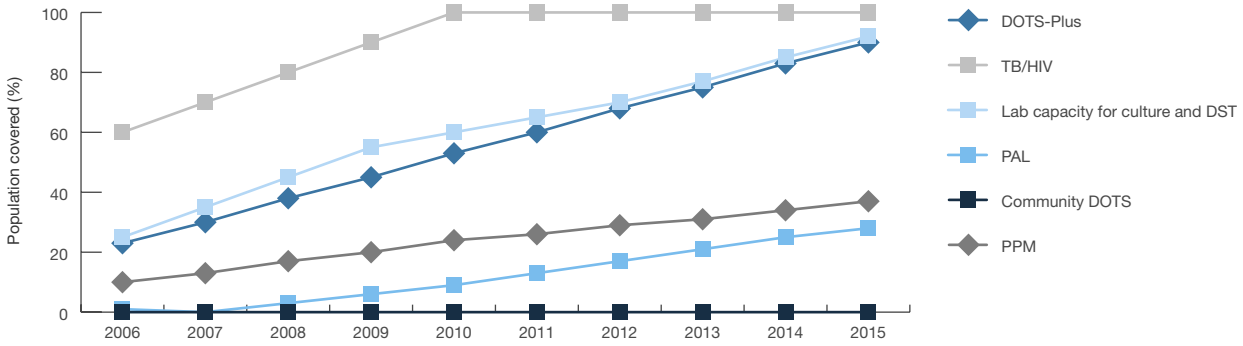
**TABLE 10:** COST OF PLANNED TB CONTROL ACTIVITIES EASTERN MEDITERRANEAN REGION 2006–2015

| Planned activities | US$ millions |
|---|---|
| DOTS expansion and quality | 2,221 (85%) |
| DOTS-Plus | 226 (9%) |
| TB/HIV collaborative activities | 175 (7%) |
| TOTAL | 2,622 (100%) |

## SUMMARY CHARTS FOR EASTERN MEDITERRANEAN REGION

**FIGURE 23:** PLANNED SCALE UP OF ACTIVITIES 2006-2015

Eastern Mediterranean Region




N.B. Population coverage is the percentage of the population that lives in an area where the activity is implemented. For TB/HIV collaborative activities the percentage refers to the proportion of the eligible population, i.e. the population living in areas with an HIV prevalence above 1%. For DOTS-Plus, it is the percentage of detected MDR-TB cases that are enrolled in DOTS-Plus programmes.

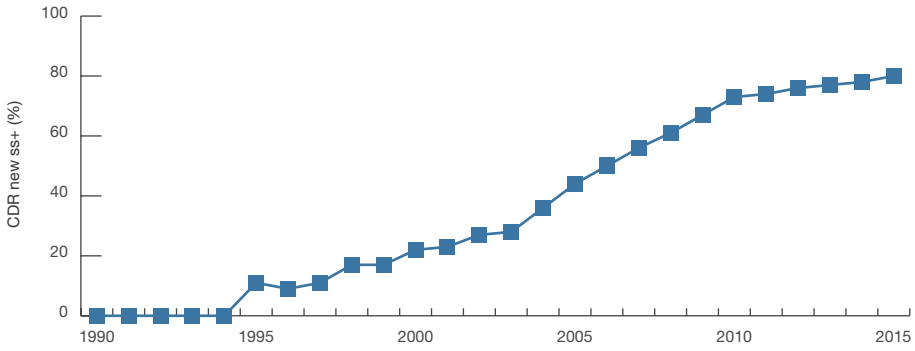
**TABLE 11:** MILESTONES RELATED TO IMPLEMENTATION OF DOTS EXPANSION, DOTS-PLUS AND TB/HIV ACTIVITIES (a)

| Eastern Mediterranean Region | 2006 (b) | 2010 (b) | 2015 (b) |
|---|---|---|---|
| **DOTS EXPANSION** | | | |
| DOTS coverage | 100% | 100% | 100% |
| Total number of new ss+ patients treated in DOTS programmes (thousands) | 133 (267) | 180 (247) | 154 (194) |
| Case detection rate new ss+ (%) | 50% | 73% | 80% |
| Treatment success rate new ss+ (%) | 85% | 85% | 87% |
| Total number of new ss-/extra-pulmonary patients treated in DOTS programmes (thousands) | 166 (331) | 224 (309) | 193 (244) |
| Percentage of new ss-/extra-pulmonary patients treated in DOTS programmes | 50% | 73% | 79% |
| **DOTS-Plus** | | | |
| Total number of detected MDR-TB patients treated in DOTS-Plus programmes (thousands) | 0.7 (3.0) | 4.3 (7.4) | 9.2 (9.2) |
| Percentage of detected MDR-TB cases treated in DOTS-Plus programmes | 25% | 58% | 100% |
| MDR-TB treatment success rate (%) | 71% | 73% | 75% |
| Percentage of culture positive cases that are re-treatment cases | 13% | 12% | 10% |
| **TB/HIV** | | | |
| Total number of PLWHA attending HIV services screened for TB (thousands) | 98 (159) | 241 (241) | 323 (323) |
| Percentage of PLWHA attending HIV services screened for TB (c) | 62% | 100% | 100% |
| Total number of newly diagnosed and eligible PLWHA offered IPT (thousands) | 6.2 (254) | 6.8 (390) | 6.9 (526) |
| Percentage of PLWHA offered IPT | 2% | 2% | 1% |
| Total number of TB patients in DOTS programmes HIV tested and counselled (thousands) | 152 (299) | 344 (404) | 296 (348) |
| Percentage of TB patients treated in DOTS programmes HIV tested and counselled | 51% | 85% | 85% |
| Total number of TB patients (HIV positive and eligible) in DOTS programmes enrolled on ART (thousands) | 1.5 (3.4) | 3.6 (6.6) | 4.3 (8.2) |
| Percentage of TB patients (HIV positive and eligible) in DOTS programmes enrolled on ART | 46% | 57% | 62% |

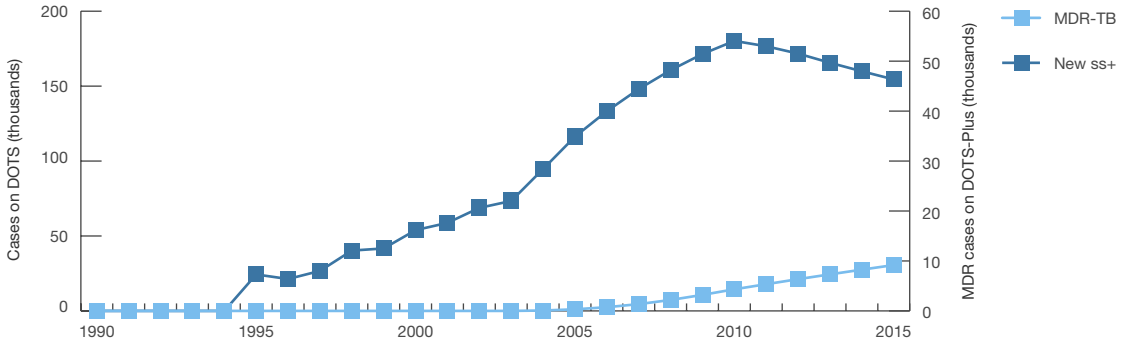
(a) The percentages are not always exactly the numerator devided by the denominator due to rounding errors.
(b) Numbers in parentheses indicate the denominator. For DOTS Expansion it is new TB cases.
For DOTS-Plus it is the total number of detected MDR-TB cases.
For PLWHA screened for TB it is the total number of PLWHA attending HIV services. For PLWHA offered IPT it is the total number of PLWHA.
For TB patients HIV tested and counselled it is the total number of TB patients treated under DOTS in areas covered by TB/HIV collaborative activities.
For TB patients enrolled on ART it is the total number of HIV positive TB patients in DOTS programmes that are eligible for ART in areas covered by TB/HIV collaborative activities.
(c) HIV services include testing and counselling and HIV treatment and care services.

**FIGURE 24:** ESTIMATED IMPACT AND COSTS OF PLANNED INTENSIFIED ACTIVITIES 2006–2015

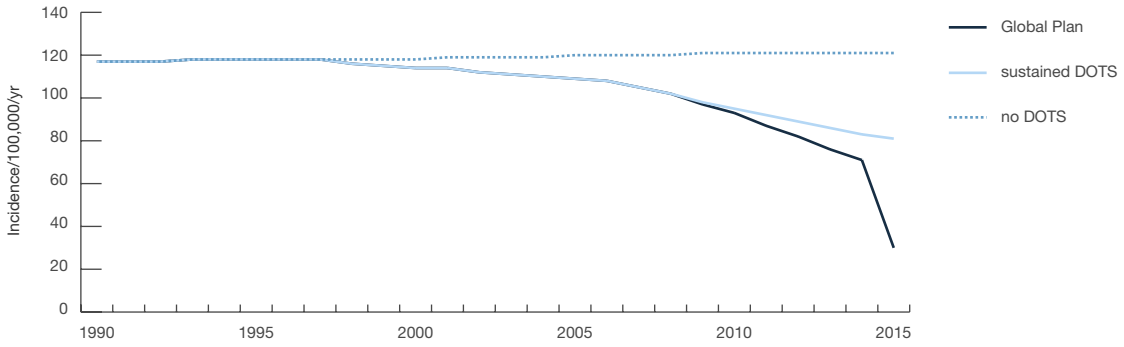
Eastern Mediterranean Region: **Case detection rate, new ss+ cases**



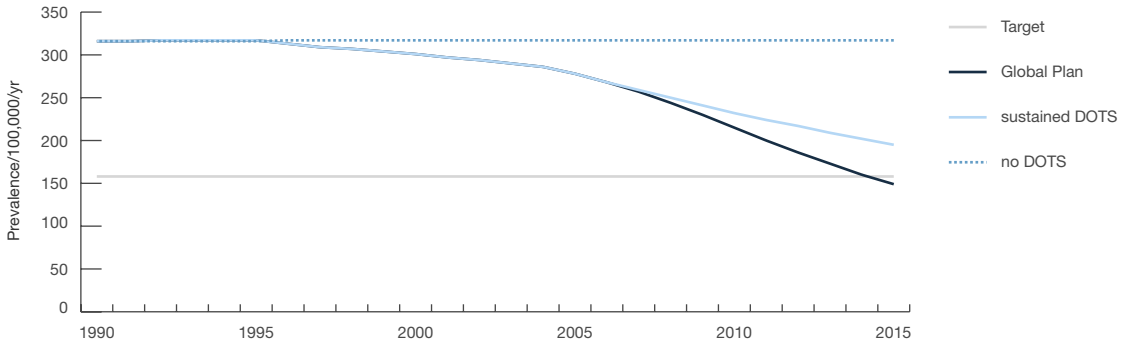

Eastern Mediterranean Region: **Number of cases treated under DOTS/DOTS-Plus**



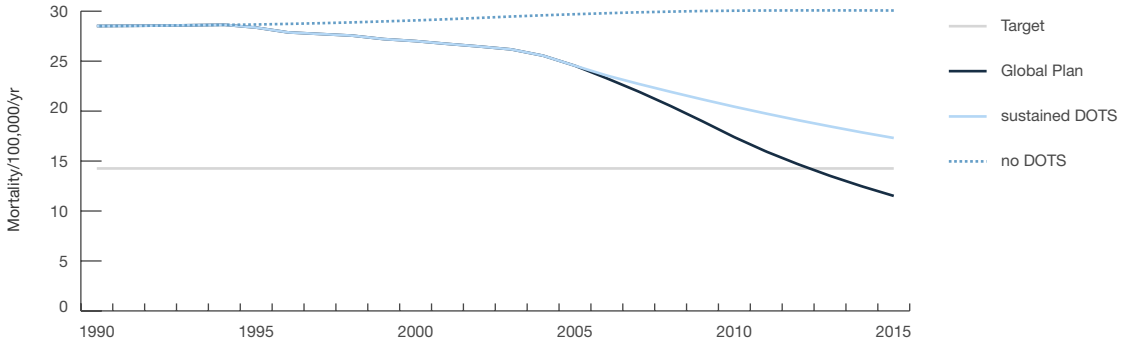

Eastern Mediterranean Region: **Incidence**



**Eastern Mediterranean Region: Prevalence**




**Eastern Mediterranean Region: Mortality**




**Eastern Mediterranean Region: Total costs**