

# The Russian Federation

## Overview of TB control system

The Russian Federation does not have a formally established NTP, and TB control is provided by a network of specialized TB dispensaries and hospitals that are not integrated into the general health care system. TB diagnosis and treatment are also provided in specialized medical institutions of the Ministry of Defence, Ministry of Interior, and Ministry of Railways, and in penitentiaries run by the Ministry of Justice. The MoH recognizes the need to reorganize and link the TB system with the primary health care network, though progress towards integration has been slow.

Five federal TB research institutions are located in different federal districts of the country. The role of the central unit is carried out partly by the Research Institute of Phthysiology (RIPP) of the Sechenov Moscow Medical Academy. The Director of the RIPP has been nominated as Chief Phthysiologist of the Ministry of Health (equivalent to the NTP manager). A second research facility in Moscow, the Central Tuberculosis Research Institute of the Russian Academy of Medical Sciences, is a WHO collaborating centre for DOTS implementation and expansion.

Despite considerable progress in implementing DOTS, and growing political commitment, Russia's TB control system is hampered by the prevailing medical/clinical approach in TB control, as distinct from the public health model, by uneven support from Russian authorities, and by weak coordination among government departments.

## Surveillance, planning, operations

Although the case notification rate increased nearly 3-fold during the

1990s, it has remained more or less stable for the last 4 years, suggesting that the deterioration of population health and health services in Russia has been halted. DOTS population coverage was 25% by the end of 2002, but the case detection rate by the DOTS programme was estimated to be only 6%. Case notification rates were highest among men aged 35–64 years, and far higher than among women of the same age. Treatment success remained low at 67% for the 2001 cohort, mainly because 14% of patients failed treatment, 8% died, and 6% defaulted. Although the objective was to reach a DOTS coverage of 28% of the country (comprising 27 territories) by the end of 2003, DOTS has been expanding slowly in the Russian Federation. The reasons are that some donors reduced support prior to the start of the new

World Bank loan, and that DOTS expansion has not been the focus of TB control efforts until recently.

The organization of Russia's TB programme is complex and hierarchical, but well-defined. The MoH serves as the NICC, coordinating the work of national partners. The high-level working group (HLWG, comprising representatives from the Russian Ministry of Health, the Ministry of Justice, the Russian Academy of Medical Sciences, the Council of Europe, and WHO) provides support for coordination at both national and international levels and assisted with development of the DOTS expansion plan. An International Interagency Coordination Committee, formed in September 2002 under the umbrella of the HLWG, now provides better coordination between the MoH and international partners. A second

## PROGRESS IN TB CONTROL IN THE RUSSIAN FEDERATION

### Indicators

• Treatment success 2001 cohort	67%
• DOTS detection rate, 2002	6%
• NTP budget available, 2003	47%
• Government contribution to budget, including loans, 2003	47%
• Government contribution to total TB control costs, including loans, 2003	53–58%
• Government health spending used for TB, 2003	2–3%

### Constraints to achieving targets

- Lack of national consensus on appropriate TB control strategy
- Poor treatment outcomes caused by MDR-TB
- Inadequate laboratory services and absence of TB reference laboratories
- Lack of training and education about modern TB control strategies
- Large funding gap

### Remedial actions needed

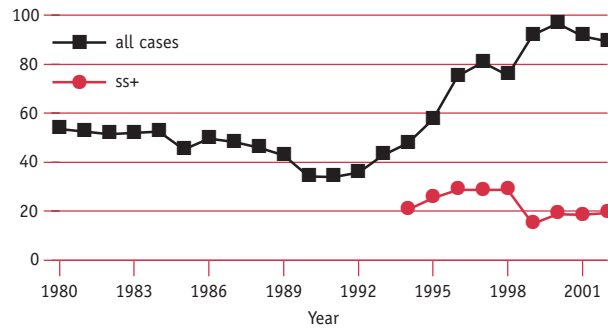
- Advocate at federal level for DOTS strategy, for the establishment of a central TB control unit, and for the development of national policy in compliance with WHO recommendations
- Improve case management by ensuring direct observation of treatment
- Develop national guidelines for MDR-TB control and management
- Mobilize resources to strengthen laboratory services and establish reference laboratory network
- Provide technical support to develop human resources at federal and regional levels
- Mobilize funding

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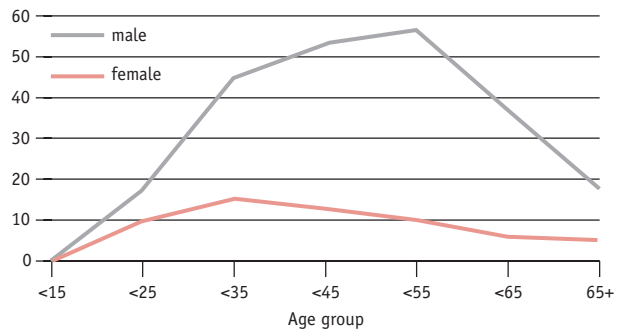
LATEST ESTIMATES <sup>a</sup>		TRENDS	1999	2000	2001	2002
<b>Population</b>	<b>144 081 588</b>	DOTS population coverage (%)	5	12	16	25
Global rank (by est. number of cases)	11	Notification rate (all cases/100 000 pop)	92	97	91	89
Incidence (all cases/100 000 pop)	126	Notification rate (new ss+/100 000 pop)	15	19	18	19
Incidence (new ss+/100 000 pop)	56	Detection of all cases (%)	81	82	75	71
Prevalence (ss+/100 000 pop)	85	Detection of new ss+ cases (%)	29	36	34	34
TB mortality per 100 000 pop	23	DOTS detection of new ss+ (%)	1.7	4.8	5.2	6.4
% of adult (15-49y) TB cases HIV+	5.1	DOTS detection of new ss+/coverage(%)	34	40	32	25
% of new cases multi-drug resistant	6.0	DOTS treatment success (new ss+, %)	65	68	67	—

## Notification rate (per 100 000 pop)

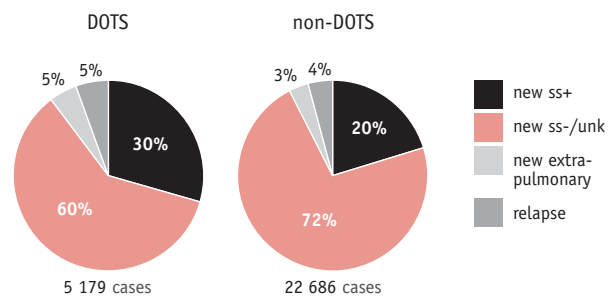
Notification (all cases) = 128 873 in 2002



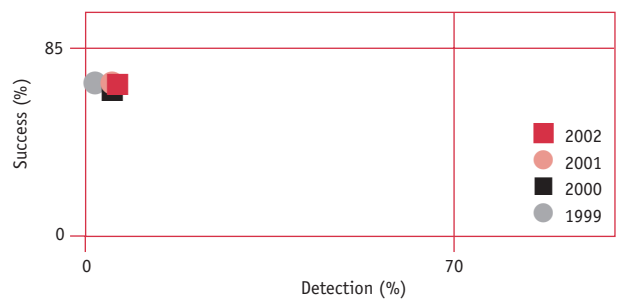
## Notification rate by age and sex (new ss+)<sup>b</sup>



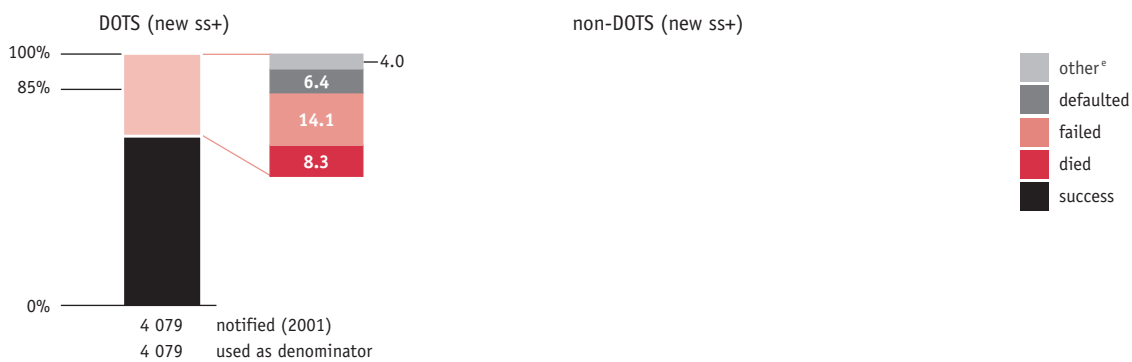
## Case types notified<sup>c</sup>



## DOTS progress towards targets<sup>d</sup>



## Treatment outcomes<sup>e</sup>



## Notes

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

<sup>a</sup> See Methods for data sources.

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

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

<sup>d</sup> DOTS progress towards targets: DOTS detection rate for given year, DOTS success rate for cohort registered in previous year.

<sup>e</sup> "Other" includes transfer out and not evaluated, still on treatment, and other unknown.

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meeting was held in November 2003.

Activities in 2003 focused on completion of the national guidelines for TB diagnosis, treatment, and laboratories, and the improvement of coordination mechanisms. Consensus was reached on a recording and reporting system complying with WHO recommendations for quarterly cohort analysis. This step will permit faster implementation of Russia's 5-year plan for expansion of the revised TB control strategy. However, there is not yet consensus among Russian TB authorities on the cost effectiveness of active versus passive case finding, of cohort analysis versus other non-DOTS forms of monitoring, and of sputum smear versus X-ray diagnosis. Cost-effectiveness studies of alternative TB control strategies began in 2000, and recommendations for the national strategy will be made based on those findings. Further discussion in 2003 took place during meetings of the HLWG.

Newly-developed and approved national standards for chemotherapy should ensure treatment effectiveness, and prevent and contain the drug resistance that continues to impede efforts to reach the target for treatment success (85%). Treatment outcomes are also expected to improve through a reduction in defaulting once recommendations are developed to guide implementation of a social support system for patients.

Seven regions in Russia (Ivanovo, Orel, Vladimir, Tomsk, Kemerovo, Samara, and Arkhangelsk) participate in DRS surveys within the framework of the WHO/IUATLD global project on anti-TB drug resistance surveillance. Surveys carried out between 1995 and 2002 show that MDR-TB occurs in 3–14% of new cases, and in 26–44% of previously treated cases. National data on MDR are difficult to interpret due to the lack of standardized laboratory methods. GLC-approved DOTS-Plus pilot projects have been implemented in 2 regions (Tomsk and Orel), and will begin in 2 more regions in 2004 (Ivanovo and Arkhangelsk). As of October 2003, 412 MDR-TB patients were enrolled in Tomsk. Preliminary results for 166 patients suggest that the treatment success rate will be between 70% and 80%. No patients in Orel had completed treatment at the time of writing. A working group on management of MDR-TB was established to bring treatment guidelines into compliance with international recommendations. The MoH is planning to establish MDR-TB centres of excellence throughout the country, as set forth in the 5-year strategic plan.

Staff capacity was strengthened through the training of federal-level trainers, though a lack of funds prevented the training programme from being carried out on a large scale. Mobilization of funds to support development of the health work-

force is critical for reaching targets.

There is no national TB reference laboratory, there are insufficient resources to support a countrywide network of TB laboratories, and there is a lack of quality control. The development of a laboratory network was started in 2003, including the production of guidelines and the designation of reference laboratories. Large-scale activities will be implemented within the new World Bank project.

Although the data on TB-associated HIV are poor, a framework for TB/HIV control is being prepared by the HLWG and will be tested in selected regions. TB patients are tested for HIV infection. TB/HIV collaborative activities currently include ART delivery for HIV-infected TB patients. Activities will also be supported by the new World Bank project.

### Partnerships

Russia has attracted many donors and partners to support TB control over the last 7 years. WHO plays a coordinating role between agencies, and an important part in fundraising. From 1999 to 2003, policy revision and strategic development by the HLWG were supported by DFID. Recently DFID decided to terminate its support to the HLWG, endangering progress in DOTS expansion and possibly slowing changes in TB control policy. DFID will continue to support analysis of cost-effectiveness in

### Budget estimates, existing funding, and budget gaps for fiscal year 2004, US\$ millions

Budget item	REQUIRED FUNDING	EXPECTED FUNDING				FUNDING GAP
		GOVERNMENT	LOANS	GRANTS	OTHER	
Drugs	50.8	38.3	—	0.5	—	12.0
Dedicated staff working exclusively for TB control	113.1	113.1	—	—	—	—
New activities to raise case detection and cure rates <sup>a</sup>	146.6	10.6	8.3	0.5	—	127.2
Buildings, equipment, vehicles	60.0	5.5	—	0.01	—	54.5
All other line items	5.0	0.1	—	0.5	—	4.4
<b>TOTAL BUDGET</b>	<b>375.5</b>	<b>167.6</b>	<b>8.3</b>	<b>1.5</b>	<b>—</b>	<b>198.1</b>

— Indicates zero; NA, not available

<sup>a</sup> Includes US\$ 100 million for improvement of detection and diagnostics through use of X-rays, US\$ 21 million for improvement of microbiological diagnostics and US\$ 20 million for provision of social support to patients.

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2004. WHO supports DOTS implementation in several regions using funds from USAID, Finland, Sweden, CIDA, and DFID. International NGOs such as MSF, Merlin, FILHA, LHL, and agencies like IFRC/The Russian Red Cross Society, are all actively working in both the civilian and prison populations. Other major donors and partners include the World Bank, GTZ, PIH, KNCV, Soros Foundation, Gates Foundation, PHRI, KIL TB Consortium, and Gorgas/University of Alabama. Russia is one of the only countries with the foresight to develop regional exit plans describing how TB control will be sustained when funding from external donors is no longer available.

### **Budgets and expenditures**

Following the development of a 5-year plan for TB control, budget estimates for the period 2003–7 are now available. Excluding dedicated TB control staff (approximately US\$ 113 million per year based on

figures for 2004), the total is US\$ 972 million, or around US\$ 200 million per year.

For the fiscal year 2004 (from 1 January), the total budget is US\$ 375 million. The largest items are dedicated staff (US\$ 113 million), the improvement of TB detection and diagnosis through X-ray methods (US\$ 100 million), the construction, repair and renovation of TB facilities (US\$ 60 million), and first and second-line drugs (US\$ 51 million). The budget for TB detection and diagnosis is particularly large in 2004; for the period of the 5-year plan, the average is US\$ 36 million per year.

Funding for 2004 falls far short (by US\$ 198 million) of the needs identified. Currently, US\$ 167.6 million is available from the federal government, US\$ 8.3 million from the World Bank loan, and US\$ 1.5 million from grants. Most of these funds are for dedicated TB control staff and drugs, suggesting that the purchase of new diagnostic equipment and the im-

provement of existing facilities will not occur unless new sources of funding are identified soon. The MoH has submitted an application to the GFATM, which will be reviewed in the next funding round. The amount requested is not in the public domain.

Beyond the budget shown in the table, there are further costs (e.g. food for patients, utilities) associated with operating the country's extensive network of 81 425 TB beds. Recent costing studies indicate that these are in the region of US\$ 50–100 million per year. When this cost is added to the budget in the plan, the total is around US\$ 400–500 million per year. This is enormous in comparison with other high-burden countries, and is principally due to the extensive reliance on inpatient care, to much higher proposed expenditures on X-ray equipment, and to the greater need for second-line drugs to address the problem of MDR-TB.