

PD-ABY-508

**PROGRESS REPORT**

**TO THE UNITED STATES AGENCY  
FOR INTERNATIONAL DEVELOPMENT (USAID)**

**FROM THE STOP TUBERCULOSIS DEPARTMENT  
OF THE WORLD HEALTH ORGANIZATION (WHO)**

**ON**

**TUBERCULOSIS CONTROL  
IN THE RUSSIAN FEDERATION**

**PILOT PROJECT**



**December 2002 – May 2003**

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## GLOSSARY

<b>CDC</b>	Centers for Disease Control and Prevention
<b>CTRI RAMS</b>	Central Tuberculosis Research Institute of the Russian Academy of Medical Sciences
<b>DFID</b>	United Kingdom Department for International Development
<b>DGSR</b>	Special Representative of the Director-General of WHO in the Russian Federation
<b>DOT</b>	Directly Observed Treatment
<b>DOTS</b>	Directly Observed Treatment Short-course
<b>GHC</b>	General Health Care
<b>GUIN</b>	Federal Penitentiary System
<b>HIV</b>	Human Immunodeficiency Virus
<b>HLWG</b>	High Level Working Group
<b>ICC</b>	Interagency Coordination Committee
<b>KIL</b>	TB Consortium
<b>IFRC</b>	International Federation of Red Cross and Red Crescent Societies
<b>MDR-TB</b>	Multidrug-resistant Tuberculosis
<b>MMA</b>	Sechenov Moscow Medical Academy
<b>MoH</b>	Ministry of Health of the Russian Federation
<b>MoJ</b>	Ministry of Justice of the Russian Federation
<b>MSF</b>	Médecins Sans Frontières
<b>RIPP MMA</b>	Research Institute of Phthisiopulmonology of Sechenov Moscow Medical Academy
<b>RF</b>	Russian Federation
<b>RRC</b>	Russian Red Cross
<b>SARS</b>	Severe Acute Respiratory Syndrome
<b>TB</b>	Tuberculosis
<b>TB-ICC</b>	TB Interagency Coordination Committee
<b>TORs</b>	Terms of Reference
<b>TST</b>	Tuberculin Skin Testing
<b>TWG</b>	Thematic Working Group
<b>USAID</b>	United States Agency for International Development
<b>UIN</b>	Ministry of Justice Correctional Department
<b>WB</b>	World Bank
<b>WHO</b>	World Health Organization

## **1. GENERAL INFORMATION**

### **1.1 Project title**

Tuberculosis Control in the Russian Federation Pilot Programme

### **1.2 Timeframe of the project**

27 August 1999 - 31 December 2004

### **1.3 Project sites**

Ivanovo Oblast, Orel Oblast, Vladimir Oblast, Chuvashia Republic of the Russian Federation (RF), Central TB Research Institute of the Russian Academy of Medical Sciences (CTRI RAMS), Research Institute of Phthisiopulmonology of Sechenov Moscow Medical Academy (RIPP MMA).

### **1.4 Reporting period**

1 December 2002 – 31 May 2003

## **2. EXECUTIVE SUMMARY**

The Ministry of Health (MoH) has recognized that the USAID-funded, WHO-coordinated TB demonstration projects are part of the expansion of the revised national TB control strategy in accordance with the World Bank (WB) loan for TB/HIV work and the MoH five-year plan for “The provision of guaranteed diagnostic and treatment procedures for TB patients and development of the TB service in Russia”.

The approval of the TB/HIV loan in December 2002 by the Russian Government and in March 2003 by the WB Board of Directors, and the new Executive Order on TB control from the MoH are a breakthrough in introducing cost-effective and evidence-based TB control in Russia. At the last High Level Working Group (HLWG) meeting on 14 May 2003, clear progress was made in mutual understanding between the WHO and the majority of decision-makers at every administrative level.

An effective framework for the implementation, monitoring and supervision of the WB project is still absent, and WHO needs to continue making recommendations at the federal level on MDR-TB management, training and education, TB/HIV and the centralization of laboratory services.

Further strong donor support is needed to make the bridge between the USAID grant and the implementation of the WB project.

The TB demonstration projects have so far progressed well, with slightly different approaches in each region. WHO has promoted close cooperation with different partners in each area.

The findings and results of project implementation were used during negotiations between the MoH and the WB, as well as for development and revision of the MoH five-year plan for “The provision of guaranteed diagnostic and treatment procedures for TB patients and development of the TB service in Russia” to be implemented by the Federal Government.

In Orel Oblast, for the first time since the TB pilot projects began in the RF, treatment outcomes reached the WHO target of 85% cure rate by culture results. However, the TB control model still needs further analysis before being applicable to the whole country.

Thus, treatment with suboptimal results and relatively high death rates needs to be investigated. The Directors for WHO-coordinated TB demonstration and pilot projects meeting held on 29 April 2003 was dedicated to these issues. Another important concern is the reduction in external funding for the regions and how to attract local budget support for the TB control programme.

Thanks to intense follow-up of patients, treatment interruptions of more than 2 months are rare. Nevertheless, some patients are reported to have frequent short interruptions during their course of treatment. Health education for patients, their families and the general public should be improved and the inclusion of the General Health Care (GHC) service in TB control efforts needs further attention. WHO is working closely with its counterparts to tackle these issues.

The development of the TB demonstration projects and the revision of the national TB control policy is closely linked to other important TB control activities funded by different donors. These activities include the "Cost-effectiveness of TB control in the Russian Federation" project, the activities of the High Level Working Group (HLWG) funded by the United Kingdom Department for International Development (DFID), and the USAID-funded TB control projects implemented by the International Federation of Red Cross and Red Crescent Societies (IFRC).

### **3. BACKGROUND INFORMATION**

#### **3.1 Epidemiological situation**

Official data indicated a small decline in the TB notification rate from 90.7/100 000 in 2000 to 88.2/100 000 in 2001. Preliminary statistical data for 2002 show a further decrease in the notification rate to 84.9/100 000.

The TB mortality rate fell from 20.5/100 000 in 2000 to 19.9/100 000 in 2001. Preliminary statistical data for 2002 show an increase amounting to 21.5/100 000.

The positive changes in TB incidence are the result of improved and centralized procurement of TB drugs and a moderate improvement in the quality of TB care. These improvements occurred primarily in the prison sector, while in the civilian sector the absolute number of new TB cases rose from 93 919 (total 132 071) in 2000 to 94 651 (total 127 192) in 2001.

The notification rate for TB in children reached 18.6/100 000, which represents over 4500 children with TB in 2001. Preliminary data show a decrease to 17.5/100 000 in 2002.

However, only 42% of the reported TB cases in the country (2001 data) are bacteriologically confirmed. There is a high risk that overnotification of non-bacillary TB cases will lead to underdetection of infectious TB patients, especially from socially disadvantaged population groups.

High levels of multidrug-resistant TB and a possible epidemic of HIV/AIDS are alarming.

### **3.2 Expansion of the WHO TB control strategy in the RF**

The political commitment of the Russian authorities to the WHO-recommended TB control strategy and activities coordinated by the WHO TB Office remains strong at the federal level. A milestone in the development of a joint policy and strategy for TB control by the MoH and WHO was the signing of the long-awaited new MoH Executive Order (“Prikaz”) on Improvement of TB control activities in the Russian Federation” (#109), approved on 21 March 2001. Upon subsequent approval by the Ministry of Justice (MoJ), the Executive Order came into effect. This “Prikaz” stipulates new diagnostic, treatment and surveillance standards, which include the recommendations developed by the different Thematic Working Groups (TWGs) consisting of Russian and international experts. This is a big step towards nationwide acceptance and endorsement of international approaches to TB control.

Another significant event was the approval by the Russian Government of the WB loan for TB/HIV in December 2002 and by the WB Board of Directors in March 2003. According to the agreed minutes of the technical discussions between Russia and the International Bank for Reconstruction and Development regarding the TB and AIDS control project, the MoH is going to approve the “protocols for TB diagnosis, treatment and surveillance, consistent with evidence-based approaches that are agreed with WHO”. The loan agreement includes the recommendations put forward by the WHO/MoH TWG on MDR-TB management: “The Russian Health Care Foundation shall not initiate any procurement actions in respect of second-line TB drugs for any health facility, unless this health facility is in full compliance with the requirements approved by both the MoH and WHO for the use of such drugs.” The Technical Protocol also includes the requirements of the WHO/MoH TWGs concerned with laboratories, surveillance, and training and education. The implementation of the WB project is expected to commence in the fall of 2003.

Twenty-seven areas are currently implementing TB control programmes based on the WHO recommendations in coordination with the Office of the Special Representative of the Director-General of WHO in the Russian Federation (DGSR) in Moscow. The 27<sup>th</sup> territory, Kaliningrad Oblast, officially started implementation on 11 February 2003.

## **4. PROJECT GOALS**

1. To support the efforts of the Russian health services in decreasing the burden TB in the RF through developing a comprehensive, effective and sustainable model TB control programme based on the WHO TB control strategy (DOTS and DOTS-Plus) that could be replicated by the Russian Government.
2. To strengthen the national TB services at the federal and national levels.

## **5. PROJECT OBJECTIVES**

1. To obtain a bacteriologically-confirmed cure rate of 75% or more for new sputum smear positive TB cases;
2. To detect 70% of expected cases of sputum smear positive TB;
3. To obtain sputum specimens from 100% of sputum producing pulmonary TB patients for smear, culture and drug susceptibility results, which will be used to guide treatment;
4. To provide Directly Observed Treatment using standardized short-course multidrug therapy (DOTS) for 100% of patients with newly diagnosed or previously treated TB.

## **6. TARGET GROUPS**

1. TB patients in Categories I, II and III, according to WHO definitions, in four designated oblasts and Category IV (MDR-TB) in Orel and Ivanovo Oblasts;
2. National TB control service personnel in four designated oblasts;
3. Designated federal TB research institutes.

## **7. PROGRESS TO DATE**

### **7.1 Major achievements in the regions and at the federal level**

#### *Major achievements in the regions*

##### **Orel Oblast**

- 60 MDR-TB patients are enrolled in the DOTS-Plus for MDR-TB project, and two major training courses on the clinical aspects of MDR-TB were run in collaboration with the Orel TB dispensary, the Centers for Disease Control and Prevention (CDC), the MoJ and CTRI RAMS;
- The TB demonstration centre in Orel Oblast was strengthened with the provision of essential teaching equipment and received a delegation from the USAID-funded DOTS project in Ukraine on a study tour.

##### **Vladimir Oblast**

- Political commitment at the highest oblast level was reinforced when the Governor of the region opened the long-awaited new premises of the oblast TB dispensary and chaired the Interdepartmental TB Control Commission;
- The refurbishment of the MDR-TB department for patients in the TB colony prison in Vladimir city was completed, and infection control measures can now be introduced to separate drug-sensitive from resistant patients.

##### **Chuvashia Republic**

- The clinical laboratories of the TB and GHC service were equipped with new binocular microscopes to enable better case detection;
- CDC and RIPP MMA collaborated to run the first training course for laboratory chiefs and technicians.

##### **Ivanovo Oblast**

- Oblast TB dispensary staff were given technical assistance with their application to the Green Light Committee to receive second-line TB drugs at concessionary prices.

## Interregional

- The prison medical staff from 13 regions, which received second-line TB drugs from the MoJ, were trained in the clinical aspects of MDR-TB management in order to introduce better practice in the use of these drugs;
- The quarterly Directors' meeting for the WHO-coordinated TB demonstration and pilot projects took place in the WHO Moscow Office. The chief TB doctors and chiefs of medical departments of Ivanovo, Orel, Vladimir, Veliki Novgorod and Kaliningrad Oblasts and Chuvashia and Ingushetia Republics reported on their investigations into the reasons for the high death and failure rates. Small working groups discussed possible intervention strategies to raise the cure rate to the WHO target of 85%. It was decided to introduce quarterly cohort review meetings in order to focus on problem districts. It was agreed that further multifactorial analysis in collaboration with CDC is necessary to quantify the risk factors for the high treatment failure and death rates.

### *Major achievements at the federal level*

- The practical experience of the TB demonstration projects was incorporated into the work of the TWGs on surveillance, social support and TB/HIV;
- The role of the TB demonstration projects in DOTS expansion through the upcoming World Bank loan for TB/HIV is recognized by the MoH;
- The first DOTS project (Tomsk Oblast) in the Russian Federation was jointly evaluated by representatives of MoH, MoJ, three federal TB research institutes and WHO.

## 7.2 Training

During the reporting period, training activities were continued at the regional and interregional levels, covering various aspects of TB control management:

### Interregional

2003

- **15-17 April:** A joint CDC/WHO/National Institute for Occupational Safety and Health training course on infection control was conducted for 45 TB specialists, chief nurses, construction engineers, staff from the sanitary-epidemiological services, as well as 15 guest participants from Pskov, Belgorod, Khakassiya, St. Petersburg, Murmansk and Arkhangelsk.
- **21-23 May:** An interregional training course in management of MDR-TB was held in the TB demonstration and training centre in Orel Oblast. About 120 TB staff participated from civilian and prison TB projects, representing over 15 oblasts and three federal TB research institutes (Moscow, St. Petersburg and Novosibirsk). Trainers were senior staff from WHO, CDC, CTRI RAMS, Partners in Health and Orel Oblast TB dispensary (101 participants). This training course took place at the request of the MoH and MoJ in order to promote better management of the second-line TB drugs available in the regions.

## Ivanovo Oblast

### 2003

- **21-22 and 23-24 April:** WHO/CDC/Ivanovo Oblast TB dispensary staff conducted training courses on “The role of TB and clinical laboratories in TB control at the district level” for the heads of TB laboratories and GHC laboratories, as well as laboratory technicians from the project in Ivanovo Oblast (60 participants each, 120 in total);
- **12-16 May:** WHO/CTRI RAMS organized training on “Management of TB at the district level” for TB doctors, based on the new WHO training modules and adapted to the Russian context (45 participants);
- **17 May:** WHO and CTRI RAMS supervisors met for their first treatment outcome cohort review, and individual TB doctors discussed their current problematic patients. These cohort review meetings will promptly identify and address obstacles, so as to increase effective management and subsequently improve treatment outcomes (45 participants);
- **20 May:** The Ivanovo Oblast TB dispensary supervisors conducted training for GHC chief doctors. The training focused on “The role of the GHC system in the detection and treatment of TB at the district level” (60 participants);
- **29 May:** WHO/CTRI RAMS/USAID ran a joint workshop on “The role of the local administration in TB control at the district level” for the heads of the regional administrations in Ivanovo Oblast (30 participants). The issue of ensuring the sustainability of the project was discussed.

## Orel Oblast

### 2002

- **10-11 December:** A joint WHO/CDC training course on “The introduction of the MDR-TB programme technical protocol for Orel and Ivanovo Oblasts” was conducted in Orel (55 participants);
- **16-20 December:** TB staff of the USAID-funded TB demonstration project in Ukraine visited the TB training and demonstration project in Orel. This was the second tour in two years aimed at exchange of practical experience of TB pilot project implementation.

### 2003

- **23 April:** Senior Orel TB staff provided basic refresher training in TB control for nurses from the Orel Oblast project (30 participants);
- **28-29 April:** Senior Orel TB staff conducted basic refresher training in TB laboratory diagnosis for laboratory technicians from the TB and GHC services entitled “The role of TB and clinical laboratories in TB control at the district level” (25 participants);

- **6-7 May:** Senior Orel Oblast TB dispensary staff conducted training for GHC nurses and “feldshers” from the Orel project entitled “The role of the GHC system in the detection and treatment of TB at the district level” (60 participants);
- **13-14 May:** Senior Orel TB staff conducted training for GHC physicians and clinical staff entitled “The role of the GHC system in the detection and treatment of TB at the district level” (60 participants).

### **Vladimir Oblast**

#### **2003**

- **18-19 March:** Senior Vladimir TB staff conducted a training course entitled “The role of TB and clinical laboratories in TB control at the district level” for heads of laboratories (60 participants);
- **15 April:** Senior Vladimir TB staff conducted a training course entitled “Social support for TB patients” for social workers and TB doctors in Vladimir (45 participants);
- **24-25 April:** Senior Vladimir TB staff conducted training for laboratory technicians from Vladimir Oblast TB dispensary entitled “The role of the TB and clinical laboratories in TB control at the district level” (60 participants);
- **20 May:** Senior Vladimir TB staff conducted training for GHC chief doctors involved in the Vladimir Oblast project entitled “The role of the GHC system in the detection and treatment of TB at the district level” (60 participants);
- **28 May:** WHO/CTRI RAMS/USAID ran a joint workshop on “The role of the local administration in TB control at the district level” for the heads of the regional administrations in Vladimir Oblast (30 participants). The sustainability of the TB project in view of the donor’s exit in 2004 was the main topic of discussion.

### **Chuvashia Republic**

#### **2002**

- **6 December:** WHO and RIPP MMA representatives conducted a training course for all TB specialists in the region, based on the results of the latest monitoring mission (11-15 November 2002). Representatives of other specialized services (psychiatric, obstetric-gynaecological, cardiopulmonary) and GHC attended the course (120 participants).

#### **2003**

- **13-17 and 20-24 January:** WHO/CDC/RIPP MMA jointly organized training in basic mycobacteriology for the civilian and prison services and guests from other regions. A CDC expert led two 1-week training courses for the heads of the mycobacteriological laboratory network (1<sup>st</sup> week) and for laboratory technicians (2<sup>nd</sup> week). In total 50 participants attended the courses.

### **7.3 Outreach and follow-up**

The outreach and follow-up activities implemented in the project sites according to the case management plans contribute to the improvement of treatment outcomes and the prevention of treatment interruptions. Furthermore, they aim to improve TB patients' adherence to treatment by addressing their social needs.

During the reporting period, additional efforts were made to ensure sustainability of the activities and strengthen the local ownership.

#### **Ivanovo Oblast**

Financing of the case management plan is being gradually shifted to the regional budget. The oblast administration continues to provide good nutritional support for patients and free bus transport. Home-based treatment for the most difficult TB patients (alcoholics, the unemployed and the mentally-ill) is provided by a team of doctors and nurses from the Ivanovo City Polyclinic. As a result of these outreach activities, there were no treatment interruptions during the first quarter of 2003.

#### **Orel Oblast**

In Orel Oblast, WHO is easing out of the joint project on social support for vulnerable TB patients, which was implemented in collaboration with the IFRC and the Russian Red Cross (RRC). The regional administration pledged funding to ensure the continuation of the project with the regional branch of the (RRC). This demonstrates local ownership of the social support programme by the regional administration and the sustainability of this demonstration pilot project, which was initiated jointly by WHO, Orel Oblast TB Dispensary, CDC, CTRI RAMS and IFRC/RRC.

The IFRC/RRC project now covers nine districts and the city of Orel. Since the start of the third project year in September 2002, 804 TB patients have been provided with social support (a food parcel twice a month and a hygiene parcel once a month). By the end of the current reporting period, 80 TB patients were covered by the social support programme. Now the TB and GHC services are responsible for Directly Observed Treatment (DOT), which was performed by the Red Cross nurses. Not a single defaulter has been reported since the start of the third phase of the project. MDR-TB patients have not been included so far.

Representatives of the IFRC and the RRC are actively involved in the TWG on "Social support for TB patients" in order to provide recommendations to the MoH for social support and outreach activities resulting from the lessons learnt from the Orel TB project.

#### **Chuvashia Republic**

The Chuvashian State Council dedicated its February 2003 session to social support for TB patients. It established a joint working group to fund a social support programme for staff and TB patients. The Ministry of Social Policy agreed to provide the administrative and logistical support for the implementation of the interdepartmental TB case management plan, which is co-funded by WHO. The cars purchased by WHO are used to facilitate the home-based treatment project and defaulter tracing.

## **Vladimir Oblast**

A prison component has now been included in the social support and outreach project in Vladimir Oblast. Psychologists and paramedical staff explain to soon-to-be-released prisoners, who have not yet completed their TB treatment, the importance of completing treatment after release. Health education materials are distributed and small incentives are given when a released prisoner attends a civilian TB dispensary.

Preliminary data show a substantial increase in post-release follow-up from 50-55% to 74% (first quarter of 2003).

### **7.4 Logistical support and procurement of goods and services**

To ensure the implementation of the DOTS and DOTS-Plus strategy, WHO has continued to provide the four participating regions (Orel, Vladimir, Ivanovo and Chuvashia), as well as CTRI RAMS, with specific goods and services.

The Procurement and Supply unit of the programme has begun a comprehensive inventory and analysis of the goods procured since the start of the projects.

#### **Laboratory equipment and supplies**

The delivery, assembly and launch of 11 biosafety cabinets and three clean bench laminars for the Vladimir civilian and prison sectors was a great contribution to the improvement of the bacteriological laboratory.

Twenty light binocular "Mikmed-2" microscopes were delivered to Chuvashia, accompanied by appropriate training for the laboratory personnel.

An assessment of needs and a market survey were conducted to map out the improvement in efficiency of the laboratory services in the Chuvashia project. Sputum containers and 10 additional microscopes are still in the procurement process.

#### **Anti-TB drugs**

With permission from the Green Light Committee, the WHO TB Programme imported, customs-cleared and delivered additional quantities of cycloserine provided by the procurement agency of Médecins Sans Frontières (MSF) for MDR-TB patients in Orel.

#### **Drug and supply management**

Reports on the drug stock for the first quarter of 2003 were received from the projects and processed.

#### **Office equipment**

In order to facilitate the exchange of information between the regions and the WHO collaborating centre at CTRI RAMS, WHO procured four personal computers and two

printers. To strengthen the capacity of the CTRI RAMS training centre, a scanner, photocopier, video and TV set were also supplied.

The demonstration centre in the Orel Oblast TB Dispensary was equipped with two personal computers, a multimedia projector, a copier, a refrigerator and some furniture.

In accordance with the case management plan, the Teikovo TB Dispensary in Ivanovo Oblast was equipped with a personal computer and a TV set.

### **Motor procurement**

Two "GAZEL" buses were delivered to the prisons in Chuvashia and Vladimir Oblast TB dispensaries respectively to facilitate monitoring missions to remote prisons and the transportation of sputum slides and samples to the central laboratories.

## **7.5 CDC technical assistance in collaboration with WHO**

During the reporting period, CDC continued to provide technical assistance with conducting a number of monitoring missions and training courses for trainers on a regular basis. The relevant activities are specified in sections 7.2 "Training" and 8.2 "On-site monitoring and technical assistance". The duty travel reports are available at the office of the DGSR.

In Orel Oblast, CDC and their regional TB and HIV counterparts developed a protocol to screen HIV-infected patients for latent TB infection by means of tuberculin skin testing (TST). Additionally, they compiled a questionnaire on TB infection risk factors. The purpose of the study is to evaluate TST in screening for TB in Russia. These data will be used in a second protocol on the effectiveness of isoniazid treatment of latent TB infection among HIV-infected individuals. Funding sources for the study have been identified.

In Orel Oblast, prison health staff cooperated with CDC experts to complete a study on TB prevalence in the prison sector. They were able to estimate the accuracy of TB screening tests. A cost-effectiveness study on screening in prisons is under consideration.

## **7.6 Federal level activities**

### **Capacity building and institutional support at the national level**

The WHO TB Programme has been working closely with the Federal Government and federal institutions.

Executive Order ("Prikáz") #109 issued by the MoH on "improvement of TB control activities in the Russian Federation" was signed by the Minister of Health on 21 March 2003. This is an important stage in the revision of the national TB control policy.

The 7<sup>th</sup> meeting of the HLWG on TB in Russia was held on 14 May 2003. It was chaired by Ms Sharapova, Deputy Minister of Health. The outcome of the activities of the TWGs in 2002 and the workplan for 2003 were discussed and approved. The Statute of the HLWG was adapted to integrate the mandate and scope of the TB Interagency Coordination Committee (TB-ICC). In accordance with its revised statute, the TB-ICC is an independent body, which meets annually and selects an Advisory Board to provide technical assistance with information exchange among partners and TB-ICC operations between meetings. The members of the TB-

ICC Advisory Board are the MoH, MoJ, USAID, CDC, MSF-Belgium, RRC, DFID and WHO.

The WHO TB team participated and assisted in the preparations for the All-Russia Annual Conference on MDR-TB and HIV for the heads of medical services and centres for sanitary and epidemiological surveillance. This conference was organized by the Directorate of Corrections of the MoJ from 16 to 19 December 2002. The objective was to discuss revised policies and endorse strengthened measures against the increasing combination of MDR-TB/HIV infection. WHO presented the internationally recommended management policies for MDR-TB and the new framework for TB/HIV. WHO also conducted a practical session on TB/HIV for the heads of the medical departments in Russia's prison system.

At the request of the Ministries of Health and Justice and within the framework of the TWG on "Lessons learnt from the implementation of the TB control projects", the first joint evaluation of the TB control pilot projects took place. In the last week of February 2003, representatives from the MoH, MoJ, WHO and three federal TB research institutes reviewed the pilot project in Tomsk Oblast, which started in 1994 and was the first TB pilot project in Russia.

The joint evaluation will help develop recommendations for the Ministries of Health and Justice in revising the national TB control policy and replicating the successful elements of pilot project implementation all over the country. The WHO/MoH standard list of criteria for project evaluation was amended upon completion of the evaluation in Tomsk and will form a new standard for the review of other pilot projects in the country.

A further consequence of the TWG and the evaluation will be the approval of training and demonstration sites for the expansion of the revised national TB policy in line with the WB loan and the five-year plan for "Guaranteed diagnostic and treatment procedures for TB patients and the development of the TB service in Russia".

The General Agreement between WHO and the MoJ on "Implementing the TB control programme in penal institutions reporting to the Directorate of Corrections of the MoJ" was signed by the Deputy Minister of Justice on 17 March 2003. The General Agreement was cleared by the Minister of Health and the two Moscow TB research institutes. It marked another milestone in reaching consensus and strengthened collaboration in the implementation of the WHO TB control strategy in the Russian prison system. The General Agreement will facilitate the implementation of the WHO recommendations in Russia's prison system and endorse the work of the TWG on "Organization of TB control activities in the penal institutions in the Russian Federation", which is relevant to the whole country.

Within the scope of activities of the "Cost-effectiveness of TB control in the Russian Federation" project, funded by DFID, there are ongoing activities in Orel and Ivanovo regions to develop policy recommendations on how to decrease the existing extensive reliance on inpatient care. In collaboration with the TB control project implemented by King's College, Imperial College and the London School of Hygiene and Tropical Medicine (the KIL TB consortium), terms of reference (TORs) were developed on the study of inpatient care in Ivanovo, Orel and Samara. In order to analyse which categories of patients are staying in hospital and why, a form for the census of patients using inpatient care was developed and pilot tested. The next steps will be to prepare case studies from Ivanovo and Orel regions in order to identify obstacles for optimization of inpatient care and propose ways of overcoming them.

In coordination with the "Cost-effectiveness of TB control in the Russian Federation" project, a draft model for the TB laboratory service, according to WHO recommendations for middle-

and low-income countries, was drawn up and distributed among partners in order to develop policy recommendations on how to improve the efficiency of the existing laboratory network. A number of parameters were included (workload, type of patients eligible for testing, frequency of examinations) and others added (number of peripheral and intermediate laboratories, number of personnel, etc.). The model will be adapted to conditions in Russia, using the example of Vladimir Oblast. A further case study will be undertaken in Vladimir Oblast to identify obstacles to rationalizing the laboratory system and to work out acceptable solutions.

The WHO EURO TB Control Programme has assisted its partners with overcoming communication and technical problems concerning visas and with practical arrangements for scientific and educational events worldwide.

The WHO TB team has also provided technical assistance to the WHO collaborating centre at CTRI RAMS on a regular basis (see 7.4).

Assistance with preparations for the meeting on DOTS-Plus in Seoul, Korea, scheduled for 24-26 April 2003, was rendered to Russian TB experts, MoH and MoJ representatives and chief doctors from the pilot territories, representing both civil and penal institutions. The meeting was cancelled due to the outbreak of Severe Acute Respiratory Syndrome (SARS).

The WHO EURO TB Control Programme allocated funds for internet access at RIPP MMA to increase the access of leading TB experts to up-to-date knowledge and literature.

### **Support to the World Bank**

In December 2002, the WB loan for TB/HIV was approved by the Russian Government and in March 2003, the WB Board of Directors approved the loan. WHO provided technical assistance throughout the negotiations and WHO recommendations on surveillance, MDR-TB management and laboratory standards in TB control were incorporated into the technical documents.

The MoH five-year plan for “Guaranteed diagnostic and treatment procedures for TB patients and the development of the TB service in Russia”, based on the WHO TB control strategy, was finalized and approved at the 7<sup>th</sup> HLWG meeting on 14 May 2003. This plan will serve as the basis for a joint application to the Global Fund to Fight AIDS, Tuberculosis and Malaria.

The five-year plan will also serve as a framework to develop the implementation plan for the WB project.

### **Information and education**

The materials below have been translated into Russian, published and widely distributed:

- 1) “Laboratory services in TB control (Parts 1-3)” (WHO/TB/98.258)
- 2) “TB/HIV – A clinical manual” (WHO/TB/96.200)
- 3) “Treatment of TB: Guidelines for national programmes” (WHO/TB/97.220)
- 4) Modules for “The management of TB at the district level”

The TB glossary is in the final stages of publishing.

WHO and its national, regional and international partners in TB control successfully organized a wide range of activities for the 2003 World TB Day campaign. The key events were: a press conference on 21 March, a charity concert on 24 March, a set of TB-related programmes for broadcast on the federal channels, extensive radio coverage, a forum for cured TB patients, a competition among students and young researchers for the best paper in the field of TB, and poster design, poetry and story-writing contests for the students of 104 TB boarding schools, Moscow's art schools and secondary schools in 26 regions across Russia. A large number of booklets, leaflets and posters, bookmarks and calendars were produced and widely distributed to both WHO-supported project territories and other Russian regions.

On 8 April, Dr W. Jakubowiak, WHO EURO TB Control Programme Coordinator, and the WHO National Professional Officer made presentations at the 10<sup>th</sup> All-Russia Congress "Man and Drugs" in Moscow. The presentations focused on the WHO recommendations for adequate treatment of MDR-TB and management of second-line TB drugs.

The WHO Moscow Office is participating as a member of the Organizing Committee for the preparation of the 3<sup>rd</sup> Congress of the International Union Against TB and Lung Disease and the 14<sup>th</sup> National Congress on Lung Disease, scheduled for 23-26 June 2004 in Moscow.

The WHO Moscow Office is supporting the organization of the VII Congress of Russian Phthisiatrists, scheduled for 3-5 June 2003 in Moscow, and facilitating the participation of international speakers.

Different leading international TB specialists will focus on evidence-based and cost-effective approaches to TB control, including organizational aspects, laboratories, chemotherapy and TB/HIV in their presentations at the Congress.

## **8. MANAGEMENT AND MONITORING**

### **8.1 Management**

One international TB Project Manager is responsible for implementation and monitoring under the supervision of the TB Programme Coordinator. The TB Project Manager is assisted with implementation, evaluation, procurement and customs clearance of imported goods by three TB Project Assistants (one TB Project Assistant is moving to another project within the WHO TB Control Programme in the gradual handover of responsibility to the regions and the supervising federal TB research institutes). A part-time Technical Clerk supervises supply and procurement issues. A Financial Assistant and a part-time Office Administrator are responsible for financial and administrative issues.

In May 2003, the TB Assistants participated in the "Management of MDR-TB" training course in order to strengthen the capacity for supervision, monitoring and evaluation within the WHO Moscow Office.

### **8.2 On-site monitoring and technical assistance**

#### **Ivanovo Oblast**

- **Quarter 1, 2003:** The National Institute on Alcohol Abuse and Alcoholism and the Universities of John Hopkins and Wisconsin (Madison) began a collaborative project on

the management of alcoholism in TB patients. The project aims to improve compliance with TB treatment.

- **3-7 February:** WHO/CTRI RAMS/CDC undertook a joint monitoring mission to the civilian project component. The treatment success rate for newly detected TB patients registered in the first quarter of 2002 remained stable at 71%. The death rate decreased to 5% and no treatment interruptions were recorded. The failure rate increased to 20%.
- **2 April:** A meeting of the Interdepartmental Commission on TB Control, chaired by the Governor of Ivanovo Oblast, took place. The oblast administration confirmed it would continue to fund the TB control project for the year 2003 (providing free bus transport and adequate nutrition for TB patients). Measures to improve early case detection through the GHC system were discussed.
- **7-11 April:** A joint WHO/CTRI RAMS/Federal Penitentiary System (GUIN) team conducted a monitoring mission to the penitentiary sector.

The epidemiological and performance indicators show improvement in the implementation of the project. The TB notification rate decreased from 78.3 to 64.6/100 000 in 2002; bacteriological confirmation among new sputum smear positive cases increased to 66.3% (fourth quarter of 2002); the sputum conversion rate rose to 85% (second quarter of 2002). The percentage of sputum smear positive cases detected through the GHC system increased from 58.5% to 62.3% (fourth quarter of 2002).

The remaining challenges are the high death and failure rates. The initial MDR-TB rate is 6%. There is also a need to centralize the management of second-line TB drugs at the oblast TB dispensary.

In the prison sector, DOT should be strengthened and training in the appropriate use of second-line TB drugs is needed.

The results of the monitoring mission were discussed with the Health Commissioner and the chief of the prison system in Ivanovo Oblast.

### Orel Oblast

- The WHO global target on treatment success, namely 85% cure rate among new sputum smear positive cases, was reached for the first time among all TB control projects in the Russian Federation (first quarter of 2002)<sup>1</sup>. Bacteriological confirmation of new cases remains very high, 63% by smear and 78% by culture, which indicates a high level of performance by laboratories and the TB suspect referral system.
- **18-21 March:** CTRI RAMS/CDC carried out a joint DOTS-Plus monitoring mission to the TB control project in Orel Oblast to evaluate the initial stage of the implementation of DOTS-Plus in the MDR-TB project. The Technical Protocol is properly observed and the doctors are managing the side-effects of the toxic second-line TB drugs well. 60 MDR-TB patients have been enrolled so far.

The Orel TB training and demonstration site provided follow-up training in the clinical management of MDR-TB within the framework of their activities.

<sup>1</sup>Treatment success of 86% was based on culture, while treatment success by smear was 81.8%.

- **21 April and 22 May:** WHO, USAID and CDC Moscow representatives met with the Deputy Governor and the Health Commissioner to initiate discussions for a gradual handover of external funding activities to the regional and district budget-holders. The meetings were very constructive and shortly afterwards, part of the activities were taken over by the local administration (social support and running costs for laboratories). A Memorandum of Understanding will be developed for a stepwise exit strategy to ensure the sustainability of the project.

### **Vladimir Oblast**

- **10-21 February:** WHO/CDC carried out a joint monitoring mission to the project in Vladimir Oblast. The oblast TB dispensary moved into a new building, thus ensuring better conditions. The Ministry of Justice Correctional Department (UIN) laboratory shows high efficiency, with TB diagnosis verification up to 54-56% by culture (first-third quarters of 2002).
- **21 February:** WHO, MoH, USAID and CTRI RAMS participated in the Interdepartmental Commission, which was chaired by the Governor of Vladimir Oblast for the first time since the implementation of the project. This was a long-awaited turning point in the political commitment of the oblast administration.
- **12-16 May:** WHO/CTRI RAMS carried out a joint monitoring mission to the project in Vladimir Oblast. The mission reported no deviations from routine programme implementation. Treatment success in the first quarter of 2002 was 70%, treatment failure amounted to 10%, and death and default rates were 13% and 5% respectively.

### **Chuvashia Republic**

- During the first monitoring mission, 24-28 March 2003, the President of Chuvashia Republic opened the newly refurbished shelter for homeless TB patients. The President remains very much involved in the supervision of the project.
- The Chuvashia Republic MoH nearly doubled its TB budget for 2003, which allowed the renovation of laboratories necessary to strengthen the microbiology component of the project.
- **28-29 January:** WHO representatives participated in the State Council session of the Republic of Chuvashia where the existing legal ways to support TB patients and personnel involved in TB control were discussed. WHO clearly stated its readiness to support social measures throughout project implementation.
- **27 February:** WHO representatives took part in the State Council working group on social support for TB patients. WHO, the MoH and Ministry of Social Policy discussed cooperation in social support for TB staff and patients.
- **24-28 March:** WHO/CTRI RAMS/CDC/MoJ undertook a joint monitoring mission to Chuvashia. Significant progress was noted since the previous monitoring mission (11-15 November 2002). The DOT component has been strengthened. Integration of the GHC work into TB control is being organized to find more cases. The Technical Protocol is followed as the diagnostic and treatment guide. There are still a relatively high number of individualized treatments (10% among new cases) and many short

treatment interruptions. Sputum smear conversion of the first group of sputum smear positive patients enrolled in the project, third quarter of 2002, is high at 81%;

## **9. LOCAL COORDINATION**

The WHO Moscow Office gives priority to providing technical support in coordinating the activities of international partners and mobilizing funds for TB control activities in Russia. The experience gained from the TB demonstration projects coordinated by WHO is shared with the TB control projects supported by IFRC, and training and monitoring missions are performed jointly whenever possible.

The DFID-funded TB project activities (“Cost-effectiveness of TB control in the Russian Federation”) and the HLWG on tuberculosis in the RF are closely linked to the TB demonstration projects in order to include regional experience in the revision of the national TB policy and to field-test the new recommendations formulated by the TWGs.

TB interagency meetings are held monthly at the WHO Moscow Office to facilitate information exchange, consultation and discussions among international agencies and partners.

The TB-Interagency Coordination Committee (ICC) set up an Advisory Board, which holds telephone conferences each quarter to improve coordination of the internationally supported TB control activities in Russia.

The Directors of the USAID-funded TB control projects are invited to participate in the different TWGs. This, also ensures that the experience of the demonstration projects is incorporated into the revision of the national TB control policy.

## **10. DIFFICULTIES AND CHALLENGES FACED**

1. Russia is still facing a TB epidemic with a 2002 incidence and mortality of 84.9/100 000 and 21.5/100 000 respectively, according to preliminary data. With MDR-TB and HIV on the rise, the TB situation may worsen dramatically in the future. According to data provided by RIPP MMA, there are already 6000 co-infected TB/HIV patients in Russia as of today, compared to 753 in 2000.

Meanwhile, the Russian Ministries of Health and Justice are distributing second-line TB drugs in the regions without training in the effective use of these drugs, opening the way for super-resistant, incurable forms of TB.

Cumulative number of HIV positive patients (Source: Federal AIDS Centre. <http://www.hivrussia.org/index.php>)

Civilian sector	HIV 2000	HIV 2001	HIV 2002
Ivanovo Oblast	82	1392	1975
Vladimir Oblast	391	795	1071
Orel Oblast	206	463	595
Chuvashia Republic	39	274	382
Russian Federation	90 248	178 968	228 588

2. The progress achieved with the revision of the Russian national TB control policy lacks sustainability and needs continued support and attention from the international community. The underlying reasons for this are:
  - The revision of the national TB control policy is a time-consuming process, performed by a limited number of Russian experts in addition to their usual work;
  - The new MoH Executive Order on TB control, although signed and effective, has to be implemented nationwide, which requires a lot of training, education and monitoring;
  - The WB project on TB/HIV does not have a mechanism for its implementation compliant with the WHO-recommended TB control strategy countrywide;
  - Absence of a national reference laboratory and lack of systematic quality assurance.
  
3. Federal monitoring, supervision and laboratory activities still need to be strengthened for the following reasons:
  - The CTRI RAMS/WHO collaborating centre has not yet received a licence from the Ministry of Education to conduct training in public health management and epidemiology;
  - Insufficient knowledge of modern epidemiology, public health management, cost-effective approaches and WHO recommendations for TB control;
  - Continuing lack of consensus on such crucial TB control elements as active case-finding strategy, recording and reporting, and standard laboratory techniques.
  
4. More time is needed to develop sustainable TB control models in the regions due to:
  - Prevailing TB management stereotypes, especially among senior TB staff;
  - The DOTS-Plus project in Orel Oblast was delayed because the Russian Pharmacopoeia still does not accept as national policy the internationally recommended treatment regimens using second-line TB drugs;
  - The responsibility for purchase of TB drugs has shifted from the MoH to regional budgets, which is a potential threat to TB control in Russia in the near future;

- The refurbishment of the laboratory ward in the new Vladimir Oblast TB dispensary will not be finished until the end of the second quarter of 2003;
- The DOTS-Plus programme in Ivanovo Oblast has yet to begin due to the low cure rates previously reported.

## **11. FUTURE PLANS/NEXT STEPS**

### **11.1 Federal/national level**

- To give priority to the TWG on management of MDR-TB towards MoH approval of internationally recommended treatment regimens for MDR-TB.
- To contribute to the work of the TWGs on surveillance and social support, case-finding and TB/HIV, using the practical experience gained from the implementation of the demonstration projects.
- To organize advanced training for senior staff in the CTRI RAMS/WHO collaborating centre in order to strengthen the federal capacity for supervision and monitoring, as well as increase the pool of supervisors and trainers.
- To organize a training course on “Second-line TB drug management” for both federal and regional level representatives in June 2003 in collaboration with the Green Light Committee, Management Sciences for Health and the MMA.
- To support the 7<sup>th</sup> Congress of Russian Phthisiatrists in Moscow, scheduled for 3-5 June 2003, where WHO and international TB consultants will promote evidence-based approaches to TB control activities.
- To support the participation of the chief TB specialist and chief epidemiologist of the MoH in the annual Workshop for National TB Programme Managers organized by WHO and the Royal Netherlands TB Association in Wolfheze, Holland, 14-18 June 2003.
- To support the participation of selected leaders from the MoH and the federal TB research institutes in the 34<sup>th</sup> World Conference on Lung Health organized by the International Union Against TB and Lung Disease, to be held in Paris, 29 October to 2 November 2003.

### **11.2 Regional level**

#### **Orel Oblast**

- To evaluate the sputum smear conversion report of the first cohort of enrolled MDR-TB patients.
- To consolidate the lessons learnt from the joint IFRC/RRC programme on social support and patient education.

- To organize a joint WHO/USAID workshop for chiefs of the district administrations and their deputies responsible for social support in order to increase ownership of the TB demonstration projects.
- To organize training for TB specialists, using the new WHO/CDC modules on “Management of TB at the district level”.
- To conduct joint CDC/CTRI RAMS monitoring missions on DOTS and DOTS-Plus implementation.

#### **Ivanovo Oblast**

- To promote an intersectoral approach in the region through continued participation of the WHO TB Control Programme in the Russian Federation in the Interdepartmental TB Control Commission chaired by the Governor.
- To conduct jointly with CTRI RAMS the second biannual DOTS monitoring mission;
- To provide technical assistance to the health department in elaborating staff incentives for GHC workers aimed at improving case-finding.
- To continue to help the senior TB staff of the Oblast TB Dispensary with their application to the Green Light Committee in order to get the DOTS-Plus project approved and start managing MDR-TB.

#### **Vladimir Oblast**

- To organize training for phthisiologists, using the new WHO/CDC modules on “Management of TB at the district level”.
- To convince the Directorate of Corrections of the MoJ to reduce the spread of infection by separating MDR-TB patients from susceptible patients in the TB colony prison.
- To follow-up on quality control for laboratory performance in penal institutions.

#### **Chuvashia Republic**

- To complete the procurement of the second batch of binocular microscopes and sputum containers in order to increase sputum smear microscopy.
- To procure laboratory equipment for bacteriological laboratories in the civilian and prison services.
- To evaluate the treatment outcomes of the first cohort of patients enrolled in July 2002.
- To conduct the second joint WHO/CDC DOTS monitoring mission in 2003.

#### **All regions**

- To organize training in operational research to assist regional TB counterparts to identify the main obstacles in reaching the WHO target of 85% treatment success.

- To introduce early cohort reviews during plenary staff meetings in the different regions for better detection in case management and troubleshooting.
- To organize annual refresher training courses in modern approaches to TB control designed for paramedic and general and primary health care staff.
- To finalize the preparation of new health education pamphlets for distribution to the general public.
- To organize the quarterly Directors' meeting for chief TB doctors from both the civilian and prison services in order to encourage local ownership at the regional level of the TB demonstration projects.
- To continue drafting the publication "Lessons learnt from DOTS Implementation within three TB control demonstration projects: Ivanovo, Orel and Vladimir Oblasts".

**Attachment 1. Epidemiological data on TB case-finding in Ivanovo, Orel and Vladimir Oblasts and Chuvashia Republic, civilian and prison sectors (tables)**

**Ivanovo Oblast 2002-2003**

**TB Case Finding**

**Civilian sector**

	Quarter 1 - 2002		Quarter 2 – 2002		Quarter 3 – 2002		Quarter 4 – 2002		Quarter 1 - 2003	
	Abs. number	%	Abs. Number	%	Abs. number	Abs. number	Abs. number	%	Abs. number	%
Number of registered patients (NEW)	187		138		122		98		169	
Number of smear positive	55	29%	61	44%	57	47%	65	66%	76	45%
Number of registered patients (Relapses)	25		21		16		19		28	
Number of smear positive	12	48%	14	67%	7	44%	15	79%	10	36%
Number of registered patients (Extra-pulmonary)	14		15		23		16		13	
Total cases registered	226		174		161		133		210	
Total cases 2002	694									

## Ivanovo Oblast – 2002

## TB Case Finding

## Prison service

	Quarter 1 - 2002		Quarter 2 – 2002		Quarter 3 – 2002		Quarter 4 – 2002		Quarter 1 - 2003	
	Abs. number	%	Abs. Number	%	Abs. number	Abs. number	Abs. number	%	Abs. number	%
Number of registered patients (NEW)	37		20		39		52		34	
Number of smear positive	8	22%	4	20%	4	10%	16	30%	7	20.5
Number of registered patients (Relapses)	16		14		5		13		12	
Number of smear positive	6	37.5%	10	71%	2	40%	2	15%	3	25
Number of registered patients (Extra-pulmonary)	1		-		-		2		1	
Total cases registered	54		34		44		67		47	
Total cases 2002	199									

## Orel Oblast 2002– 2003

## TB Case Finding

## Civilian sector

	Quarter 1 - 2002		Quarter 2 – 2002		Quarter 3 – 2002		Quarter 4 – 2002		Quarter 1 - 2003	
	Abs. number	%	Abs. Number	%	Abs. number	Abs. number	Abs. number	%	Abs. number	%
Number of registered patients (NEW)	112		152		115		113		113	
Number of smear positive	58	52%	93	61%	64	56%	71	62,8%	68	60.2%
Number of registered patients (Relapses)	6		9		10		4		6	
Number of smear positive	4	67%	5	55.5%	6	60%	1	25%	4	66.7%
Number of registered patients (Extra-pulmonary)	8		15		5		9		9	
Total cases registered	126		176		130		126		128	
Total cases 2002	558									

## Orel Oblast 2002–2003

## TB Case Finding

## Prison service

	Quarter 1 - 2002		Quarter 2 - 2002		Quarter 3 - 2002		Quarter 4 - 2002		Quarter 1 - 2003	
	Abs. number	%	Abs. Number	%	Abs. number	Abs. number	Abs. number	%	Abs. number	%
Number of registered patients (NEW)	15		16		13		23		13	
Number of smear positive	7	47%	4	25%	3	23%	7	30,4%	2	15.4%
Number of registered patients (Relapses)	1		3		1		4		0	
Number of smear positive	0	0%	2	66%	1	100%	1	25%	0	
Number of registered patients (Extra-pulmonary)	0		0		0		0		0	
Total cases registered	16		19		14		27		13	
Total cases 2002	76									

## Vladimir oblast 2002-2003

## TB Case Finding

## Civilian service

	Quarter 1 - 2002		Quarter 2 - 2002		Quarter 3 - 2002		Quarter 4 - 2002		Quarter 1 - 2003	
	Abs. number	%	Abs. Number	%	Abs. number	Abs. number	Abs. number	%	Abs. number	%
Number of registered patients (NEW)	190		209		154		246		215	
Number of smear positive	93	49%	121	58%	79	51%	126	51%	104	48.3%
Number of registered patients (Relapses)	41		38		35		43		31	
Number of smear positive	27	66%	15	39%	23	66%	22	51%	19	61%
Number of registered patients (Extra-pulmonary)	13		33		16		33		26	
Total cases registered	244		280		205		322		272	
Total cases 2002	<b>1051</b>									

## Vladimir oblast 2002-2003

## TB Case Finding

## Prison service

	Quarter 1 - 2002		Quarter 2 - 2002		Quarter 3 - 2002		Quarter 4 - 2002		Quarter 1 - 2003	
	Abs. number	%	Abs. Number	%	Abs. number	Abs. number	Abs. number	%	Abs. number	%
Number of registered patients (NEW)	76		87		63		68		82	
Number of smear positive	21	28%	18	21%	5	16%	11	16%	12	15%
Number of registered patients (Relapses)	33		26		26		36		48	
Number of smear positive	15	45%	9	35%	5	19%	13	36%	14	29%
Number of registered patients (Extra-pulmonary)	2		3		1		3		2	
Total cases registered	111		116		90		107		132	
Total cases 2002	424									

## Chuvashia Republic– 2002

## TB Case Finding

## Civilian service

	Quarter 1 - 2002		Quarter 2 – 2002		Quarter 3 – 2002		Quarter 4 – 2002		Quarter 1 - 2003	
	Abs. number	%	Abs. Number	%	Abs. number	Abs. number	Abs. number	%	Abs. number	%
Number of registered patients (NEW)					126		171		220	
Number of smear positive					67	53%	60	35%	102	46%
Number of registered patients (Relapses)					30		25		33	
Number of smear positive					17	56%	14	56%	21	64%
Number of registered patients (Extra-pulmonary)					12		12		19	
Total cases registered					168		208		272	
Total cases 2002										

## Chuvashia – 2002

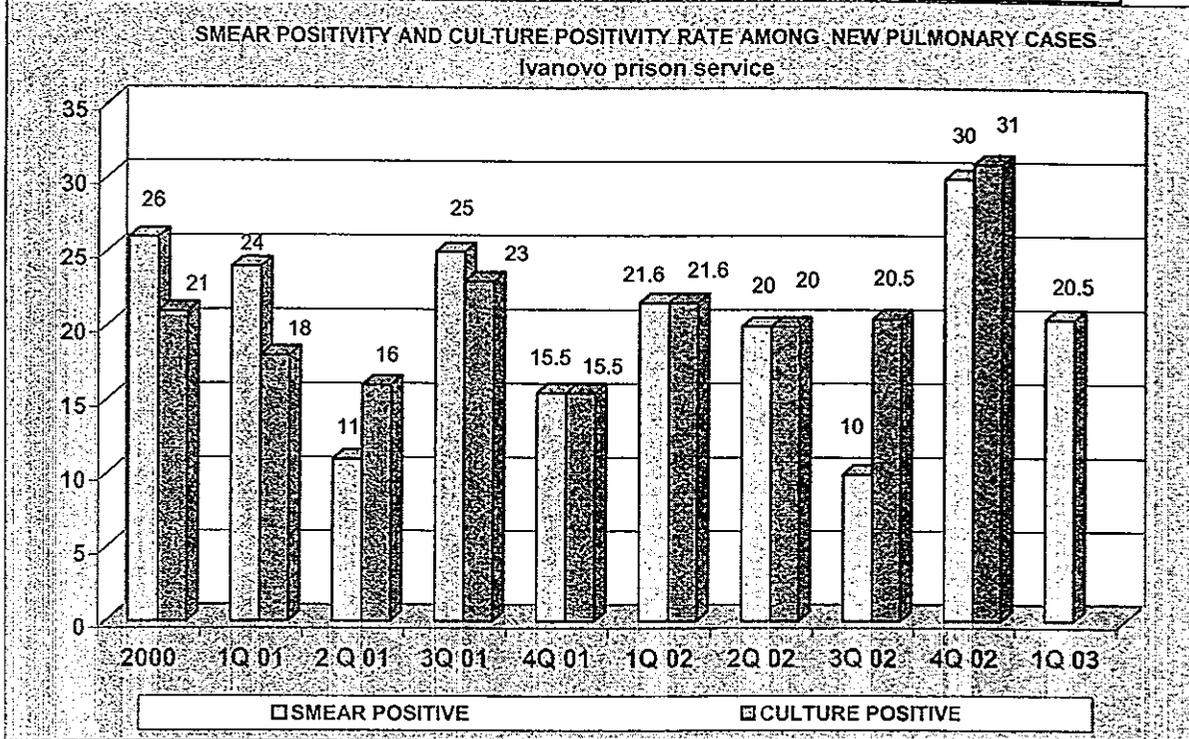
## TB Case Finding

## Prison service

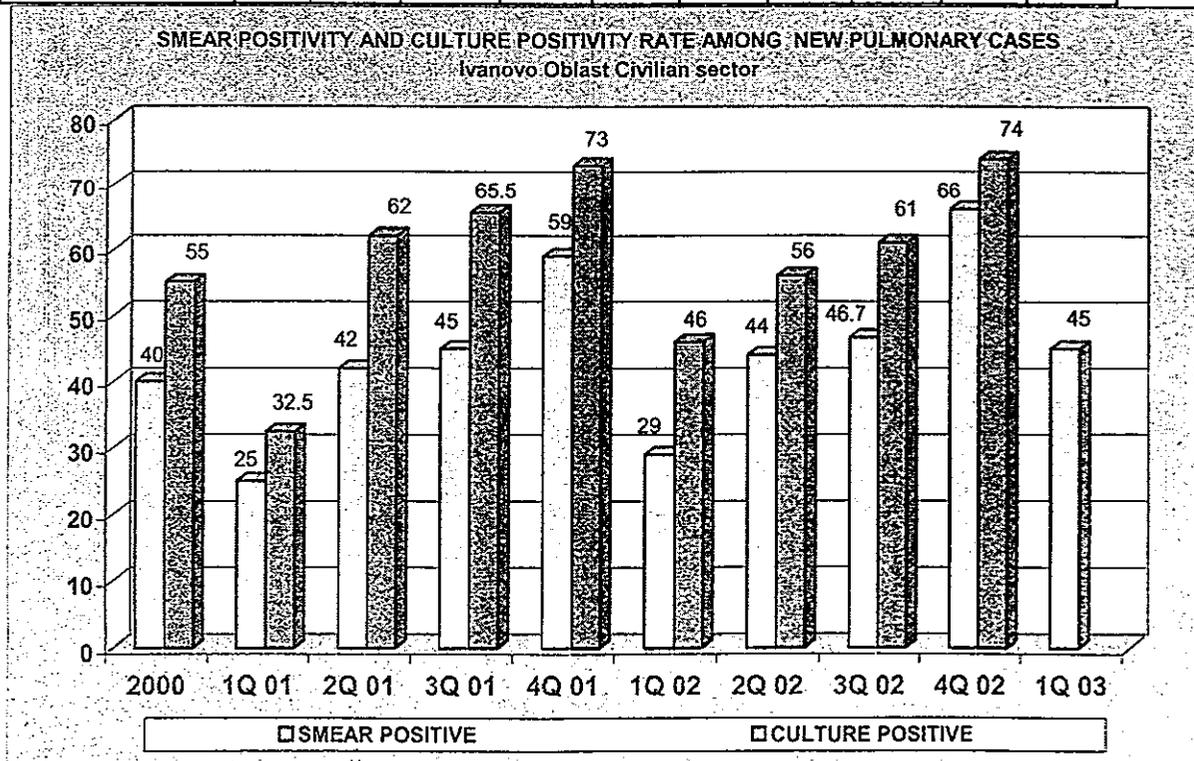
	Quarter 1 - 2002		Quarter 2 – 2002		Quarter 3 – 2002		Quarter 4 – 2002		Quarter 1 - 2003	
	Abs. number	%	Abs. Number	%	Abs. number	Abs. number	Abs. number	%	Abs. number	%
Number of registered patients (NEW)					10		41		31	
Number of smear positive					2	20%	8	19.5%	0	0%
Number of registered patients (Relapses)					10		6		9	
Number of smear positive					6	60%	3	50%	4	44%
Number of registered patients (Extra-pulmonary)					0		0		0	
Total cases registered					20		47		40	
Total cases 2002										

**ATTACHMENT 2. EPIDEMIOLOGICAL DATA ON SPUTUM SMEAR AND CULTURE POSITIVE CASES IN IVANOVO, OREL, VLADIMIR OBLASTS AND CHUVASHIA REPUBLIC, CIVILIAN AND PRISON SECTORS**

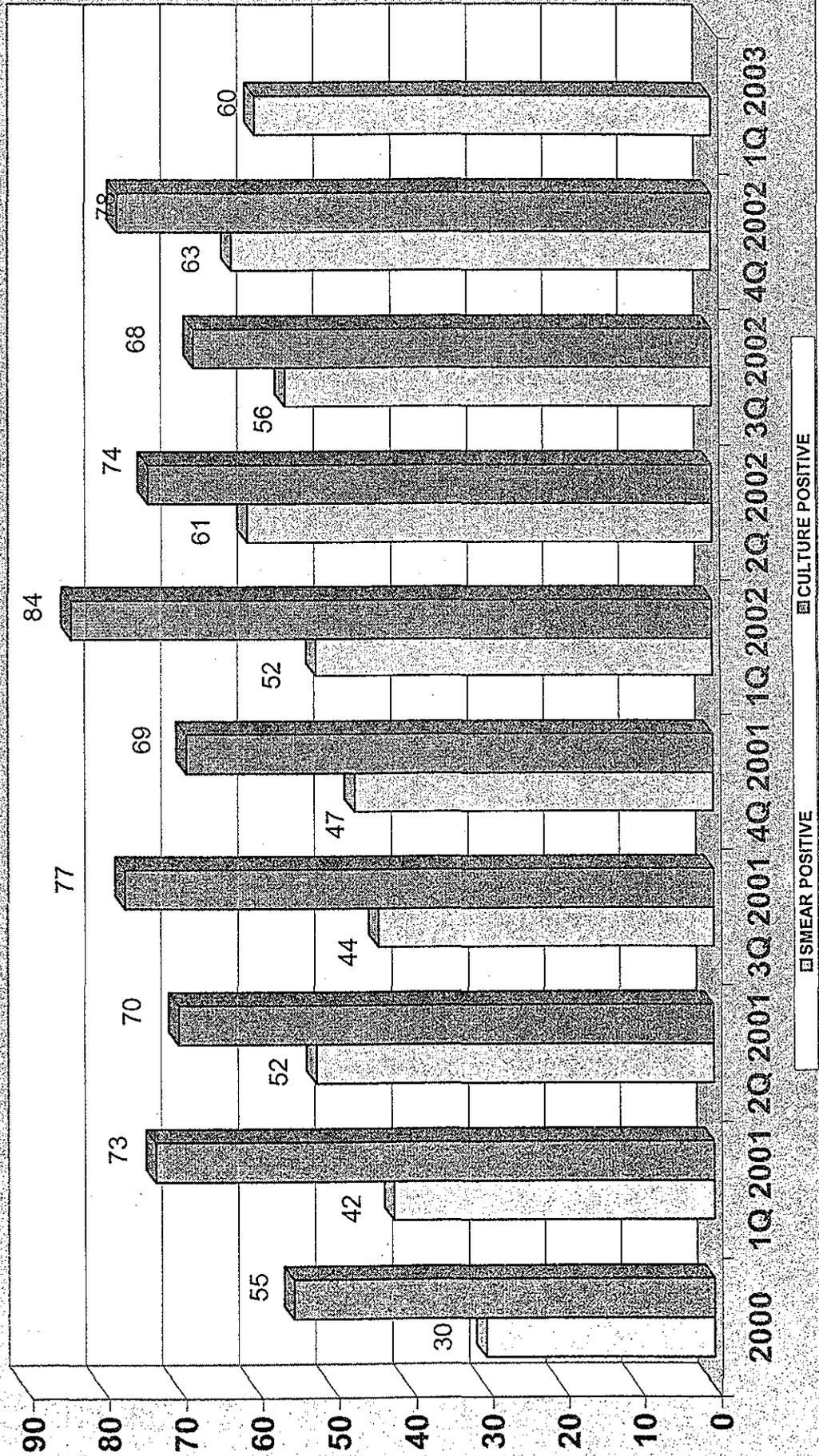
	2000	1Q 01	2 Q 01	3Q 01	4Q 01	1Q 02	2Q 02	3Q 02	4Q 02	1Q 03
<b>SMEAR POSITIVE</b>	26	24	11	25	15.5	21.6	20	10	30	20.5
<b>CULTURE POSITIVE</b>	21	18	16	23	15.5	21.6	20	20.5	31	



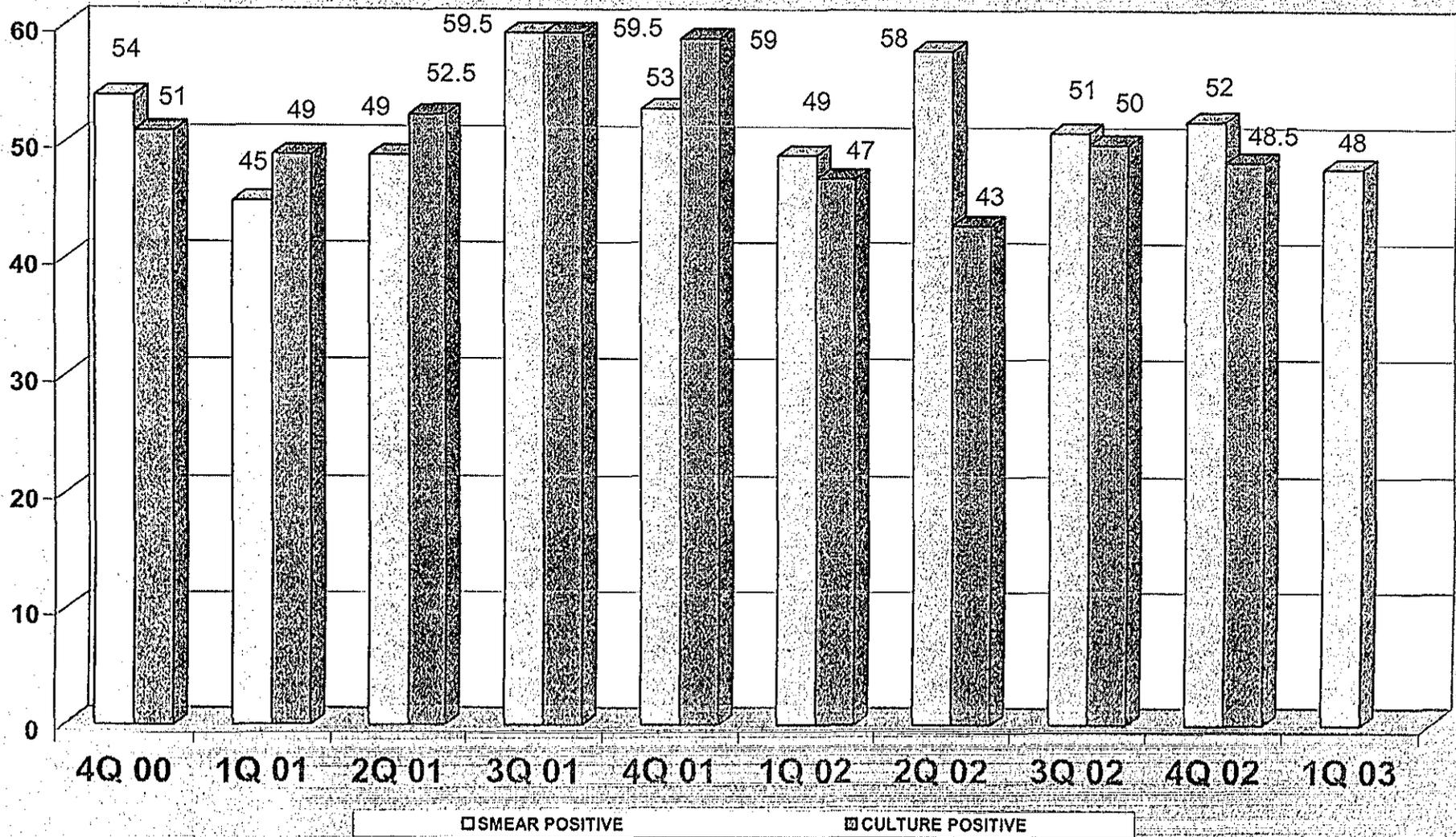
	2000	1Q 01	2Q 01	3Q 01	4Q 01	1Q 02	2Q 02	3Q 02	4Q 02	1Q 03
<b>SMEAR POSITIVE</b>	40	25	42	45	59	29	44	46.7	66	45
<b>CULTURE POSITIVE</b>	55	32.5	62	65.5	73	46	56	61	74	



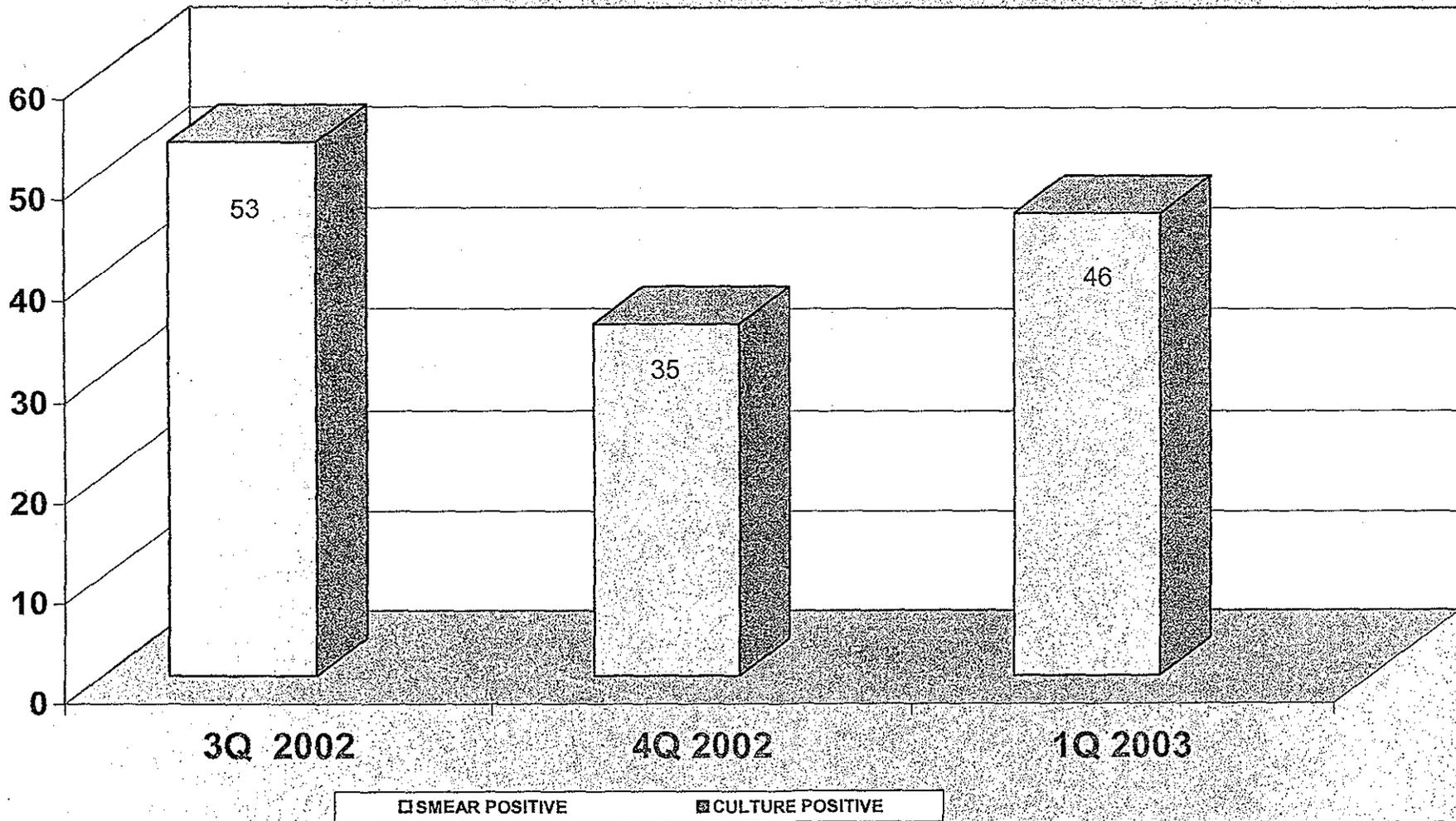
**SMEAR POSITIVITY AND CULTURE POSITIVITY RATE AMONG ALL NEW PULMONARY CASES OREL CIVILIAN SERVICE**



**SMEAR POSITIVITY AND CULTURE POSITIVITY RATE AMONG NEW PULMONARY CASES**  
 Vladimir Oblast civilian service



### SMEAR POSITIVITY AND CULTURE POSITIVITY RATE AMONG NEW PULMONARY CASES, CHUVASHIA CIVILIAN SERVICE



**Attachment 3. Sputum smear conversion rates among new cases in Ivanovo, Orel and Vladimir Oblasts and Chuvashia Republic, civilian and prison sectors (tables)**

**Ivanovo Oblast – 2002**

**Smear conversion**

**Civilian service**

Quarter 1	Number of cases	Smear conversion						Smear not done	Remains smear-positive	Total
		2 months		3 months		4 months				
		Number	%	Number	%	Number	%			
New cases	55	34	62	47	85	-	-	-	8	55
Relapses	12	-	-	5	42	6	50	1	5	12
Other retreatment cases	14	-	-	3	22	6	43	3	5	14
<b>Quarter 2</b>										
New cases	61	40	65,5	52	85	-	-	6	3	61
Relapses	14	-	-	11	78.5	-	-	-	3	14
Other retreatment cases	7	-	-	3	43	4	57	-	3	7
<b>Quarter 3</b>										
New cases	57	34	60	50	88			7	0	57
Relapses	7	-	-	5	71	5	71	2	0	7

Other retreatment cases	6	-	-	2	33	2	33	2	2	6
<b>Quarter 4</b>										
New cases	65	36	55	52	80	-	-	7	6	65
Relapses	15	-	-	8	53	10	67	1	4	15
Other retreatment cases	5	-	-	4	80	4	80	1	-	5
<b>Total 2002</b>										
New cases	238	144	60.5	201	84			20	17	238
Relapses	48	-	-	31	64	32	67	4	12	48
Other retreatment cases	32	-	-	12	37	16	37	6	10	32

Ivanovo Oblast – 2002

Smear conversion

Prison service

Quarter 1	Number of cases	Smear conversion						Smear not done	Remains smear-positive	Total
		2 months		3 months		4 months				
		Number	%	Number	%	Number	%			
New cases	8	7	87,5	-	-	X	X	-	1	8
Relapses	6	X	X	6	100	-	-	-	-	6
Other retreatment cases	4	X	X	4	100	-	-	-	-	4
<b>Quarter 2</b>										
New cases	4	1	25	4	100	X	X	-	-	4
Relapses	10	X	X	8	80	1	90	-	1	10
Other retreatment cases	2	X	X	2	100	-	-	-	-	2
<b>Quarter 3</b>										
New cases	4	2	50	3	75			1		4
Relapses	2			2	100	2	100			2
Other retreatment cases	1			1	100	1	100			1
<b>Quarter 4</b>										

New cases	16	12	75	14	87.5	x	x	1	1	16
Relapses	2	x	x	2	100	2	100	0	0	2
Other retreatment cases	1	x	x	1	100	1	100	0	0	1
<b>Total 2002</b>										
New cases	32	22	69	28	87.5	x-	x-	2	2	32
Relapses	20	X	X	18	90	19	95	0	1	20
Other retreatment cases	8	X	X	8	100	8	100	0	0	8

Orel Oblast – 2002

Smear conversion

Civilian service

Quarter 1	Number of cases	Smear conversion						Smear not done	Remains smear-positive
		2 months		3 months		4 months			
		Number	%	Number	%	Number	%		
New cases	58	33	57%	40	69%	-	-	3	15
Relapses	4	-	-	3	75%	3	75%	-	1
Other retreatment cases	5	-	-	5	100%	5	100%		
Quarter 2									
New cases	93	55	59%	67	72%	-	-	11	15
Relapses	5	-	-	1	20%	3	60%		2
Other retreatment cases	6	-	-	5	83%	5	83%	1	

Quarter 3	Number of cases	Smear conversion						Smear not done	Remains smear-positive
		2 months		3 months		4 months			
		Number	%	Number	%	Number	%		
New cases	64	32	50%	45	70,3%	-	-	10	9
Relapses	6	-	-	1	16,6%	3	50%	-	3
Other retreatment cases	6	-	-	4	66,6%	6	100%	-	-
<b>Quarter 4</b>									
New cases	70*	41	58,6%	53	75,7%	-	-	7	10
Relapses	1	-	-	1	100%	1	100%	0	0
Other retreatment cases	11	-	-	9	81,8%	10	90,9%	0	1
<b>Total 2002</b>									
New cases	285	161	56,5%	205	71,9%	-	-	31	49
Relapses	16	-	-	6	37,5%	10	62,5%	0	6
Other retreatment cases	28	-	-	23	82,1%	26	92,9%	1	1

\* One patient was excluded because of diagnosis of cancer

Orel Oblast – 2002

Smear conversion

Prison service

Quarter 1	Number of cases	Smear conversion						Smear not done	Remains smear-positive
		2 months		3 months		4 months			
		Number	%	Number	%	Number	%		
New cases	7	5	71	7	100	-	-		
Relapses	0	-	-	0	0	0	0		
Other retreatment cases	0	-	-	0	0	0	0		
Quarter 2									
New cases	4	3	75	3	75	-	-	1	
Relapses	2	-	-	1	50	1	50		1
Other retreatment cases	0	-	-	0	0	0	0		

48

Quarter 3	Number of cases	Smear conversion						Smear not done	Remains smear-positive
		2 months		3 months		4 months			
		Number	%	Number	%	Number	%		
New cases	3	3	100%	3	100%	-	-	-	-
Relapses	1	-	-	1	100%	1	100%	-	-
Other retreatment cases	-	-	-	-	-	-	-	-	-
<b>Quarter 4</b>									
New cases	7	7	100%	7	100%	-	-	-	
Relapses	1	-	-	0				-	1 (died)
Other retreatment cases	0	-	-	-	-	-	-	-	
<b>Total 2002</b>									
New cases	21	18	85.7%	20	95.2%	-	-	1	
Relapses	4	-	-	2	50%	2	50%		2
Other retreatment cases	0	-	-	0	0	0	0	0	0

Vladimir Oblast - 2002

Smear conversion

Civilian service

Quarter 1	Number of cases	Smear conversion						Smear not done	Remains smear-positive
		2 months		3 months		4 months			
		Number	%	Number	%	Number	%		
New cases	93	53	57	69	74	X	X	17	7
Relapses	27	X	X	20	74	22	81	4	1
Other retreatment cases	9	X	X	3	33	6	67	3	-
Quarter 2						X	X		
New cases	121	75	62	89	74			16	16
Relapses	15	X	X	8	53	10	67	3	2
Other retreatment cases	13	X	X	6	46	9	69	2	2
Quarter 3									
New cases	79	57	72	66	83.5	X	X	5	8
Relapses	23	X	X	12	52	14	61	4	5
Other retreatment cases	14	X	X	6	43	7	50	3	4
Quarter 4									
New cases									

44

Relapses									
Other retreatment cases									
<b>Total 2002</b>									
New cases									
Relapses									
Other retreatment cases									

45

Vladimir Oblast - 2002

Smear conversion

Prison service

Quarter 1	Number of cases	Smear conversion						Smear not done	Remains smear-positive
		2 months		3 months		4 months			
		Number	%	Number	%	Number	%		
New cases	21	15	71	18	86	X	X	1	2
Relapses	15	X	X	9	60	12	80	1	2
Other retreatment cases	19	X	X	14	74	17	89.5	2	
<b>Quarter 2</b>									
New cases	18	13	72	16	89	X	X	1	1
Relapses	9	X	X	7	78%	-	-	1	1
Other retreatment cases	16	X	X	12	75%	13	81	2	1
<b>Quarter 3</b>									
New cases	10	6	60	6	60			2	2
Relapses	5			2	40	3	60	1	1
Other retreatment cases	13			10	77	10	77	2	1
<b>Quarter 4</b>									

New cases	11	9	82	10	91				
Relapses	13			8	61.5	8	61.5	1	4
Other retreatment cases	12			8	67	9	75	1	2
<b>Total 2002</b>									
New cases	60	43	72	50	83			4	6
Relapses	42			26	62	30	71	4	8
Other retreatment cases	60			44	73	49	82	7	4

Chuvashia Republic- 2002

Smear conversion

Civilian service

Quarter 1	Number of cases	Smear conversion						Smear not done	Remains smear-positive
		2 months		3 months		4 months			
		Number	%	Number	%	Number	%		
New cases									
Relapses									
Other retreatment cases									
<b>Quarter 2</b>									
New cases									
Relapses									
Other retreatment cases									
<b>Quarter 3</b>									
New cases	67	44	66	54	81		2	11	
Relapses	17			9	53	11	65	3	
Other retreatment cases									
<b>Quarter 4</b>									

48

New cases									
Relapses									
Other retreatment cases									
<b>Total 2002</b>									
New cases									
Relapses									
Other retreatment cases									

Chuvashia Republic- 2002

Smear conversion

Prison service

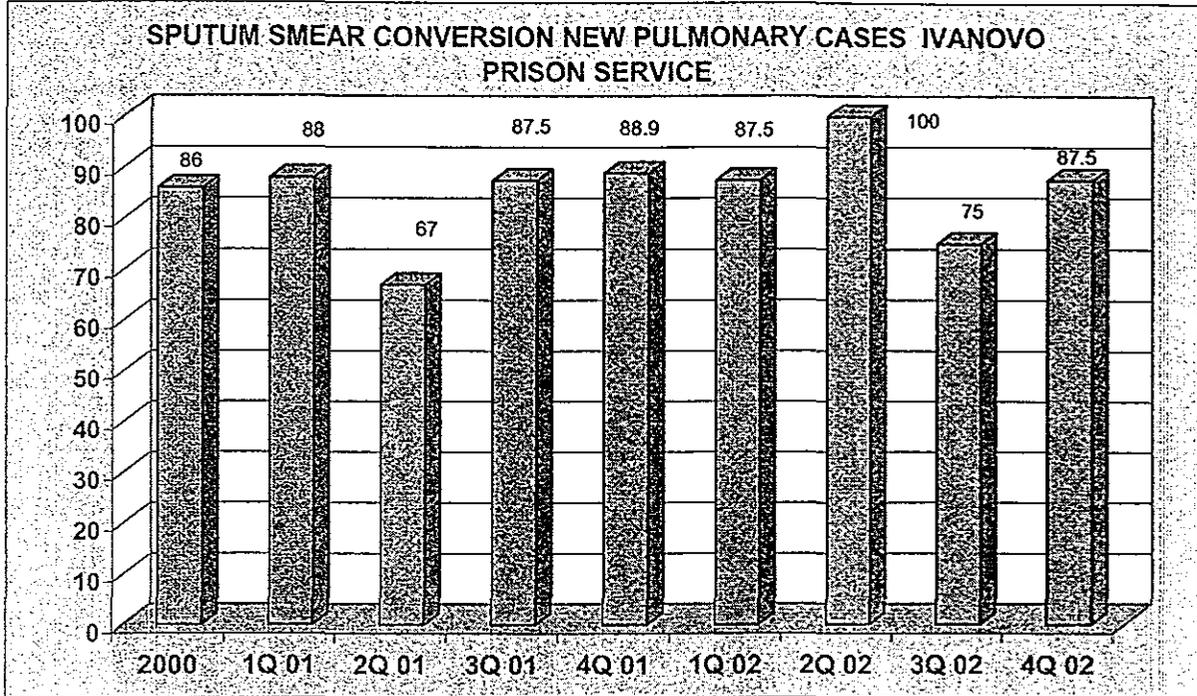
Quarter 1	Number of cases	Smear conversion						Smear not done	Remains smear-positive
		2 months		3 months		4 months			
		Number	%	Number	%	Number	%		
New cases									
Relapses									
Other retreatment cases									
<b>Quarter 2</b>									
New cases									
Relapses									
Other retreatment cases									
<b>Quarter 3</b>									
New cases	2	1	50%	1	50%	x	x	0	1
Relapses	6	x	x	4	67%	5	83%	0	1
Other retreatment cases									
<b>Quarter 4</b>									

50

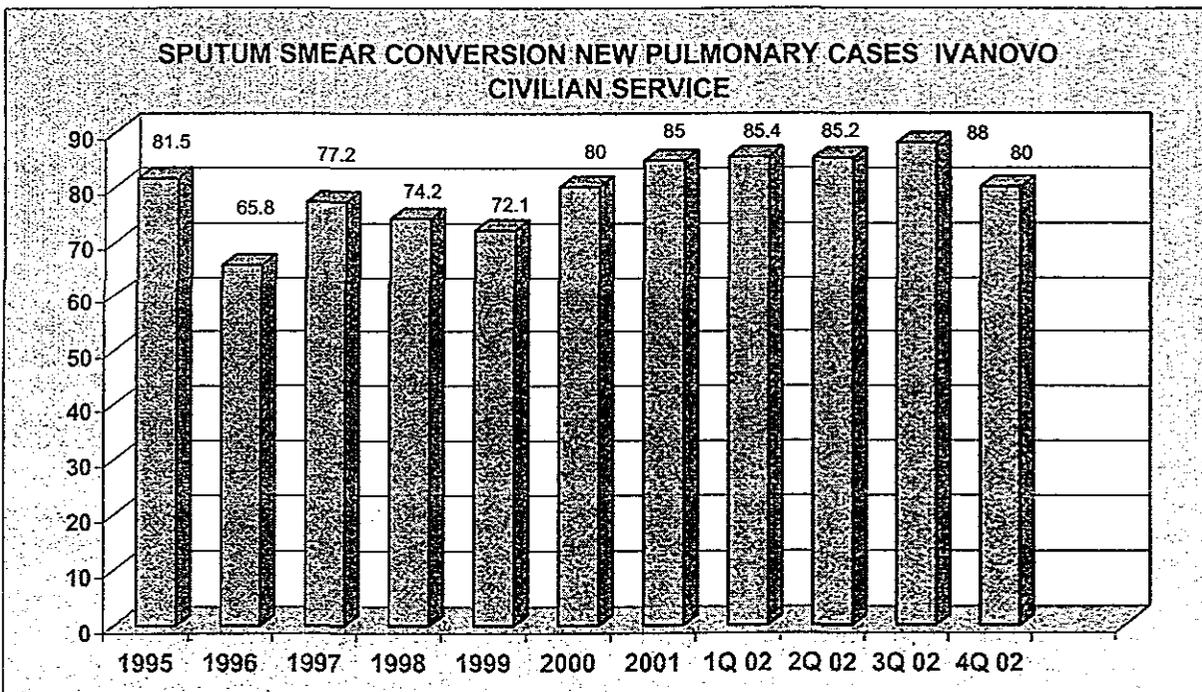
New cases									
Relapses									
Other retreatment cases									
<b>Total 2002</b>									
New cases									
Relapses									
Other retreatment cases									

ATTACHMENT 4. EPIDEMIOLOGICAL DATA ON SPUTUM SMEAR CONVERSION AMONG NEW CASES IN IVANOVO, OREL, VLADIMIR OBLASTS AND CHUVASHIA REPUBLIC, CIVILIAN AND PRISON SECTORS

	2000	1Q 01	2Q 01	3Q 01	4Q 01	1Q 02	2Q 02	3Q 02	4Q 02		
Ivanovo	86	88	67	87.5	88.9	87.5	100	75	87.5		

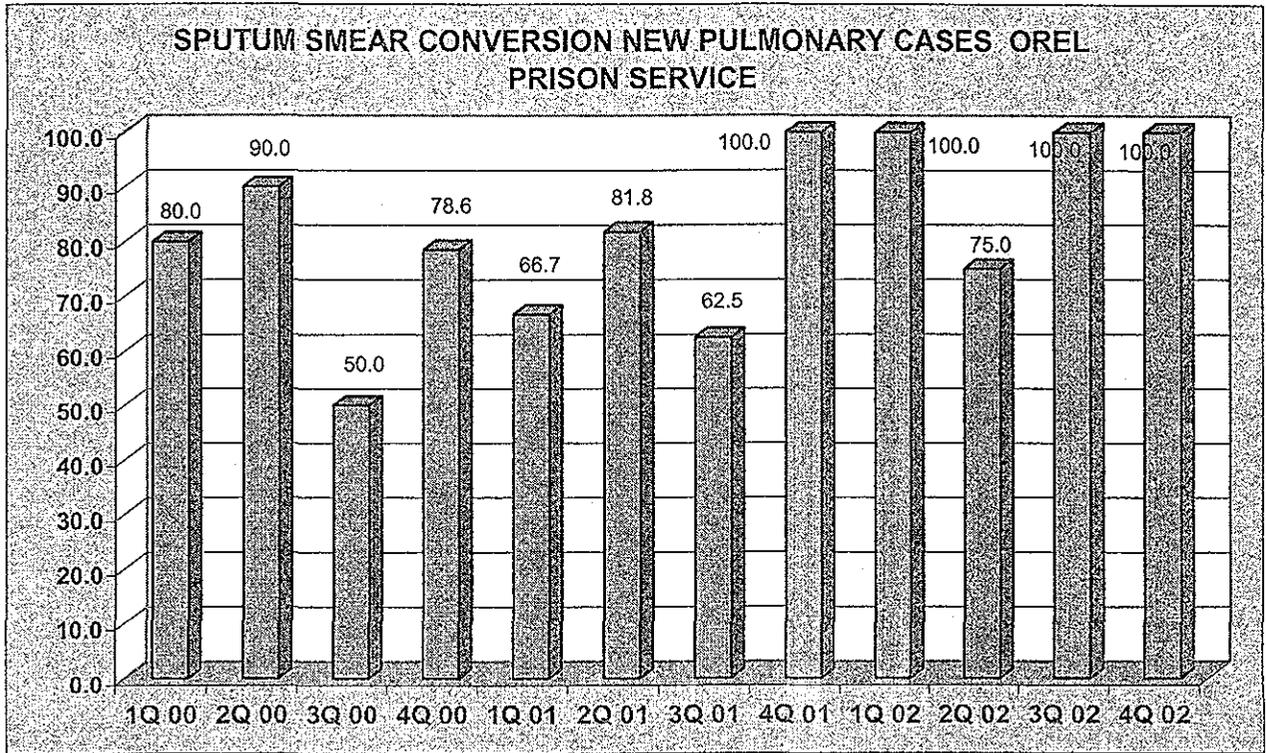


	1995	1996	1997	1998	1999	2000	2001	1Q 02	2Q 02	3Q 02	4Q 02
Ivanovo	81.5	65.8	77.2	74.2	72.1	80	85	85.4	85.2	88	80

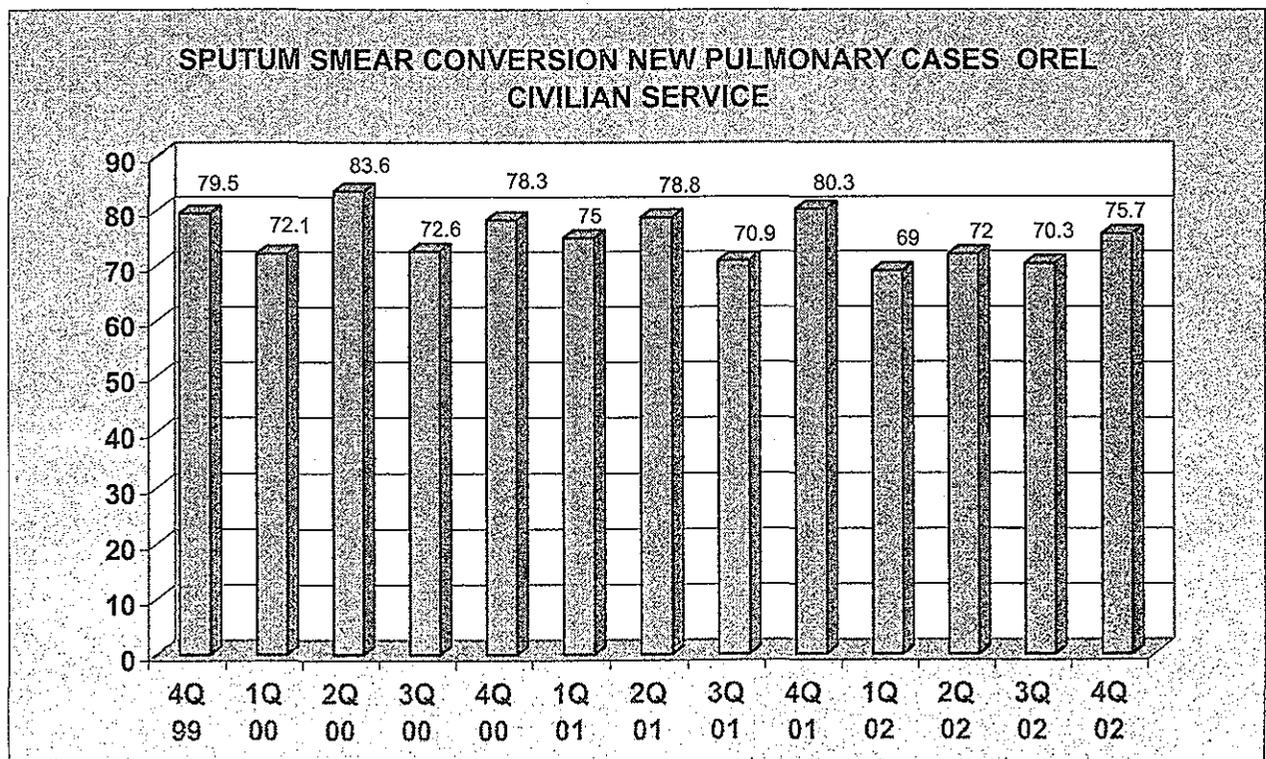


52

	1Q 00	2Q 00	3Q 00	4Q 00	1Q 01	2Q 01	3Q 01	4Q 01	1Q 02	2Q 02	3Q 02	4Q 02
% of Sputum conversion (new cases) Orel, UIN	80.0	90.0	50.0	78.6	66.7	81.8	62.5	100.0	100.0	75.0	100.0	100.0

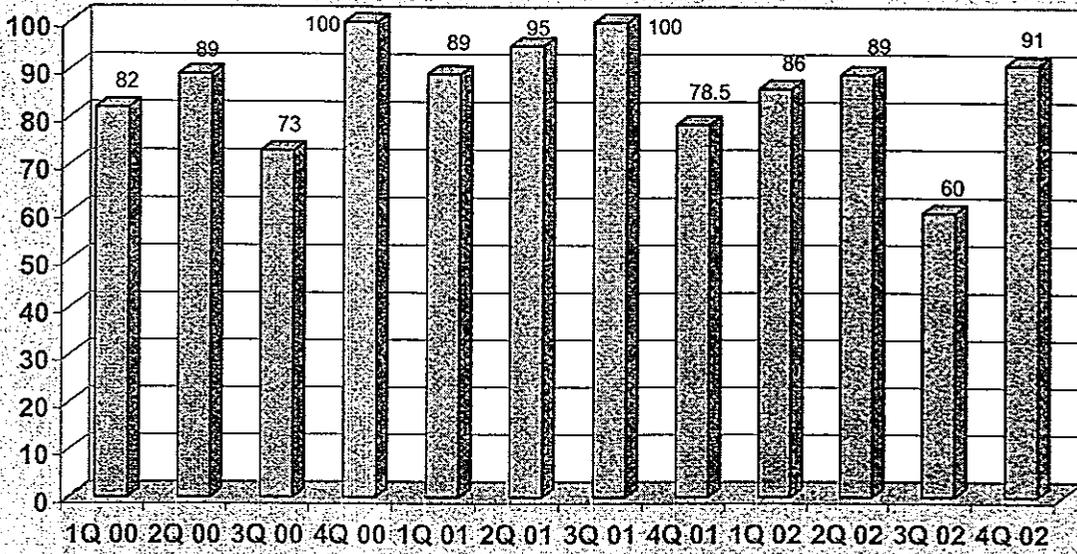


	4Q 99	1Q 00	2Q 00	3Q 00	4Q 00	1Q 01	2Q 01	3Q 01	4Q 01	1Q 02	2Q 02	3Q 02	4Q 02
% of Sputum Conversion	79.5	72.1	83.6	72.6	78.3	75	78.8	70.9	80.3	69	72	70.3	75.7



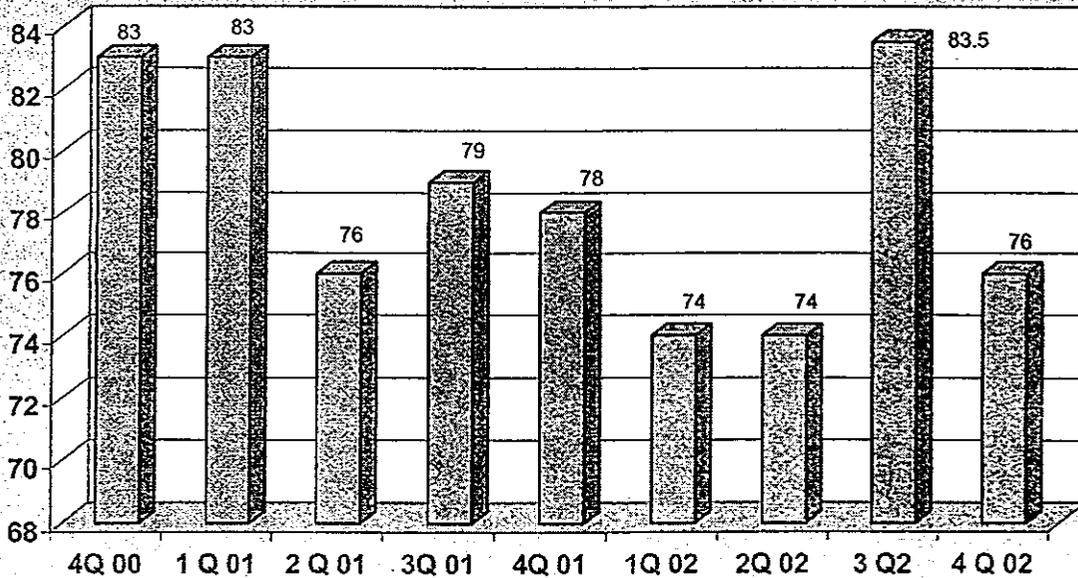
	1Q 00	2Q 00	3Q 00	4Q 00	1Q 01	2Q 01	3Q 01	4Q 01	1Q 02	2Q 02	3Q 02	4Q 02
Vladimir	82	89	73	100	89	95	100	78.5	86	89	60	91

**SPUTUM SMEAR CONVERSION NEW PULMONARY CASES**  
Vladimir Prison sector

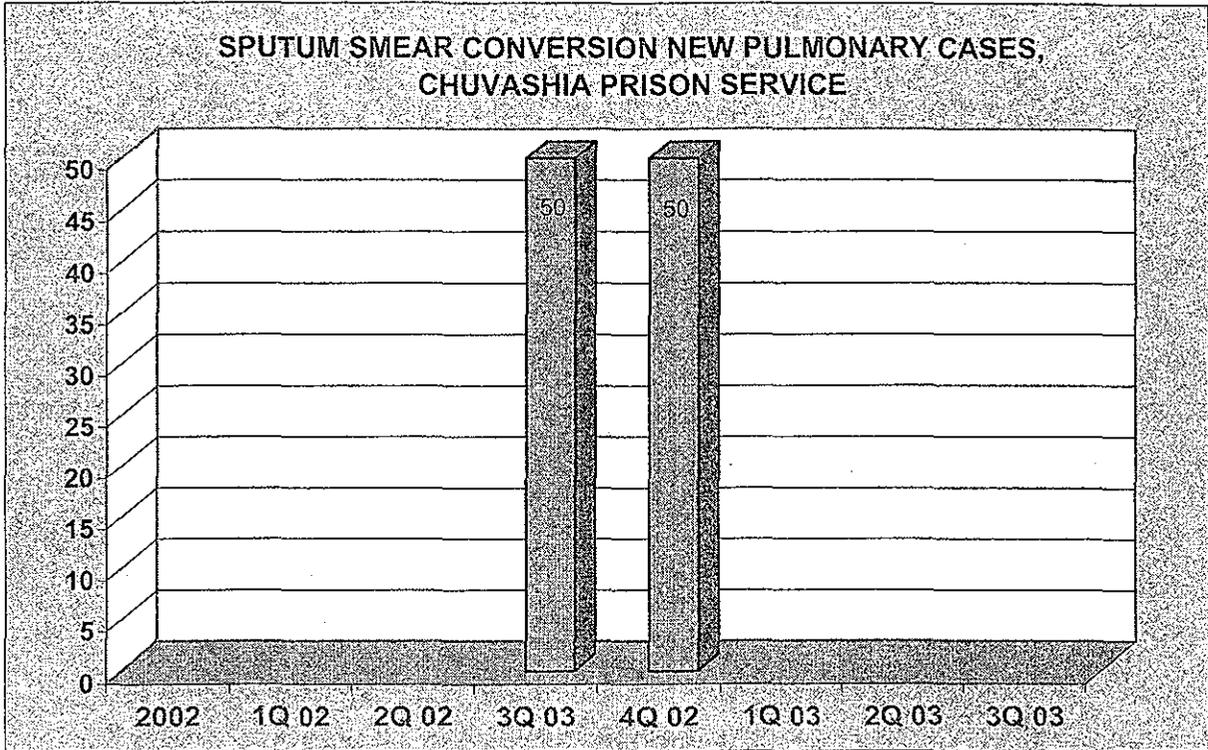


	4Q 00	1 Q 01	2 Q 01	3Q 01	4Q 01	1Q 02	2Q 02	3 Q2	4 Q 02
Vladimir	83	83	76	79	78	74	74	83.5	76

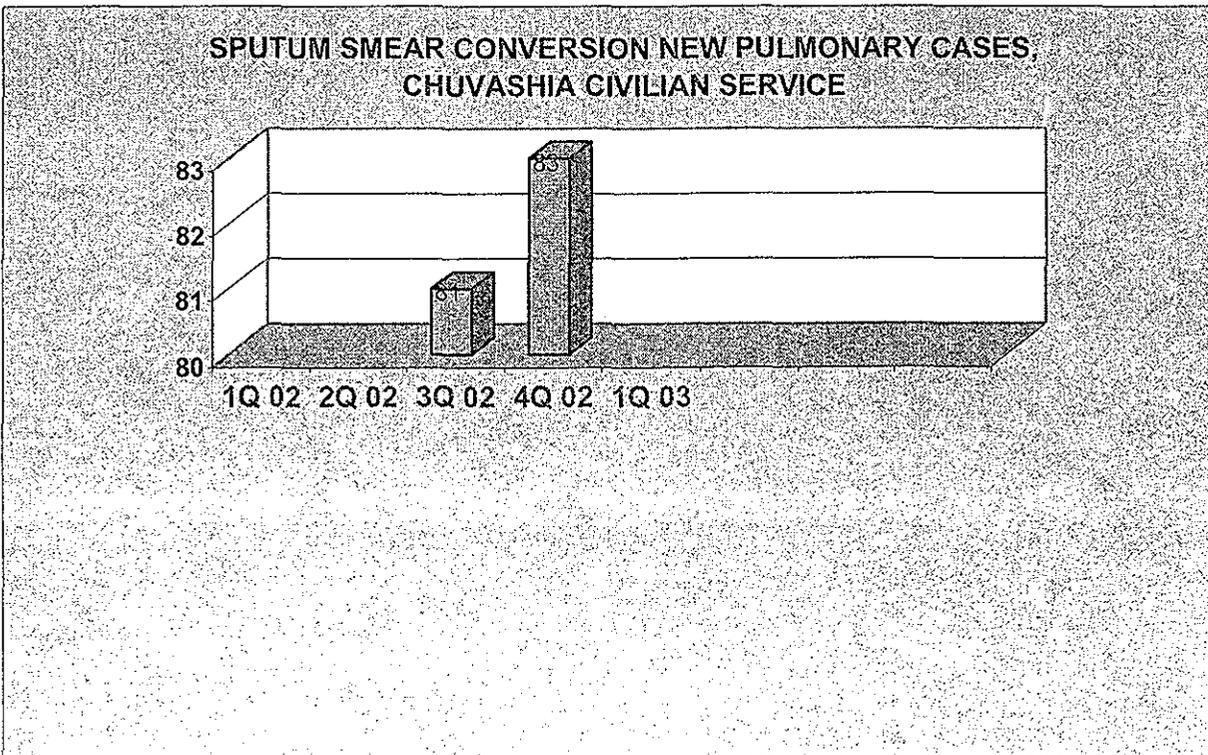
**SPUTUM SMEAR CONVERSION NEW PULMONARY CASES**  
VLADIMIR CIVILIAN SECTOR



	2002	1Q 02	2Q 02	3Q 03	4Q 02	1Q 03	2Q 03	3Q 03
Chuvashia				50	50			



	1Q 02	2Q 02	3Q 02	4Q 02	1Q 03
Chuvashia			81	83	



55

**Attachment 5. Treatment outcomes for new sputum smear positive cases in Ivanovo, Orel and Vladimir Oblasts, civilian and prison sectors (tables)**

**Orel Oblast - 2001**

**Treatment outcomes**

**Civilian sector**

Treatment outcomes	Quarter 1 - 2001		Quarter 2 - 2001		Quarter 3 - 2001		Quarter 4 - 2001	
	Abs. number	%						
<i>New sputum smear + cases</i>								
CURED	49	72.1%	53	80.3%	36	65.5%	43	84,3%
COMPLETED	1	1.47%	3	4.5%	0	0	0	0
TREATMENT SUCCESS	50	73.5%	56	84.9%	36	65.5%	43	84,3%
FAILURE	10	14.7%	4	6.1%	9	16.4%	4	7,2%
DIED	5	7.4%	5	7.6%	7	12.7%	3	5,9%
DEFAULTED	2	2.9%	1	1.5%	1	1.8%	0	0
TRANSFERRED OUT	1	1.47%	0	0%	2	3.6%	1	2%
<b>TOTAL</b>	<b>68</b>		<b>66</b>		<b>55</b>		<b>51</b>	

<i>New sputum smear - cases</i>	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%
CURED	-		-		-		-	
COMPLETED	88	92.6%	53	88.3%	65	91.5%	53	93%
TREATMENT SUCCESS	88	92.6%	53	88.3%	65	91.5%	53	93%
FAILURE	2	2.1%	7	11.6%	2	2.8%	0	0
DIED	3	3.16%	0		4	5.6%	1	1,8%
DEFAULTED	0	0%	0		0	0%	0	0
TRANSFERRED	2	2.1%	0		0	0%	3	5,2%

OUT							
<b>TOTAL</b>	<b>95</b>		<b>60</b>		<b>71</b>		<b>57</b>

<i>Extra pulmonary cases</i>	Abs. number	%						
CURED								
COMPLETED	6	100%	16	100%	10	100%	11	100%
TREATMENT SUCCESS	6	100%	16	100%	10	100%	11	100%
FAILURE	0	0%	0	0%	0	0%	0	0
DIED	0	0%	0	0%	0	0%	0	0
DEFAULTED	0	0%	0	0%	0	0%	0	0
TRANSFERRED OUT	0	0%	0	0%	0	0%	0	0
<b>TOTAL</b>	<b>6</b>		<b>16</b>		<b>10</b>		<b>11</b>	

## Orel Oblast - 2002

## Treatment outcomes

## Civilian sector

Treatment outcomes	Quarter 1 - 2002		Quarter 2 - 2002		Quarter 3 - 2002		Quarter 4 - 2002	
	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%
<i>New sputum smear + cases</i>								
CURED	47	81.0%						
COMPLETED	0							
TREATMENT SUCCESS	47	81.0%						
FAILURE	5	8.6%						
DIED	4	6.9%						
DEFAULTED	1	1.7%						
TRANSFERRED OUT	1	1.7%						
<b>TOTAL</b>	<b>58</b>							

<i>New sputum smear - cases</i>	Quarter 1 - 2002		Quarter 2 - 2002		Quarter 3 - 2002		Quarter 4 - 2002	
	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%
CURED	3	75%						
COMPLETED	0							
TREATMENT SUCCESS	3	75%						
FAILURE	1	25%						
DIED	0							
DEFAULTED	0							
TRANSFERRED OUT	0							
<b>TOTAL</b>	<b>4</b>							

<i>Extra pulmonary cases</i>	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%
CURED	-	-						
COMPLETED	9	100%						
TREATMENT SUCCESS	9	100%						
FAILURE	0							
DIED	0							
DEFAULTED	0							
TRANSFERRED OUT	0							
<b>TOTAL</b>	<b>9</b>							

## Orel Oblast - 2001

## Treatment outcomes

## Prison sector

Treatment outcomes	Quarter 1 - 2001		Quarter 2 - 2001		Quarter 3 - 2001		Quarter 4 - 2001	
	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%
<i>New sputum smear + cases</i>								
CURED	4	67%	10	90.9%	6	75%	4	100%
COMPLETED	0	0	0	0	0	0	0	0
TREATMENT SUCCESS	4	67%	10	90.9%	6	75%	4	100%
FAILURE	1	17%	0	0%	1	12.5%	0	0
DIED	0	0%	0	0%	0	0	0	0
DEFAULTED	0	0%	0	0%	1	12.5%	0	0
TRANSFERRED OUT	1	17%	1	9.1%			0	0
<b>TOTAL</b>	<b>6</b>		<b>11</b>		<b>8</b>		<b>4</b>	

<i>New sputum smear - cases</i>	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%
CURED	-				-		-	
COMPLETED	26	89.7%	13	100%	26	89.7%	16	88.9%
TREATMENT SUCCESS	26	89.7%	13	100%	26	89.7%	16	88.9%
FAILURE	1	3.4%	0	0%	2	6.9%	2	11.1%
DIED	0	0%	0	0%	0	0	0	0
DEFAULTED	1	3.4%	0	0%	0	0	0	0
TRANSFERRED OUT	1	3.4%	0	0%	1	3.4%	0	0

<b>TOTAL</b>	<b>29</b>		<b>13</b>		<b>29</b>		<b>18</b>	
<i>Extra pulmonary cases</i>	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%
CURED	-		-		-		-	
COMPLETED	0	0%	0	0%	0	0%	2	100%
TREATMENT SUCCESS	0	0%	0	0%	0	0%	2	100%
FAILURE	0	0%	0	0%	0	0%	0	0
DIED	0	0%	0	0%	0	0%	0	0
DEFAULTED	0	0%	0	0%	0	0%	0	0
TRANSFERRED OUT	0	0%	0	0%	0	0%	0	0
<b>TOTAL</b>	<b>0</b>	<b>0%</b>	<b>0</b>	<b>0%</b>	<b>0</b>	<b>0%</b>	<b>2</b>	

## Orel Oblast - 2002

## Treatment outcomes

## Prison sector

Treatment outcomes	Quarter 1 - 2002		Quarter 2 - 2002		Quarter 3 - 2002		Quarter 4 - 2002	
	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%
<i>New sputum smear + cases</i>								
CURED	6	85.7%						
COMPLETED	0							
TREATMENT SUCCESS	6	85.7%						
FAILURE	1	14.3%						
DIED	0							
DEFAULTED	0							
TRANSFERRED OUT	0							
<b>TOTAL</b>	<b>7</b>							

<i>New sputum smear - cases</i>	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%
CURED	-							
COMPLETED	8	100%						
TREATMENT SUCCESS	8	100%						
FAILURE	0							
DIED	0							
DEFAULTED	0							
TRANSFERRED OUT	0							
<b>TOTAL</b>	<b>8</b>							

<i>Extra pulmonary cases</i>								
CURED	-							
COMPLETED	0							
TREATMENT SUCCESS	0							
FAILURE	0							
DIED	0							
DEFAULTED	0							
TRANSFERRED OUT	0							
<b>TOTAL</b>	<b>0</b>							

## Ivanovo Oblast - 2001

## Treatment outcomes

## Civilian sector

Treatment outcomes	Quarter 1 - 2001		Quarter 2 - 2001		Quarter 3 - 2001		Quarter 4 - 2001	
	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%
<i>New sputum smear + cases</i>								
CURED	38		43		37		46	
COMPLETED								
TREATMENT SUCCESS	38	63%	43	73%	37	72,5%	46	73%
FAILURE	9	15%	10	17%	6	12%	6	9.5
DIED	9	15%	2	3%	7	14%	6	9.5
DEFAULTED	2	3%	1	2%	0	0	3	5
TRANSFERRED OUT	2	3%	3	5%	1	2%	2	3
<b>TOTAL</b>	<b>60</b>		<b>59</b>		<b>51</b>		<b>63</b>	

<i>New sputum smear - cases</i>	Abs. number		Abs. Number		Abs. Number		Abs. number	
		%		%		%		%
CURED								
COMPLETED	159		71		59		41	
TREATMENT SUCCESS	159	88%	71	86%	59	95%	41	98%
FAILURE	4	2%	4	5%	1	2%		
DIED	2	1%	-		-		1	2%
DEFAULTED	7	4%	4	5%	1	2%		
TRANSFERRED OUT	9	5%	3	4%	1	2%		
<b>TOTAL</b>	<b>181*</b>		<b>82**</b>		<b>62</b>		<b>42***</b>	
<i>Extra pulmonary</i>	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%

<i>cases</i>								
CURED								
COMPLETED	21	100%	29	93.5%	20	91%	14	82%
TREATMENT SUCCESS	-		-		-			
FAILURE	-		-		-		1	6%
DIED	-		-		-			
DEFAULTED	-		-		-		1	6%
TRANSFERRED OUT	-		2	6.5%	2	9%	1	6%
<b>TOTAL</b>	<b>21</b>		<b>31</b>		<b>22</b>		<b>17</b>	

\* 2 persons had their diagnosis TB removed (Cancer pulmonum)

\*\* 1 patient with Extrapulmonary TB diagnosed with Pulmonary TB

\*\*\* 1 patient had their diagnosis TB removed

## Ivanovo Oblast - 2002

## Treatment outcomes

## Civilian sector

Treatment outcomes	Quarter 1 - 2002		Quarter 2 - 2002		Quarter 3 - 2002		Quarter 4 - 2002	
	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%
<i>New sputum smear + cases</i>								
CURED	39							
COMPLETED TREATMENT SUCCESS	39	71%						
FAILURE	11	20%						
DIED	3	5%						
DEFAULTED	0							
TRANSFERRED OUT	2	4%						
<b>TOTAL</b>	<b>55</b>							

<i>New sputum smear - cases</i>	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%
CURED								
COMPLETED TREATMENT SUCCESS	117	91%						
FAILURE	4	3%						
DIED	0							
DEFAULTED	3	2%						
TRANSFERRED OUT	5	4%						
<b>TOTAL</b>	<b>129*</b>							
<i>Extra pulmonary</i>	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%

<i>cases</i>								
CURED								
COMPLETED	11	100%						
TREATMENT SUCCESS	-							
FAILURE	-							
DIED	-							
DEFAULTED	-							
TRANSFERRED OUT	-							
<b>TOTAL</b>	<b>11**</b>							

- \* 3 persons had their diagnosis TB removed \*\* 1 patient with Extrapulmonary TB diagnosis removed

## Ivanovo Oblast - 2001

## Treatment outcomes

## Prison sector

Treatment outcomes	Quarter 1 - 2001		Quarter 2 - 2001		Quarter 3 - 2001		Quarter 4 - 2001	
	Abs. number	%						
<i>New sputum smear + cases</i>								
CURED	14		3		12		5	
COMPLETED	-							
TREATMENT SUCCESS	14	82%	3	50%	12	75%	5	55.5%
FAILURE	2	12%	2	33%	1	6%	3	33%
DIED	-	-	1	17%	1	6%	0	
DEFAULTED	-	-			-		0	
TRANSFERRED OUT	1	6%			2	12%	1	11%
<b>TOTAL</b>	<b>17</b>		<b>6</b>		<b>16</b>		<b>9</b>	

<i>New sputum smear - cases</i>	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%
CURED	-	-						
COMPLETED	47	88%	45	94%	43	90%	46	94%
TREATMENT SUCCESS	47	88%	-		-			
FAILURE	2	4%	-		2	4%	0	
DIED	1	2%	-		-			
DEFAULTED	-	-	-		-			
TRANSFERRED OUT	3	6%	3	6%	3	6%	3	6%
<b>TOTAL</b>	<b>53*</b>		<b>48*</b>	<b>100%</b>	<b>48</b>	<b>100%</b>	<b>49</b>	<b>100%</b>
<i>Extra pulmonary</i>	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%

<i>cases</i>								
CURED								
COMPLETED	2	100%	-		1	100%	2	100%
TREATMENT SUCCESS	-		-		-			
FAILURE	-		-		-			
DIED	-		-		-			
DEFAULTED	-		-		-			
TRANSFERRED OUT	-		-		-			
<b>TOTAL</b>	<b>2</b>		<b>-</b>		<b>1</b>			

\* 1 patient has TB diagnosis removed

## Ivanovo Oblast - 2002

## Treatment outcomes

## Prison sector

Treatment outcomes	Quarter 1 - 2002		Quarter 2 - 2002		Quarter 3 - 2002		Quarter 4 - 2002	
	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%
<i>New sputum smear + cases</i>								
CURED	5	62.5						
COMPLETED	0							
TREATMENT SUCCESS	5	62.5						
FAILURE	2	25						
DIED	0							
DEFAULTED	0							
TRANSFERRED OUT	1	12.5						
<b>TOTAL</b>	<b>8</b>							

<i>New sputum smear - cases</i>	Abs. number		Abs. Number		Abs. Number		Abs. number	
		%		%		%		%
CURED	-	-						
COMPLETED	27	93						
TREATMENT SUCCESS	27	93						
FAILURE	1	3						
DIED	0							
DEFAULTED	0							
TRANSFERRED OUT	1	3						
<b>TOTAL</b>	<b>29</b>							
2002								

<i>Extra pulmonary cases</i>								
CURED								
COMPLETED	1	100						
TREATMENT SUCCESS								
FAILURE								
DIED								
DEFAULTED								
TRANSFERRED OUT								
<b>TOTAL</b>	<b>1</b>							

## Vladimir Oblast - 2001

## Treatment outcomes

## Civilian sector

Treatment outcomes	Quarter 1 - 2001		Quarter 2 - 2001		Quarter 3 - 2001		Quarter 4 - 2001	
	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%
<i>New sputum smear + cases</i>								
CURED	61	70	66	69	77	77	69	70
COMPLETED	2	2	1	1	0	0	3	3
TREATMENT SUCCESS	63	72	67	70.5	77	77	72	73
FAILURE	10	11	8	8	11	11	13	13
DIED	5	6	13	14	6	6	9	9
DEFAULTED	6	7	5	5	3	3	1	1
TRANSFERRED OUT	3	3	2	2	3	3	4	4
<b>TOTAL</b>	<b>87</b>		<b>95</b>		<b>100</b>		<b>99</b>	

<i>New sputum smear - cases</i>	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%
CURED	-							
COMPLETED	94	91	89	86	61	90	82	92
TREATMENT SUCCESS								
FAILURE	1	0,9	1	1	0	0		
DIED	5	5	7	7	2	3	3	3
DEFAULTED	3	3	3	3	3	4	1	1
TRANSFERRED OUT	0		3	3	2	3	3	3
<b>TOTAL</b>	<b>103</b>		<b>103</b>		<b>68</b>		<b>89</b>	
<i>Extra pulmonary</i>								

<i>cases</i>	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%
CURED	-							
COMPLETED	19	100	34	95			22	92
TREATMENT SUCCESS								
FAILURE			1	2.7				
DIED			1	2.7			1	4
DEFAULTED								
TRANSFERRED OUT							1	4
<b>TOTAL</b>	<b>19</b>		<b>36</b>				<b>24*</b>	

\* 1 -no TB

## Vladimir Oblast - 2002

## Treatment outcomes

## Civilian sector

Treatment outcomes	Quarter 1 - 2002		Quarter 2 - 2002		Quarter 3 - 2002		Quarter 4 - 2002	
	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%
<i>New sputum smear + cases</i>								
CURED	61	66						
COMPLETED	4	4						
TREATMENT SUCCESS	65	70						
FAILURE	9	10						
DIED	12	13						
DEFAULTED	5	5						
TRANSFERRED OUT	2	2						
<b>TOTAL</b>	<b>93</b>							

<i>New sputum smear - cases</i>	Abs. number		Abs. Number		Abs. Number		Abs. number	
		%		%		%		%
CURED	-							
COMPLETED	82	85						
TREATMENT SUCCESS	82	85						
FAILURE	0							
DIED	3	3						
DEFAULTED	7	7						
TRANSFERRED OUT	4	4						
<b>TOTAL</b>	<b>96 *</b>							
<i>Extra pulmonary</i>								

<i>cases</i>	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%
CURED	-							
COMPLETED	13	100						
TREATMENT SUCCESS								
FAILURE								
DIED								
DEFAULTED								
TRANSFERRED OUT								
<b>TOTAL</b>	<b>13</b>							

\* 1 -no TB

## Vladimir Oblast - 2001

## Treatment outcomes

## Prison sector

Treatment outcomes	Quarter 1 - 2001		Quarter 2 - 2001		Quarter 3 - 2001		Quarter 4 - 2001	
	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%
<i>New sputum smear + cases</i>								
CURED	6	67	15	79	5	100	9	64
COMPLETED							-	
TREATMENT SUCCESS	6	67	15	79	5	100	9	64
FAILURE	2	22	4	21	-		2	14
DIED							1	7
DEFAULTED			-	-	-		-	
TRANSFERRED OUT	1	11	-	-	-		2	14
<b>TOTAL</b>	<b>9</b>		<b>19</b>		<b>5</b>		<b>14</b>	

<i>New sputum smear - cases</i>	Abs. number	%						
CURED	-							
COMPLETED	61	80	67	86	46	88	42	93.3
TREATMENT SUCCESS								
FAILURE	4	5	4	5	3	6	1	2.2
DIED								
DEFAULTED							1	2.2
TRANSFERRED OUT	11	14	7	9	3	6	1	2.2
<b>TOTAL</b>	<b>76</b>		<b>78*</b>		<b>52</b>		<b>45*</b>	

\* 1 patient has TB diagnosis removed

<i>Extra pulmonary cases</i>	Abs. number	%						
CURED	-						-	
COMPLETED	1	100	4	100	4	100	3	100
TREATMENT SUCCESS								
FAILURE								
DIED								
DEFAULTED								
TRANSFERRED OUT								
<b>TOTAL</b>	<b>1</b>		<b>4</b>		<b>4</b>		<b>3</b>	

## Vladimir Oblast - 2002

## Treatment outcomes

## Prison sector

Treatment outcomes	Quarter 1 - 2002		Quarter 2 - 2002		Quarter 3 - 2002		Quarter 4 - 2002	
	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%
<i>New sputum smear + cases</i>								
CURED	13	62						
COMPLETED TREATMENT	0							
SUCCESS	13	62						
FAILURE	6	28.5						
DIED	1	5						
DEFAULTED	0	0						
TRANSFERRED OUT	1	5						
<b>TOTAL</b>	<b>21</b>							

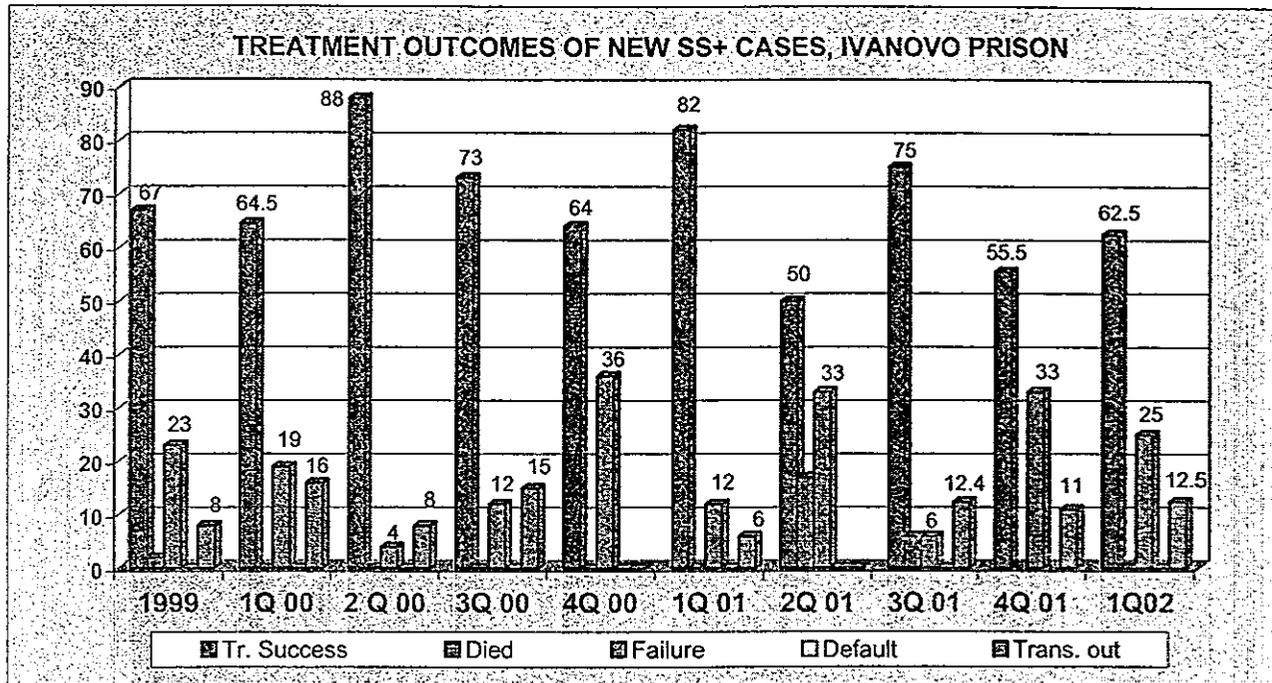
<i>New sputum smear - cases</i>	Abs. number		Abs. Number		Abs. number		Abs. Number	
		%		%		%		%
CURED	-							
COMPLETED TREATMENT	45	82						
SUCCESS	45	82						
FAILURE	4	7						
DIED	3	5						
DEFAULTED	0							
TRANSFERRED OUT	3	5						
<b>TOTAL</b>	<b>55</b>							

\* 1 patient has TB diagnosis removed

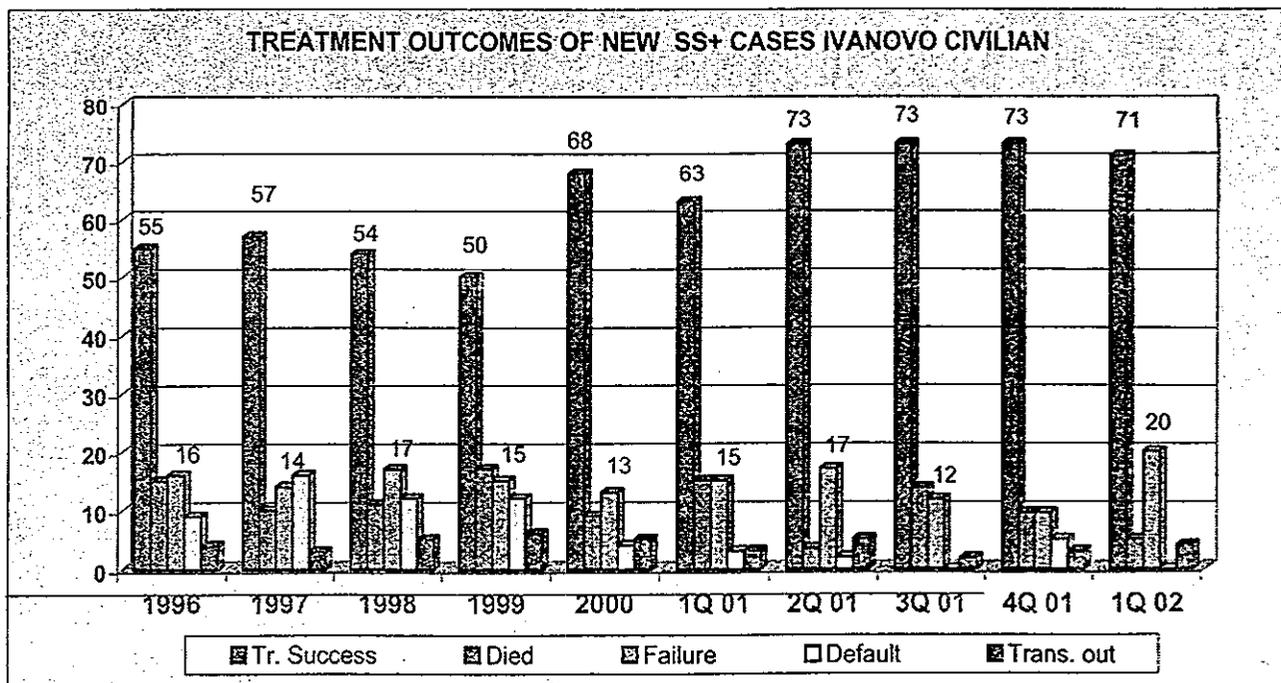
<i>Extra pulmonary cases</i>	Abs. number	%	Abs. Number	%	Abs. Number	%	Abs. number	%
CURED							-	
COMPLETED	2	100						
TREATMENT SUCCESS								
FAILURE								
DIED								
DEFAULTED								
TRANSFERRED OUT								
<b>TOTAL</b>	<b>2</b>							

**ATTACHMENT 6. EPIDEMIOLOGICAL DATA ON TREATMENT OUTCOMES FOR THE NEW SPUTUM SMEAR POSITIVE CASES IN IVANOVO, OREL AND VLADIMIR OBLASTS AND CHUVASHIA REPUBLIC CIVILIAN AND PRISON SECTORS**

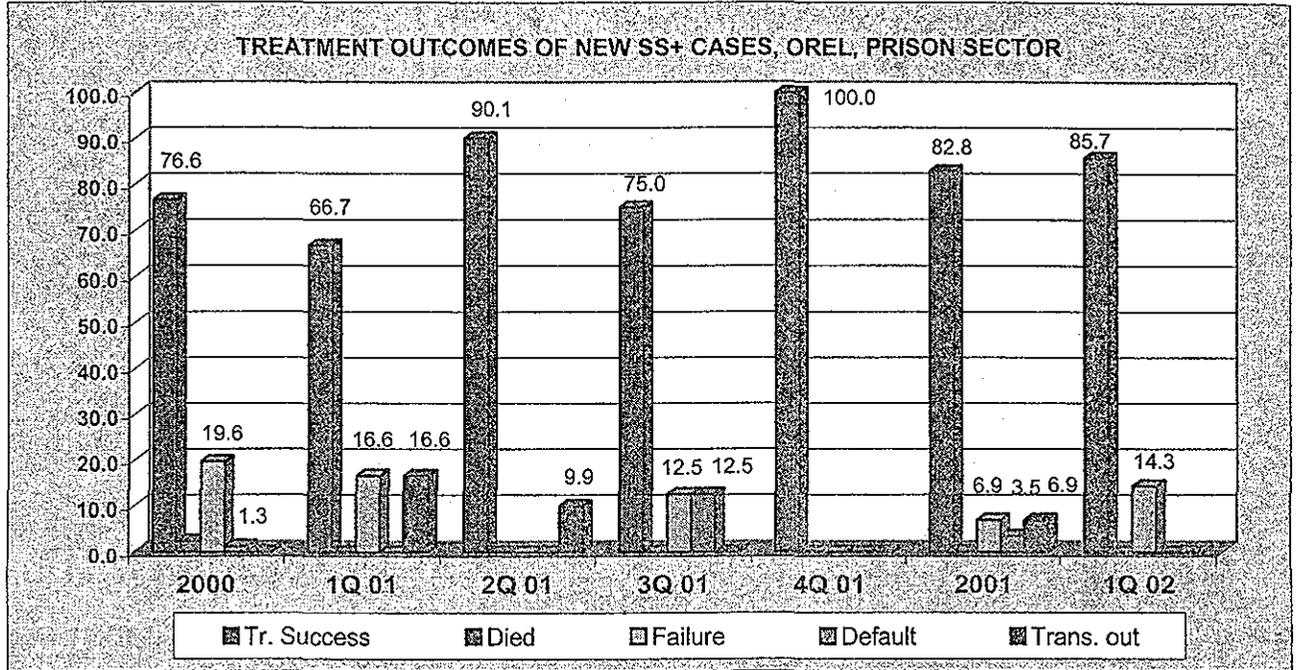
	1999	1Q 00	2 Q 00	3Q 00	4Q 00	1Q 01	2Q 01	3Q 01	4Q 01	1Q02
Tr. Success	67	64.5	88	73	64	82	50	75	55.5	62.5
Died	2	0	0	0	0	0	17	6		0
Failure	23	19	4	12	36	12	33	6	33	25
Default	0	0	0	0	0	0	0	0		0
Trans. out	8	16	8	15	0	6	0	12.4	11	12.5



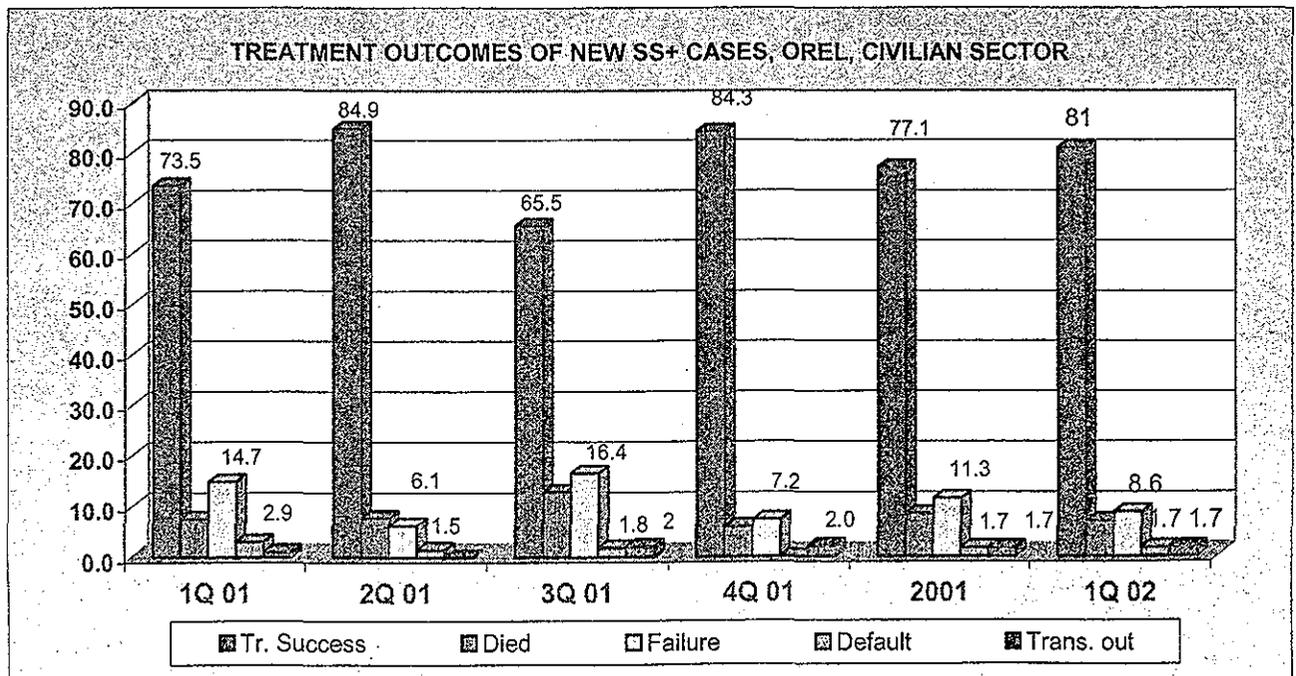
	1996	1997	1998	1999	2000	1Q 01	2Q 01	3Q 01	4Q 01	1Q 02
Tr. Success	55	57	54	50	68	63	73	73	73	71
Died	15	10	11	17	9	15	3	14	10	5
Failure	16	14	17	15	13	15	17	12	9.5	20
Default	9	16	12	12	4	3	2	0	5	0
Trans. out	4	3	5	6	5	3	5	2	3	4



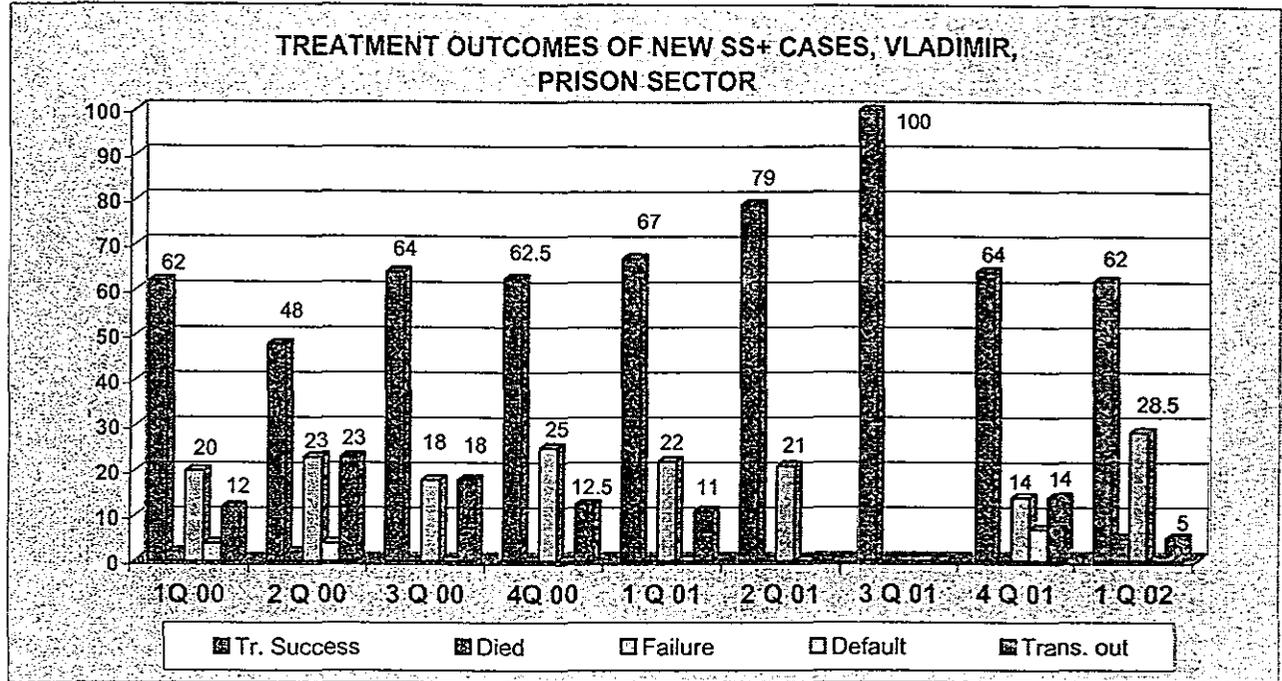
	2000	1Q 01	2Q 01	3Q 01	4Q 01	2001	1Q 02
Tr. Success	76.6	66.7	90.1	75.0	100.0	82.8	85.7
Died	2.5	0.0	0.0	0.0	0.0	0.0	0
Failure	19.6	16.6	0.0	12.5	0.0	6.9	14.3
Default	1.3	0.0	0.0	12.5	0.0	3.5	0
Trans. out	0.0	16.6	9.9	0.0	0.0	6.9	0



	2000	1Q 01	2Q 01	3Q 01	4Q 01	2001	1Q 02
Tr. Success	73.2	73.5	84.9	65.5	84.3	77.1	81
Died	10.3	7.4	7.6	12.7	5.9	8.3	6.9
Failure	10.7	14.7	6.1	16.4	7.2	11.3	8.6
Default	3.2	2.9	1.5	1.8	0.0	1.7	1.7
Trans. out	0.8	1.0	0.0	2	2.0	1.7	1.7



	1 Q 00	2 Q 00	3 Q 00	4 Q 00	1 Q 01	2 Q 01	3 Q 01	4 Q 01	1 Q 02
Tr. Success	62	48	64	62.5	67	79	100	64	62
Died	2	2	0	0	0	0	0	0	5
Failure	20	23	18	25	22	21	0	14	28.5
Default	4	4	0	0	0	0	0	7	0
Trans. out	12	23	18	12.5	11	0	0	14	5



	4 Q 00	1 Q 01	2 Q 01	3 Q 01	4 Q 01	1 Q 02
Tr. Success	72	72	70.5	77	73	70
Died	7	6	14	6	9	13
Failure	9	11	8	11	13	10
Default	8	7	5	3	1	5
Trans. out	4	3	2	3	4	2

