



Combating HIV/AIDS, malaria and other diseases

MDG 6 is aimed at reducing the burden of such communicable diseases as HIV/AIDS, tuberculosis, and malaria, which cause the biggest demographic losses worldwide and exert an extremely negative effect on human capital and the economy in many countries.

Anually, about 2 million of people in the world die of tuberculosis. Every year 300 million people develop attacks of malaria and approximately 1 million die of it, mainly children. Although just 25 years have passed since the first diagnosis of HIV-infection, more than 20 million people have died of the infection to date and about 40 million are HIV-infected.¹

5.1. ANALYSIS OF THE SITUATION IN RUSSIA

5.1.1. HIV/AIDS

The first case of HIV-infection was diagnosed in Russia as long ago as 1985, but the epidemiologic situation deteriorated significantly in 1996, when a number of Russian regions reported serious HIV outbreaks among injection drug addicts (Figure 5.1).

Numbers of registered new HIV cases grew rapidly up to 2001, but the rate of growth slowed down in the subsequent three years. Interpretation of these trends varies significantly. Some specialists simply reject the apparent decline of incidence (alleging incom-

plete registration of HIV-infection),³ while others claim that the Russian HIV/AIDS epidemic has stabilized and is developing in accordance with an optimistic scenario.^{4,5} In the opinion of some specialists,⁶ the reduction in numbers of new registered cases is only temporary and should be attributed mainly to the fact that the HIV/AIDS epidemics is moving to its second phase, characterized by transmission of HIV from isolated social groups to the general population. This opinion is indirectly supported by the fact that the absolute number of new HIV cases recorded in 2004 almost reached the level of the previous year.

By May 2005, the total number of officially registered cases of HIV/AIDS in Russia exceeded 313,000 people,⁷ but the actual number of infections seems to be much higher. According to UNAIDS data, about 860,000 people are currently living with HIV/AIDS in Russia, and the range of experts' assessments is between 420,000 and 1,400,000 people¹.

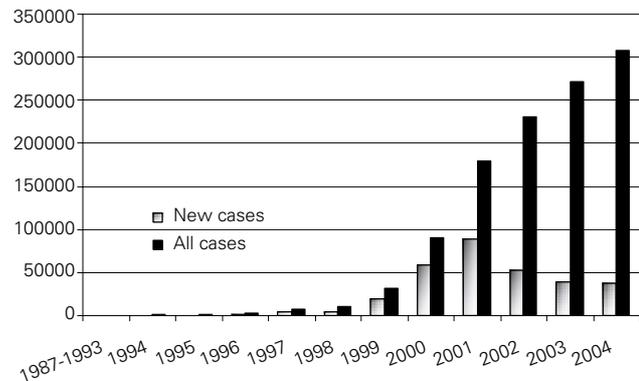
HIV/AIDS has been recorded in all administrative regions (so-called subjects of the Russian Federation). However, there is a big difference in prevalence of the infection between Russia's territories. It is particularly worrying that about 70% of all cases are concentrated in ten highly developed regions, and the majority of the HIV-infected are young people of working age (Table 5.1).

Over the last 10 years HIV in Russia has spread mainly among IDUs (injection

drug users). Infection has also been particularly prevalent among sex workers, prisoners, and men having sex with men. There is no clear indication as yet of large-scale spread of HIV/AIDS among the general population. However, HIV-infection is starting to spread more intensively heterosexually, especially via the so-called bridge population groups. These can include sexual partners of drug users, females having sex with bisexual males, and clients of sex workers.⁸ If in 2000 only 3% of new registered HIV cases via established paths of infection were due to heterosexual transmission, in 2004 the heterosexual share of such cases increased to 25%. Sexual HIV transmission resulted in change of gender proportions among Russian PLWHA (people living with HIV/AIDS): in 2001 only 20% of HIV-cases were recorded among women, in 2004 this figure reached 38% and in some areas exceeded 50%.⁷ High potential for further spread of the epidemic is confirmed by numerous sociological studies which show insufficient public awareness of the HIV/AIDS issue and reveal that risky behaviour is widespread both among the general population^{9,10,11} and vulnerable groups.^{12,13} The trend towards spread of the epidemic to the wider population is confirmed by a growing number of HIV-infected pregnant women. HIV prevalence among pregnant women in Russia by the end of 2004 reached 0.3% on average, with up to 0.8%⁴ in the most affected regions. The trend is also reflected in growing numbers of babies born to HIV-positive mothers. According to various experts,^{4,14} by the end of 2004 the number of such children was around 12-14,000, of whom 15-20% were HIV-infected and 10% were left by parents in state care.

According to the classification of UNAIDS and WHO, Russia is now in the phase of concentrated epidemic, i.e. when HIV preva-

Figure 5.1. Officially recorded cases of HIV-infection in Russia²



lence is more than 5% in at least one population group (IDUs in the Russian case), but is still less than 1% among urban pregnant women. However, different territories are in different phases of the epidemic: in some regions the epidemic is in the nascent stage, in most regions it is concentrated, and in some areas the HIV epidemic is approaching the generalized stage.

In the absence of adequate treatment, HIV-infection progresses and passes into its final stage, AIDS, with a lethal outcome on average 12 years after the onset of infection. Current therapy with antiretroviral (ARV) drugs, though not capable of curing the infection, prevents development of its major manifestations, so that people living with HIV/AIDS can work and lead an almost nor-

Table. 5.1. Regions with highest prevalence of HIV-infection (by the end of 2004)³

Regions	Number of cases
Moscow region	25 931
St. Petersburg	25 760
Sverdlovsk region	24 946
Samara region	22 635
Moscow	21 532
Irkutsk region	17 670
Chelyabinsk region	14 575
Orenburg region	12 635
Khanty-Mansi Autonomous Area	8 496
Leningrad region	8 392

Chapter 5

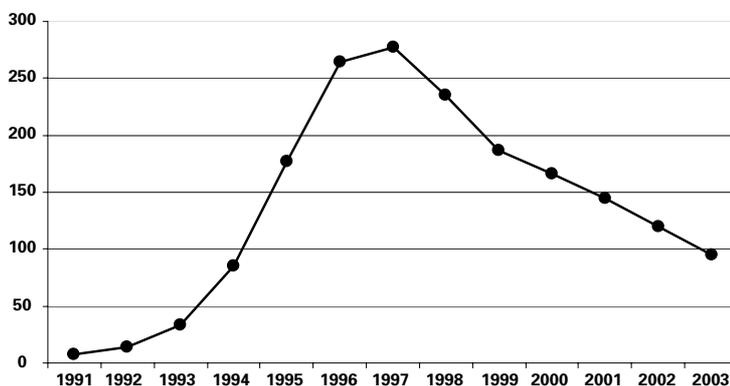
mal, socially active life. Estimates of the number of HIV-infected people, who have died in Russia in the last 10 years vary from 1200⁴ to over 6000². When interpreting these mortality data we should take into account that HIV-infection only started to spread rapidly in Russia in the second half of the 1990s and therefore the full picture of demographic losses and other consequences of HIV/AIDS for the country is not yet clear.

Estimates of the number of people in Russia in need of ARV treatment also vary. According to data of the HIV/AIDS Prevention Department of the Federal Service for Surveillance of Consumer Rights Protection and Human Welfare not more than 20 thousand PLWHA had indications for HAART (Highly Active Antiretroviral Therapy) by May 2005. But a number of national and international experts believe that as many as 50,000 Russians need ARV treatment. At present approximately 3,000 patients actually receive such treatment,^{2,4} i.e. only about 10% of infected people in need of therapy have access to it in Russia. The main obstacle to expansion of ARV treatment programs is the high cost of ARV drugs. The current price of ARV drugs in Russia is one of the highest in the world at between USD 4,000 and USD 10,000 per patient annually. Free access of PLWHA to

ARV treatment is essential from a human rights viewpoint, but ARV treatment also has many other positive aspects for control of HIV/AIDS epidemics. The availability of free access to treatment increases the incentive for people to be tested for HIV, which enables medical institutions to provide HIV prevention, like counselling and behavioural interventions among vulnerable population groups. In addition, ARV drugs significantly reduce concentration of the virus in the blood and other biological fluids, strongly reducing the chances of it being transmitted to other people. ARV treatment during pregnancy and labor sharply reduces the risk of transmitting HIV from mother to child, leading to birth of healthy babies in most cases.

The majority of HIV-infected Russians are young people with low income, mostly with experience of drug injecting. Many of them do not have adequate access to medical services including ARV treatment, nor are they aware of their rights and obligations with respect to HIV infection. They face a generally prejudiced attitude in society towards issues connected with HIV/AIDS, mainly due to widespread lack of knowledge about HIV/AIDS, fear of the disease and misinformation. As a result, HIV-infected people very often find themselves isolated and forced into marginal strata of society. Many experts are worried that negative attitudes towards people living with HIV/AIDS, sometimes observed even among medical personnel, may lead to discrimination in access to life-saving treatment – this is especially true for those patients who became infected by using drugs and who represent the majority of people living with HIV/AIDS in Russia. Another potential obstacle for expansion of ARV therapy in Russia is legal restrictions on use of substitution therapy, which, by reducing intake of illegal opioids

Figure 5.2. Syphilis incidence in Russia per 100,000 of population (1991-2003)¹⁶



and normalizing the life of drug-dependant patients, helps to keep them in treatment programs.¹⁵

5.1.2. OTHER MAJOR DISEASES

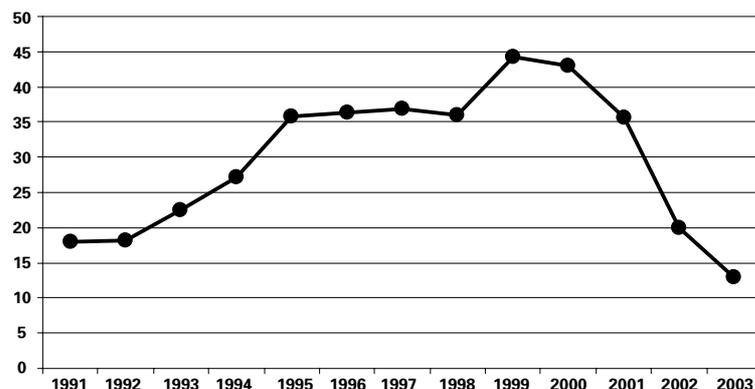
HIV/AIDS is not the only disease that poses a serious threat in Russia. Since the break-up of the USSR Russia has experienced a number of parallel epidemics. The early 1990s saw the beginning of an epidemic of sexually transmitted infections (STI) which has no analogy among industrialized countries at the end of the 20th century. Syphilis incidence, which was most clearly documented, increased 60 times within 6 years and peaked in 1997 (Figure 5.2).

Although the number of registered cases has been steadily declining, the present incidence of STI is still more than 10 times higher than in the EU or in the former Soviet Union. On the one hand such high STI rates demonstrate that young Russians actively practice unprotected sex, and on the other hand any STI increases the risk of HIV transmission.

There has also been a sharp increase in consumption of illegal psychoactive substances in Russia since the beginning of the 1990s. The number of injection-drug users (IDU) in Russia is now estimated at 2 to 4 million people^{12,17} or 1.5-3% of the country's population. This rise in drug use has resulted in increase of viral hepatitis B and C transmission (Figure 5.3), which currently represent the most common co-infections seen among Russian people living with HIV/AIDS.

Decrease in the incidence of viral hepatitis B since 1999 can probably be attributed to the effect of epidemiologic saturation

Figure 5.3. Hepatitis B incidence in Russia per 100,000 of population (1991-2003)¹⁶

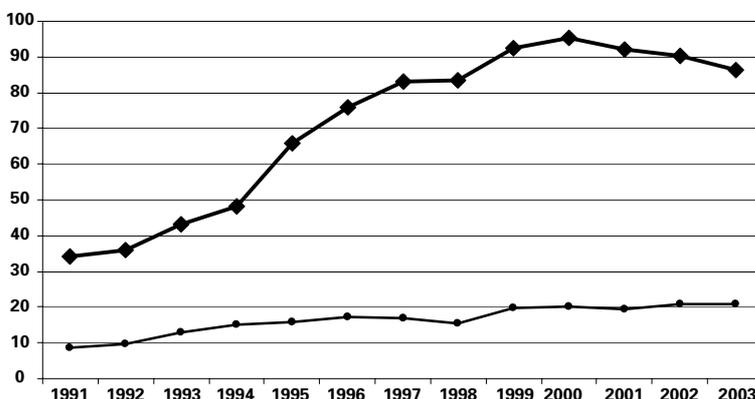


among drug users; on the other hand, it may be the result of a wider coverage by the specific vaccination.

Steady decline in the incidence of tuberculosis, observed in Russia since World War II, also stopped at the beginning of the 1990s. Incidence of tuberculosis and death from the disease more than doubled over 10 years (Figure 5.4).

Many specialists^{18,19} attribute this dramatic development to the combination of several factors: (1) economic instability following the break-up of the Soviet Union; (2) worsening living conditions of a large part of the population; (3) inability to maintain medical infrastructure; (4) collapse

Figure 5.4. Tuberculosis incidence and death rates in Russia per 100,000 of population (1991-2003)¹⁶



of the former system for providing people with medicines; and (5) a sharp rise in the number of prisoners and overcrowding of penitentiary institutions, which traditionally played a significant role in the epidemiology of tuberculosis in Russia.

Although there has been stabilization and even some decrease in TB registration rates in the last three years, the Russian Federation now has the highest tuberculosis mortality in Europe and is among the 22 countries of the world most affected by TB. It is particularly important to note rapid spread of forms of the disease that are resistant to conventional drugs: such forms are now 9-10% of all tuberculosis cases and up to 20% in prisons. Because of this, tuberculosis is now transforming from a definitely curable disease into an illness requiring expensive treatment and frequently having a lethal outcome.

Tuberculosis is the main cause of death from infectious diseases in Russia. Like HIV/AIDS, it affects people in the prime of their working age, mostly males. In the context of the HIV/AIDS epidemic, it is important that tuberculosis is the major cause of death of persons living with HIV/AIDS²⁰. Until recently, these two epidemics had developed in Russia more or less separately but in the last 2 years there has been considerable increase in the number of HIV and tuberculosis co-infections. According to data of the Federal Centre for Anti-Tuberculosis Care of Patients with HIV-infection, the number of patients with TB/HIV co-infection exceeded 7600 by the end of 2004.

Malaria, whose control is given very close attention in MDG 6, does occur in Russia in some endemic regions (e.g. Volgograd region) and in the form of imported cases. However, malaria incidence in

Russia during the last decade has varied from 0.23 to 0.74 per 100,000 population¹⁶, which corresponds to only a few hundred cases per year.

5.2. COMBATING HIV/AIDS AND OTHER MAJOR INFECTIOUS DISEASES IN RUSSIA

5.2.1. ANALYSIS OF CURRENT ACTIONS

5.2.1.1. HIV/AIDS

Over the last few years the Russian Government has become increasingly concerned about HIV/AIDS and tuberculosis problems. It is showing more willingness to assume international obligations to control the epidemics. The Russian Federation has promised to donate USD 20 million for needs of the Global Fund to Fight AIDS, Tuberculosis and Malaria, and Russia is playing a leading role in discussion of HIV/AIDS problems with other members of the Commonwealth of Independent States. Nevertheless, it should be noted that strategy documents prepared by the Russian Government do not fully take into account the importance of combating HIV/AIDS, and top state officials hardly ever mention the HIV/AIDS problem in public speeches.

The Russian Federation has stated its support for the Three Ones strategy suggested by UNAIDS. However, the HIV/AIDS problem is currently within the areas of responsibility of at least four different structures at the federal level, including the Ministry of Health and Social Security, the Federal Service for Surveillance of Consumer Rights Protection and Human Welfare, the Federal Service for Supervision of Healthcare and Social Development Issues, and the Federal Agency

for Healthcare and Social Development. The presence of several coordinating bodies (the Coordination Council on HIV/AIDS of the Ministry of Health and Social Development; the National Coordination Council on AIDS, the Coordination Council on Prevention of Mother-to-Child Transmission of HIV; etc.) demonstrate the lack of a common approach to effective control of the HIV/AIDS epidemic.

Another important point is that the amount of money allocated by the federal budget to combat AIDS (350 million rubles or about USD 12 million in 2004) is completely inadequate given the scale of the Russian epidemic. During the last 2-3 years there has been a clear tendency to transfer spending responsibility for HIV/AIDS to regional budgets, although only a few prosperous regions can afford such expenditure: most territories do not have the necessary resources, especially to buy ARV drugs for a rapidly growing number of PLWHA. The resources being provided for preventive measures like public HIV awareness campaigns, targeted prevention programmes for vulnerable groups with high risk of infection, etc., are also very meagre.⁷

The legal base for combating HIV/AIDS in Russia is the Federal Law "On Prevention of the Spread of the Disease Caused by the Human Immunodeficiency Virus (HIV-infection)", which came into force in 1995, and whose prescribed measures are being implemented through the Federal Anti-HIV/AIDS Program, which is part of the Federal Target Program for 2002-2006 on Prevention of Social Diseases. The Law outlines a wide range of state guarantees on epidemic control and declares the rights of people living with HIV/AIDS. Most experts believe that provisions of the Law do not contradict international legal requirements and conform to recommendations developed on the intergovernmental level.²¹ However, there are serious

problems with practical application of this Law in Russia. A number of regions significantly extend the list of persons liable to compulsory testing for HIV-infection, in violation of the Law, and people living with HIV/AIDS very often have great difficulty exercising their right to free qualified medical care, which is guaranteed by the federal Law. The most frequent reason for denial of care is insufficient financing from federal or regional budgets, but discrimination is not uncommon against patients who, in the opinion of some medical personnel, do not deserve or are unfit for ARV treatment due to drug addiction or other forms of socially unacceptable behaviour. There are also cases when PLWHA are denied employment or are fired if an employer discovers their HIV status. HIV-positive children may be discriminated at pre-school institutions or schools. Children born to HIV-infected mothers and abandoned by their parents offer special cause for concern. They are often kept in infectious disease hospitals for years due to legal irregularities. In the absence of teachers, psychologists and other professionals in these institutions, even HIV-negative children develop mental and emotional retardation due to lack of necessary stimuli.

Civil society plays an enormous role in combating HIV/AIDS in Russia. Most non-governmental organizations (NGOs) working on HIV/AIDS focus their activities on HIV prevention among high risk groups that traditional medical institutions find difficult to contact, and on protecting human rights of PLWHA. Partnership between NGOs, government organizations and UN agencies is increasing year by year, both in joint projects and through participation in work of the Coordinating Council on HIV/AIDS of the Ministry of Health and Social Development, and the Country Coordination Council on AIDS. However, NGOs, especially in the

provinces, often face serious difficulties and even hostility from government health institutions. Almost all NGOs are constantly short of financing because charity mechanisms are not yet developed in Russian society, and there is insufficient government support for their work.

5.2.1.2. TUBERCULOSIS

In order to build up capacity of TB services and upgrade tuberculosis control the Russian Government has adopted a Federal Target Program "Urgent Measures for Tuberculosis Control in Russia in 1998-2004", which was reworked in 2001 and extended to 2006. In 2001, the President signed the Law "On Prevention of the Spread of Tuberculosis in the Russian Federation," and the Government subsequently approved Decree No. 892 on implementation of this Law. Cooperation between the Ministry of Health, WHO and major international donors has been organized through the High-Level Working Group on Tuberculosis. Establishment of this Group in 1999 was instrumental in starting a constructive dialogue between Russian and international experts. There has been major progress in revision of existing national methods of tuberculosis control and improving their conformity with international standards, as reflected in the Orders by the Russian Ministry of Health No. 109 "On Improvement of Anti-tuberculosis Measures in the Russian Federation", and No. 50 "On Introduction of Recording and Reporting Documentation for TB Monitoring". However, these positive results are not sufficient to effectively control tuberculosis in Russia. According to WHO,²² long-term hospital treatment of tuberculosis patients is still common in Russia, which leads to unjustified diversion of limited resources to support a huge infrastructure of

anti-tuberculosis institutions. Another traditionally difficult problem is insufficient cooperation between penitentiary and civilian medical services, leading to interruption of therapy and reducing the effectiveness of tuberculosis treatment. An increasing proportion of TB cases with multiple drug resistance indicate that the current health system is unable to cure a considerable number of tuberculosis cases. Practical implementation of the Directly Observed Treatment Short Course (DOTS), recommended by WHO, remains a difficult task even in its Russian version, especially in remote regions. Apparent lack of qualified personnel and inadequate following of recommendations can jeopardize results that have already been achieved to date. All this is aggravated by the fact that observed convergence of HIV and TB epidemics and the rise in numbers of people living with AIDS, expected in the near future, may deteriorate the tuberculosis situation.

Since the late 1990s several international HIV/AIDS and tuberculosis control projects have been implemented in Russia with the financial support of different UN agencies, USAID, DFID (UK), CIDA (Canada), TACIS, Open Society Institute, and other donors. In 2003, in the framework of the World Bank loan, a major five-year project was launched for fighting tuberculosis (with about USD 100 million financing) and AIDS (USD 50 million financing). In 2004 two programs started in Russia with financial support from GFATM: a large-scale GLOBUS project aimed at HIV/AIDS prevention and treatment in 10 regions of the Russian Federation (about USD 89 million for five years) and a regional TB control project in the Tomsk region (about USD 10 million for five years). It is expected that another five-year project will be supported by the Global Fund in 2005, this time for implementation of treatment programs: USD 120 million for

HIV/AIDS and USD 90 million for tuberculosis. These programs, however, do not cover all Russian needs and are limited in terms of duration: when international projects come to an end, Russia will have to rely on its own resources to combat HIV/AIDS and tuberculosis. There is therefore an urgent need to build up the country's potential and to increase government allocations for long-term implementation of sustainable public health measures, which are independent of donor aid.

5.2.2. ADAPTATION OF TARGETS AND INDICATORS OF GOAL 6 TO RUSSIAN CONDITIONS

The application of MDG philosophy in the fight against HIV/AIDS and other major infectious diseases could contribute to strengthening of health in Russia and rise of Russia's Human Development Index. Target 7 "To have halted by 2015, and begun to reverse, the spread of HIV/AIDS" fully corresponds to the country's needs and does not require any modification. Indicator 18 "HIV prevalence among pregnant women aged 15-24" also seems to be adequate for Russia, since further impact of the epidemic in Russia will depend on extent of the spread of HIV/AIDS among the general population. This Indicator might require a slight rephrasing due to the nature of statistical data, which are recorded in Russia. It would best be rephrased as "Percentage of HIV-positive pregnant women".

It is obvious that long-term trends in development of HIV/AIDS epidemics depend on the level of the population's awareness and the prevalence of certain behavior types. The components of Indicator 19 are therefore highly important: "Condom use at last sexual act with non-regular partner" (19a); and

Box 5.1. Russia's efforts to achieve Goal 6 of the UN Millennium Development Goals: "To have halted by 2015, and begun to reverse, the spread of HIV/AIDS"

The Russian Federation has recently devoted considerable efforts to fighting the HIV/AIDS epidemic. The Government has set up the Coordination Council on HIV/AIDS issues (within the Ministry of Health and Social Development). The Council's members are representatives of nine federal ministries and agencies, nine NGOs, medical practitioners from regions, and people living with HIV/AIDS.

Financing of HIV/AIDS preventive control in Government budgets at all levels has substantially increased. The Federal Anti-HIV/AIDS Program is now being implemented, and funding of preventive activities has substantially increased: federal and regional budgets allotted 2 billion rubles (USD 70 million) for such activities in 2004 alone.

It has become easier for HIV-infected people to obtain access to proper treatment: antiretroviral drugs are becoming cheaper, health services for this category of patients have improved, and medical personnel and social workers have become much better informed about HIV/AIDS issues.

More than 200 Russian non-governmental organizations work with Government organizations and UN agencies in different activities aimed at HIV prevention among different population groups. Five leading NGOs formed a consortium to fight HIV/AIDS in Russia and applied for funding to the Global Fund. The program obtained support and is now being implemented in 10 regions of the Russian Federation. This demonstrates a high professional level of NGOs and positive trends in development of civil society as a whole.

The Russian Federation has supported application of the "Three Ones" principles at the national level. These principles, suggested by UNAIDS, include (1) a single national strategy to control the epidemic, (2) a single national coordinating center, and (3) a single system of monitoring and performance measurement to control HIV/AIDS.

Along with increase of activities against HIV-infection in the country, Russia is also taking an active part in international anti-HIV/AIDS efforts. Russia endorsed the idea of establishing the Global Fund to Fight AIDS, Tuberculosis and Malaria and promised to assign USD 20 million (USD 10 million of which have been already transferred). Russia has brought attention of other CIS member states to the problem of HIV/AIDS in their countries and supported adoption of relevant measures in those countries in pursuance of the UN Declaration of Commitment on HIV/AIDS signed in June 2001. The HIV/AIDS problem receives considerable attention as part of the work of the G8. At the G8 Summit at Sea Island in 2004 Russia and other G8 member states supported the US initiative on establishment of the Global HIV/AIDS Vaccine Enterprise. Another example of international cooperation is the partnership formed by Russia, Brazil, China, India, Nigeria, and Ukraine to exchange technologies on HIV/AIDS matters. Russia has a major scientific potential in this field and is ready to share it with other countries to eradicate the epidemic.

Russia will continue demonstrating its political will to solve problems caused by HIV-infection and applying necessary efforts, both nationally and internationally, to achieve Millennium Development Goal 6 aimed at prevention of HIV/AIDS spread in the world.

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"Proportion of population aged 15-24 years with the accurate knowledge about HIV/AIDS" (19b).

The Indicator "Condom use as a share of contraceptive prevalence" (19c) can show the level of condom use as well as give indirect information about efficiency of campaigns for safe sex. But the fact that this Indicator is determined within the total prevalence of other means of contraception makes

it quite difficult to interpret the data. It is also unclear what levels of this Indicator should be considered optimal for the target setting.

Indicator 20 “Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years” is extremely important for developing countries that have suffered from severe HIV/AIDS epidemics, e.g. sub-Saharan Africa. But this Indicator will not be meaningful in Russia because orphanhood in Russia is almost not associated with HIV/AIDS. Two additional Indicators for Target 7 seem to be much more relevant:

(1) “Number of new cases of HIV-infection registered during a year” - this Indicator shows overall trends of epidemic development; and

(2) “Percentage of people with late stages of HIV-infection receiving adequate therapy” - this Indicator reflects one of the most acute current problems of the Russian epidemic, which is access to life-saving treatment.

Given the structure of infectious disease morbidity in Russia, Target 8 “To have halted by 2015 and begun to reverse the incidence of malaria and other major diseases” should be changed for Russia. It could be formulated as follows: “To have halted the spread of tuberculosis and other socially-determined infectious diseases and considerably reduced incidence of these diseases.” Accordingly, Indicators 21 “Prevalence and death rates associated with malaria” and 22 “Proportion of population in malaria-risk areas using effective malaria prevention and treatment measures” could be omitted.

Indicator 23 “Prevalence and death rates associated with tuberculosis” is essential for Russia, but the following slight reformulation would help to take account of the nature of health statistics, which are collected in Russia:

23a: Tuberculosis incidence per 100,000 population; and

23b: Tuberculosis mortality per 100,000 population.

Russian national standards for tuberculosis treatment are close but not identical to the DOTS strategy recommended by WHO. Therefore, instead of the regular wording “Proportion of TB cases detected and cured under DOTS”, for Russia it would be better to say “Proportion of TB cases detected and cured under direct observation”.

Besides, given the role that STI can play as an indicator of high-risk sexual behavior and as a predictor for further development of the Russian HIV/AIDS epidemic, it is reasonable to add one more indicator to Target 8, namely: “Syphilis incidence per 100,000 population” (Appendix 5.1. Table).

5.3. POSSIBLE SCENARIOS AND TARGET PROGRESS INDICATORS

The problem of HIV/AIDS, tuberculosis and other infectious diseases goes far beyond the framework of the health system, threatening adverse consequences for the demographic situation in Russia, development of its human resources, economy and defense potential. As the birth rate in Russia remains at a very low level, the coming increase in HIV/AIDS mortality and possible intensification of the tuberculosis epidemic combined with HIV infection threatens rapid increase of population losses in the next decade. The main victims of these infections are young people who will not be able to work normally and contribute to national welfare. Future aggravation of negative mortality trends may have a negative effect on size and composition of the labor force and considerably speed up the process of depopulation in Russia.

Growing numbers of people in need of long-term therapy will require increase in resources that could otherwise be invested in the country's economic development. There will be a loss of productive potential as family, friends and others are diverted from various activities to take care of HIV-infected people. In the long term there is a threat of overall reduction of activity at the macroeconomic level, causing reduction of output competitiveness and export potential.²³

Population shrinkage and general health deterioration among conscripts have been causing problems with call-up to the Russian Armed Forces for quite a while. Continuing spread of HIV/AIDS among young people may further reduce supply of conscripts and have negative impact on the country's defense capacity.

The number of people in Russia with HIV/AIDS will inevitably grow in coming years even if effective preventive programs start today. Forecasts by the World Bank²⁴ and the US National Intelligence Council²⁵ suggest that the number of HIV-infected Russians may reach 9.6 million by 2015, and in the absence of wide access to ARV therapy male life expectancy may reduce by four years. In such a case, economic consequences of the epidemic could result in a GDP decrease of 7% by 2015. However, the majority of these pessimistic scenarios were based on the HIV trends seen in Russia in 1999-2001. More recent slowdown in spread of the epidemic offers hope that the worst expectations of avalanche-like development of the epidemic will not occur in Russia. Nevertheless, increased HIV/AIDS-related mortality will definitely contribute to already high population losses in Russia in the near future, and the negative demographic effect will be intensified by the fact that HIV/AIDS mostly affects young people with consequent decline of the birth rate.

Limitations of existing forecasts are not a purely Russian phenomenon and are due to the fact that spread of HIV/AIDS is largely dependent on hidden forms of behaviour, which cannot be studied directly. In addition, there are major variations in expert assessments of the size of major risk groups as well as the total number of PLWHA in Russia. As a result, scenarios and forecasts tend to be based on a large number of assumptions, considerably reducing their validity.²⁶ Dynamism of the epidemiological process, and spread of the disease to new social groups also result in low predictability. The rate and scale of the world HIV/AIDS epidemic in the 1990s considerably exceeded all export forecasts at the beginning of the decade.

According to the prognosis of Vadim V. Pokrovsky, Head of the Federal AIDS Centre⁶, the number of PLWHA in Russia by 2015, assuming realization of the best-case scenario involving large-scale expansion of prevention programs, will be 3 million. In the pessimistic scenario, based on active heterosexual HIV spread among the general population (supported by high STI incidence rates in the country), the number of those infected will be 5-6 million. Forecast of the HIV/AIDS mortality rate is more difficult, but it will largely depend on the levels of access to ARV treatment, which Russia can provide for its citizens in years to come. Taking into account the time of the start of the HIV epidemic in Russia and the average lifespan of untreated HIV-infected persons (12 years), it is obvious that without a large-scale expansion of ARV treatment programs, Russia will see numerous deaths of people living with HIV/AIDS in 2008-2010 and as many as 1-1.5 million lives lost by 2015. The majority of PLWHA will die of tuberculosis, aggravating the general epidemiological situation in the country and leading to even bigger population losses.

Joint impact of HIV/AIDS and tuberculosis on the country's economy will be serious and can put Government targets of eradicating poverty and doubling GDP into question.

In the light of these scenarios Goal indicators for 2015 for Target 7 "To have halted and begun to reverse the spread of HIV/AIDS infection" should be based on optimistic expectations, whose fulfillment will depend on large-scale expansion of prevention and treatment programs. Significant reduction of high-risk behavior could then stabilize the HIV/AIDS epidemic at an endemic level, corresponding to current morbidity levels in the majority of industrialized European countries (i.e. HIV prevalence among the adult population at a level of about 0.3-0.4%). Goal indicators for Target 8 "To have halted by 2015 and begun to reverse the incidence of malaria and other major diseases" would be morbidity and mortality rates registered in Russia in the early 1990s (Appendix 5.1. Table).

5.4. MONITORING OF PROGRESS TOWARDS MDG 6

Data collection on the majority of indicators for Goal 6 is not difficult, because the information can be found either in annual statistical data of the Ministry of Health or be easily calculated on the basis of routine statistics. These indicators include:

- "HIV prevalence among pregnant women"
- "Number of new HIV cases registered during a year"
- "Tuberculosis prevalence per 100,000 population"
- "Tuberculosis mortality rate per 100,000 population"
- "Proportion of tuberculosis cases detected and cured under direct observation"
- "Syphilis incidence per 100,000 population"

Behavior indicators are somewhat more difficult, because they require data from special sociological studies:

- "Condom use at last sexual act with non-regular partner"
- "Proportion of population aged 15-24 years with the right knowledge about HIV/AIDS"
- "Condom use rate of the contraceptive prevalence rate" (19c)

However, some of these indicators are already regularly assessed as part of several major studies.⁹ In addition, development of the national system of monitoring and evaluation as well as introduction of second generation epidemiological surveillance methods should make it possible to effectively collect all necessary data.

The indicator "Percentage of people with late stages of HIV-infection receiving adequate therapy" can be calculated on the basis of regional statistics and be verified against the data of pilot studies regularly carried out in the framework of monitoring and evaluation of HIV/AIDS control programs.

5.5. CONCLUSIONS AND RECOMMENDATIONS

The spread of HIV-infection and its combination with epidemics of tuberculosis and sexually transmitted infections pose a threat to Russia's welfare and security, but timely and appropriate measures can considerably improve the situation. The earlier investments are made in proper programs, the higher will be the economic and social gains in terms of deaths prevented and healthy years of productive life saved. Common problems of the governmental programs to control HIV/AIDS, tuberculosis and STIs are, on the one hand, insufficient financing and, on the other hand, diversion of major funds to

support existing medical infrastructure, which does not match the new epidemiological conditions. Effective public health measures that are most appropriate for the current situation often represent a major challenge to traditional thinking and entrenched financing mechanisms, so that obstacles are placed in the way of their introduction to practice.

The following recommendations can be made based on analysis of the situation with HIV/AIDS and other major infectious diseases in Russia:

1. Russia urgently needs a political commitment to fight HIV/AIDS that implies recognition of the problem by the country's leadership and continuous implementation of comprehensive measures against the epidemic. Experience of other countries strongly suggests that in the absence of far-sighted leadership, control of the epidemic will be limited and ineffective.

2. It is necessary to overcome current lack of administrative coordination in dealing with HIV/AIDS. To achieve this, there is need for a single government body or a joint committee on HIV/AIDS that would be authorized to develop and supervise implementation of anti-HIV/AIDS programs on the federal, regional, and municipal levels.

3. Financing of anti-HIV/AIDS and tuberculosis measures should be substantially increased to fully cover all expenses required for prevention and treatment programs. International grants and credits cannot substitute Russian Government funding for epidemic control.

4. A comprehensive strategy to address HIV/AIDS should be included in Russia's long-term economic programs. The most effective control measures, including ARV therapy, should be instated as Government policy and secured with strong financial guarantees.

5. HIV/AIDS epidemiological surveillance needs to be improved to assure better forecasting and efficient decisions to fight the epidemic. The registration of new HIV cases –

currently the basis of epidemiological surveillance in the country - should be supplemented by second-generation methods, i.e. by regular HIV/AIDS monitoring among target population groups and by behavioral studies.

6. The health system should learn how to provide services, which are needed for difficult categories of patients with high-risk behavior, whose numbers are expected to rapidly increase in the near future. Given the size of the problem, the required optimization of treatment methods will need to be based on wider use of out-patient approaches and internationally recognized, standardized therapy regimens.

7. Mass awareness campaigns are needed on HIV prevention among the general population and to promote tolerance and non-stigmatization of people living with HIV/AIDS.

8. Drug use was and is the major cause of HIV/AIDS spread in Russia. Experience of other countries proves that prevention measures targeting IDUs, including needle exchange programs and improved access to drug dependency treatment, can substantially reduce spread of HIV-infection. Therefore, along with measures to reduce supply of and demand for narcotics, Russia needs to support harm-reduction programs. Treatment and rehabilitation of drug addicts also needs to be improved, including provision of access to substitution therapy.

9. International experience shows that repressive strategies are ineffective in fighting HIV and provide a very negative impact on the legislative climate necessary for implementation of modern anti-epidemic programs. HIV control in Russia should be organized in full conformity to international recommendations as a comprehensive package of medical, economic, and social measures, with due observance of human rights obligations.

10. Considerable reduction of prices for ARV drugs is absolutely crucial for the implementation of large-scale sustainable programs of HIV/AIDS treatment in Russia. This

can be achieved through a range of measures, including negotiations with pharmaceutical companies, importing generic drugs, national production of ARV medicines, etc.

11. It is necessary to expand cooperation with NGOs fighting HIV/AIDS, and this should include development of mechanisms to provide such NGOs with government support, particularly financial support, which could be done by contracting NGOs for provision of treatment and prevention services.

12. People living with HIV/AIDS should be actively involved in development and implementation of programs aimed at fighting the epidemic.

13. Another financial resource for HIV/AIDS programs could be partnership between business and society. Russian businessmen and trade unions are potentially powerful allies in fighting HIV/AIDS, but they are not yet involved in the process. Business leaders can

contribute to the fight against HIV/AIDS by supporting educational programs that inform employees on HIV/AIDS prevention measures, by publicly denouncing stigmatization of PLWHA, and by support of public awareness and other prevention campaigns on HIV/AIDS.

To conclude, successful combating of HIV/AIDS and other major infectious diseases is only possible through a comprehensive approach based on best international practices in prevention, treatment, care, and human rights. To succeed Russia will need serious reform of its health system, substantial increase in financing of epidemic control programs, and united efforts by government structures, the business sector, NGOs and people living with HIV/AIDS. None of these tasks are easy, but addressing each of them will contribute to national well-being and prosperity.

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Appendix 5.1

Table. MDG Goal 6. Combat HIV/AIDS and other diseases

MDG Targets	MDG Targets in the Russian context	Indicators of progress in achieving the goals	Indicators of progress in achieving the goals for Russia	Current value of the indicator	Goal indicators for year 2015
Target 7. Halt and begin to reverse the spread of HIV/AIDS	Target 7. Halt and begin to reverse the spread of HIV/AIDS	18. The number of persons infected among pregnant women aged 15-24 years 19. Frequency of use of condoms 19a. Use of condom in the last sexual act with a non-regular partner 19b. Percentage of persons aged 15-24 with correct knowledge on HIV/AIDS 19c. The frequency of using a condom as a proportion of general use of contraception 20. The percentage of orphans among school children aged 10-14	18. The percentage of pregnant women that are infected with HIV/AIDS 19a. Use of condom in the last sexual act with a non-regular partner 19b. Percentage of persons aged 15-24 with correct knowledge on HIV/AIDS 19c. The frequency of using a condom as a proportion of general use of contraception ...Number of new HIV infections registered within the course of a year ...The percentage of people in late phases of HIV/AIDS who receive adequate therapy	~0.3% ~40-50% ~30% No data ~38,000 ~5-10%	No more than 0.4% ~80% ~80% ~25,000 ~85%
Target 8. Halt and begin the reverse the incidence of malaria and other major diseases	Target 8. Halt and begin the reverse the incidence of tuberculosis (TB) and other socially-determined infectious diseases	21. Indicators of the spread of malaria and related mortality 22. The proportions of population living in areas of high risk of malaria, who use effective preventative and treatment measures 23. The indicators of spread of tuberculosis and related mortality 24. Proportion of tuberculosis cases that are diagnosed and undergo medical treatment in accordance with the short course of directly observed treatment (DOTS)	- - 23a. Tuberculosis incidence per 100,000 population 23b. Tuberculosis mortality per 100,000 population. 24. Proportion of TB cases that undergo medical treatment under direct observation ... Syphilis incidence per 100,000 population	~90 ~35 ~95	35 10 80% ~10