HIV/AIDS in Russia and Eurasia

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HIV/AIDS in Russia

Alexey Bobrik and Judyth L. Twigg

In May of 2006, Moscow played host to the first-ever regional conference on HIV/AIDS in Eastern Europe and Central Asia. Well attended by the governmental, NGO, scientific, and international communities, it was so successful that plans are in the works to make it a biennial event. This meeting coincided with a string of milestones in the history of Russian government commitment to the fight against HIV and AIDS: President Vladimir Putin declared HIV/AIDS and infectious diseases to be a priority for the St. Petersburg G8 meeting in July 2006; the Russian State Duma held February 2006 hearings on HIV and its current and future impact on society; most importantly, Putin announced in April of 2006 that he would supply the funds to match the rhetoric, with a $175 million pledge of federal resources for HIV over the current year (a thirtyfold increase over 2005), and almost $285 million in 2007.

Should the Kremlin's new attention and attitude—a dramatic change from the seemingly deliberate apathy and complacency of the preceding twenty years—prove genuine and sustainable, it could usher in a new era of coping with HIV in Russia. Yet challenges remain. First of all, the new show of government commitment must prove over time to be lasting, broad, and deep, with efforts by the center to corral local governments and parliamentary deputies who continue to try to block HIV prevention and treatment efforts. Political pronouncements must also be matched by effective policy, in particular with regard to substitution therapy (still illegal in Russia, despite its proven effectiveness in Kyrgyzstan, Kazakstan, and Moldova), harm reduction, availability

of antiretroviral therapy, and discrimination against affected groups. Finally, commitment is useless without effective capacity to spend new resources and implement new programs; the Russian government must work together with civil society, the church, and international organizations in a unified approach to capacity building.

Russia remains one of the world's great powers. As its leaders have insisted with increasing vociferousness in recent months, Russia can play a significant role in tackling the world's infectious disease problems. But in the process of reasserting its presence on the international stage, it cannot turn its back on its own people who are suffering or at risk. This chapter summarizes the HIV/AIDS situation in Russia. It reflects on the epidemiological, cultural, political, and institutional factors that have led to the current state of affairs, and makes specific recommendations for future policy development.

Summary of the Epidemic

The first incursion of HIV into Russia took place in the mid- to late 1980s. During this time period, the predominant risk factor for HIV was unprotected sex with non-Russians, primarily male students from African countries (Vinokur et al., 2001). An important exception to the prevailing transmission modes was an outbreak of HIV among children in a pediatric hospital, transmitted through inadequate precautions in health care procedures (see chapter one in volume one).

During the late 1980s, however, the largest share of HIV-positive Russians was men who had sex with men (MSM), and the vast majority of this group had no contacts with foreigners. From 1991 through 1995, about 40 percent of all new HIV cases in Russia could be attributed to homosexual transmission and about 80 percent of new cases to homosexual or heterosexual contacts. Remarkably, this early phase of HIV in Russia did not appear to penetrate the injection drug-using (IDU) community at all. As of mid-1990, no HIV infection was reported among Soviet IDUs (Savchenko and Pokrovsky, 1991). At the end of 1995, only seven out of a total of 1,062 reported cases of HIV were among IDU (Dehne et al., 1999).

Beginning in 1996, the transmission of HIV cases among IDU accelerated against a backdrop of skyrocketing increases in injection drug use and decreasing average age of first injection that began in the early 1990s (Kramer, 2003). Kaliningrad was the first city to report a rapid escalation of cases, followed in 1996 and 1997 by Krasnodar, Nizhny

Novgorod, Rostov-on-Don, Saratov, Tula, Tyumen, and Tver (Pokrovsky et al., 1998). Moscow and St. Petersburg joined the list in 1999. HIV spreads among IDUs due to needle sharing and practices related to the distribution and consumption of drugs.

From 1996 through 2001 the number of new HIV cases grew rapidly, but in the subsequent four years the growth in officially reported annual incidence has slowed down considerably (figure 1.1). These trends can be interpreted in a variety of ways. Some specialists simply deny the validity of the official statistics altogether. They claim that because testing itself has become less widespread and many vulnerable groups, particularly sex workers and MSM, are almost absent from official statistics, registration of HIV infection is incomplete (AFEW, 2004; TPAA, 2003). Others claim that the Russian HIV/AIDS epidemic has stabilized and is developing according to an optimistic scenario (Sel'tsovskiy et al., 2004). A third argument (Pokrovskiy, 2004) holds that the reduction in the number of new registered cases is temporary and should be attributed mainly to the fact that the HIV/AIDS epidemic is moving to a new phase characterized by the 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

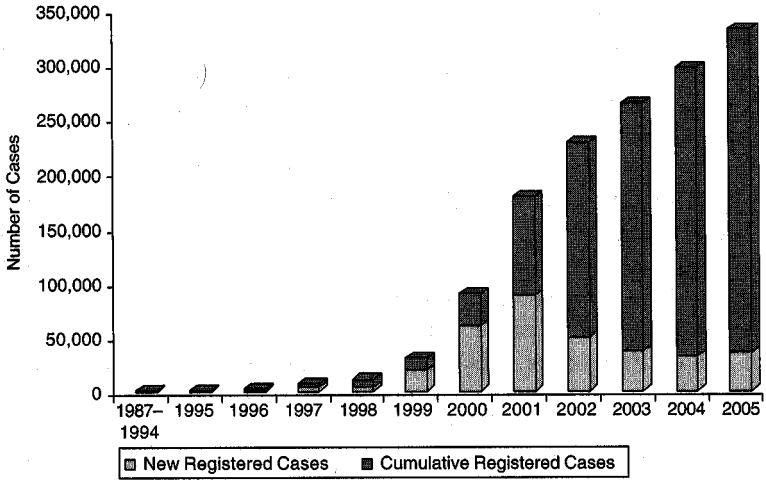

Figure 1.1 Officially Registered Cases of HIV Infection in Russia, 1987–December 2005

Source: Data from the Russian Federal AIDS Center.

in 2004 almost reached the level of the previous year, and the number of new cases in 2005 represented a slight increase over 2004.

In any event, by the end of 2005, the total number of officially registered cases of HIV/AIDS in Russia was almost 332,000, with the actual number of infections widely agreed to be much higher. According to UNAIDS data, about 860,000 people are currently living with HIV/AIDS in Russia, with the range of experts' assessments falling between 420,000 and 1,400,000 people (UNAIDS, 2004). The debate over the precise number of infected people has become somewhat counterproductive, as it has consistently diverted attention away from the more pressing concerns of raising political commitment, allocating resources for prevention and treatment programs, and coordinating strategy and tactics for fighting the epidemic.

According to UNAIDS and WHO classification schemes, Russia's epidemic at the moment is a concentrated one, that is, HIV prevalence is more than five percent in at least one population group (IDUs in the Russian case), but still less than one percent among urban pregnant women (considered to be a marker for the general adult population). Different regions within Russia, however, fall into different phases of epidemic: in some regions the epidemic is in the nascent stage, in most oblasts 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 death occurring, on average, twelve years after the onset of infection. Current therapy with antiretroviral (ARV) drugs, though not capable of curing the infection, prevents or delays the development of its major manifestations, so that people living with HIV/AIDS can work and lead socially and professionally active lives. Official Russian estimates of the number of HIV-infected people who have died during the last ten years vary from 1,200 (Russian Federal Service for the Protection of Consumers and the Health of the Population) to over 6,000 (Russian Federal AIDS Center). When interpreting these mortality data we should take into account that HIV infection started to spread rapidly in Russia only 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.

HIV/AIDS has been recorded in all administrative regions of the Russian Federation (figures 1.2–1.6). There is significant variation, however, in the infection prevalence in Russia's territories. About 70 percent of all cases are concentrated in ten highly developed

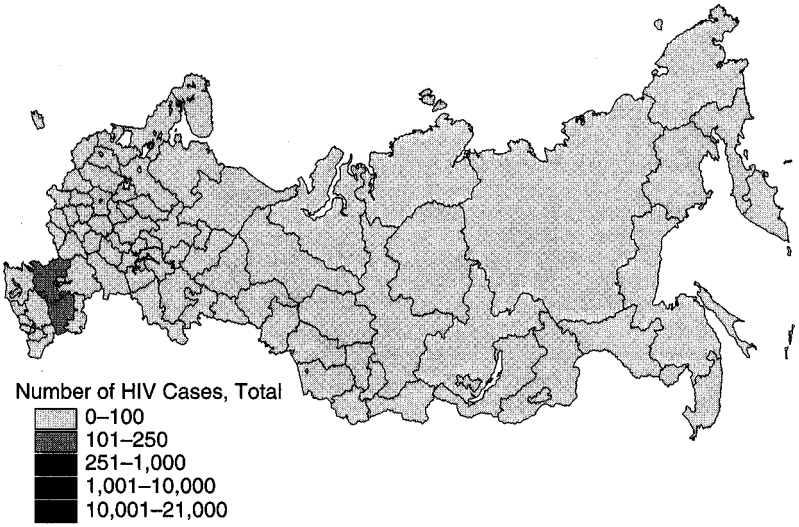

Figure 1.2 Regional Map of HIV in Russia, 1995

Note: The two regions with over 100 cases are Rostov and Kalmykia, both of which experienced nosocomial pediatric outbreaks in 1989 and 1990.

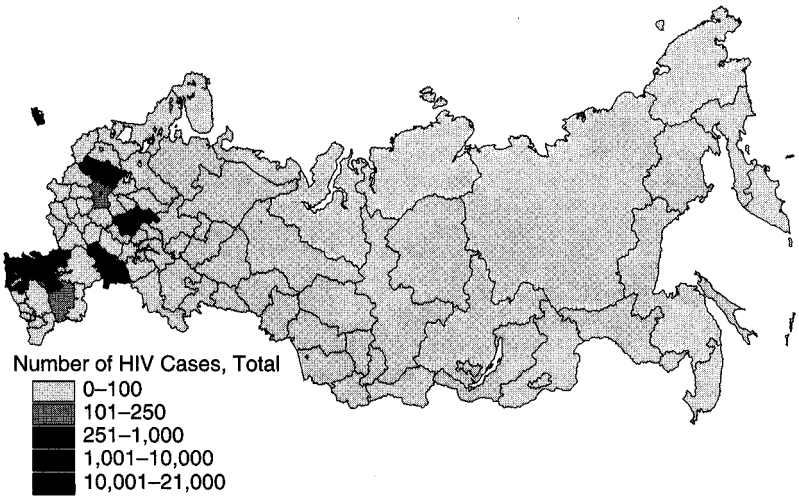

Figure 1.3 Regional Map of HIV in Russia, 1997

Note: Note the early emergence of the IDU-related epidemic in Kaliningrad and Krasnodar.

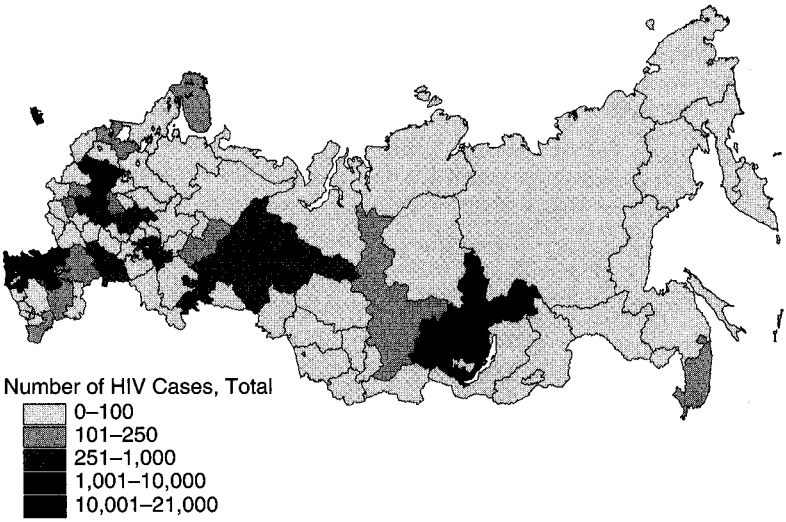

Figure 1.4 Regional Map of HIV in Russia, 1999

Note: Note the emerging pattern of high-prevalence regions mirroring the drug-trafficking pathways from Central Asia into Western Europe.

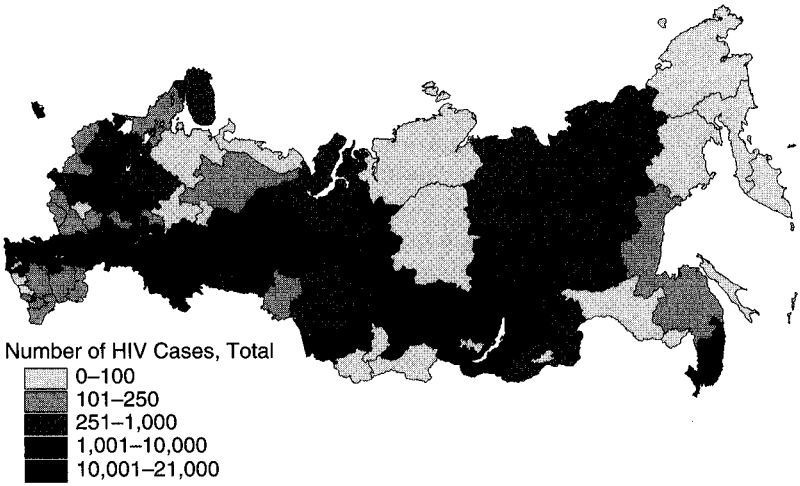

Figure 1.5 Regional Map of HIV in Russia, 2001

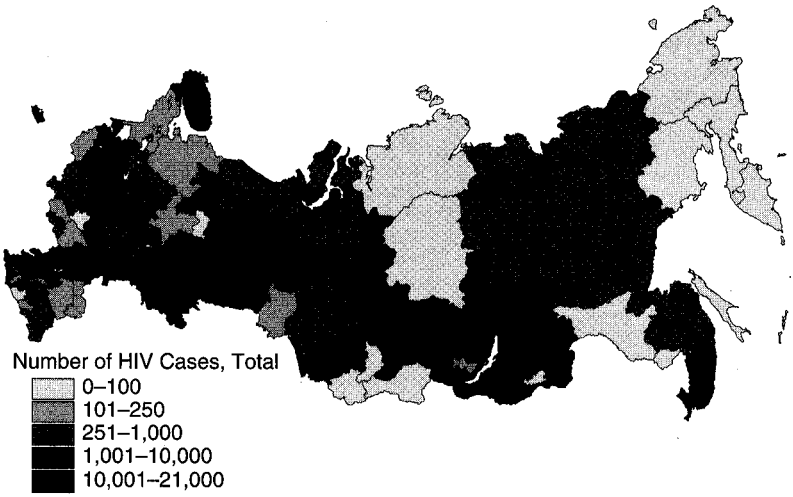

Figure 1.6 Regional Map of HIV in Russia, 2003

Table 1.1 Regions with Highest Prevalence of HIV Infection (At year-end 2004)

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

Source: Data from the Russian Federal AIDS Center.

regions (table 1.1), and the majority of the HIV infected are young people of working age (figure 1.7). One hypothesis for this pattern is that HIV has spread most rapidly in the economically more prosperous and industrially more developed regions because these markets are targeted by drug dealers (Sokolova, Ladnaia, and Pokrovsky, 2002). In recent years the infection has spread rapidly in small towns and even

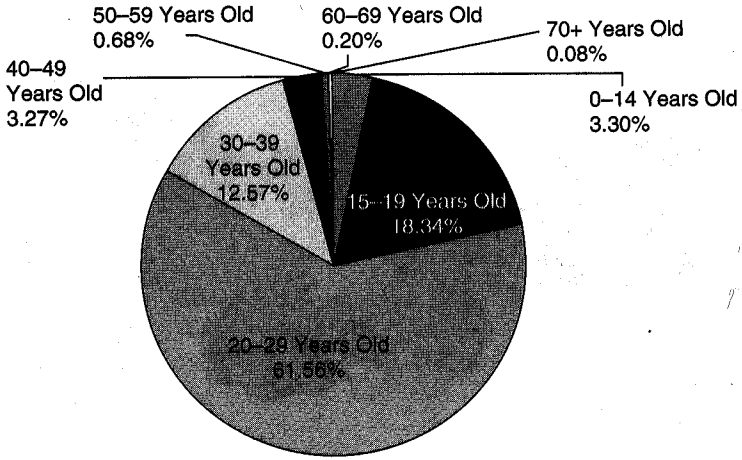

Figure 1.7 Age Distribution of HIV Cases in Russia, 2003, as Percentage of Total Cases

in rural areas of Russia. The absolute numbers remain larger in urban locales, but the proportions are changing. This shift is explained partially by the saturation of IDUs with HIV in the major cities, partially by the later arrival of drug use and HIV to smaller communities, and partially by more intensive case finding in the large urban areas during the last decade.

Risk Groups: Injection Drug Users

Over the last ten years the Russian HIV epidemic has spread mainly among injection drug users. Since the beginning of the 1990s in Russia, there has been a sharp increase in the consumption of illegal psychoactive substances. The number of injection drug users in Russia is currently estimated at two to four million people (Kramer, 2003; Rhodes et al., 2004), or 1.5–3 percent of the country's population. Some localized studies put the prevalence of drug use even higher; a survey in Togliatti City from 2001–2004 gave a population prevalence of 5.4 percent of the registered population and 2.7 percent of the total population (including migrants) aged 15–44 years (Platt et al., 2004).

The Kaliningrad region provides an example of the rapidity of spread of HIV among IDUs: HIV incidence in that region rose from less than one to more than 100 per month between August and September of 1996, and 80 percent of those cases were associated with

IDU (Leinikki, 1997; Mashkilleyson and Leinikki, 1999; Myers, 2002; Rhodes et al., 1999). Similar but more recent evidence of a rapid and explosive epidemic of HIV among IDU communities has emerged from Togliatti City in the Samara region (Meier, 2000; Rhodes et al., 2002, 2003). Sharing of needles and syringes is believed to be the main mode of HIV transmission among IDUs.

Other Risk Groups

Increased prevalence of HIV infection is also present among other common risk groups, including sex workers, men having sex with men, and prisoners. There are no reliable studies that track HIV prevalence among commercial sex workers (CSWs). Sex work in Russia is not a profession with clear boundaries. Although the majority of CSWs are female, there are male sex workers in the larger cities. Some women engage in sex work as a full-time profession, but a significantly larger number do so intermittently and/or on a part-time basis, usually as a supplement to other employment. These women do not consider themselves to be prostitutes, and they encompass a broad range of the socioeconomic spectrum (Aral et al., 2005). Women who have been arrested in Moscow and who consistently work several times a month in the sex trade, for example, have identified themselves as students, sales clerks, and physicians (Aral et al., 2003). Sex workers are a potential bridge population for the spread of HIV into the general population.

Few studies have been conducted of HIV risk behaviors among Russia's young, sexually active MSM population, and few HIV/AIDS prevention campaigns have been targeted toward MSM. One of the few published studies surveyed attendees at all five gay nightclubs in St. Petersburg during June 2000 (Amirkhanian, Kelly, Kukharsky, et al., 2001; Kelly et al., 2001, 2002). Nearly half of respondents reported engaging in unprotected anal sex in the prior three months, and only 30 percent reported using condoms consistently. Respondents had relatively low levels of HIV-risk behavior knowledge. More than a third of the MSM (37 percent) had female sexual partners in the previous three months, and nearly a quarter of the men (23 percent) exchanged sex for money or other valuables. A study of 100 gay men in St. Petersburg found that only 40 reported regular condom use, and almost half who engaged in casual sex did not feel that they were at risk of contracting HIV (Davydova et al., 2002, abstract).

Since the late 1990s, roughly 15 percent of reported HIV infections have been among prisoners (Frost and Tchertkov, 2002). Among more

than one million people incarcerated in Russia, the number of HIV-positive inmates increased from 3,010 in late 1999 to 21,516 as of July 2001 and 37,000 by 2004—a significant percentage of Russia's total number of HIV cases (Bobrik, 2004; Grigoriev, 2002). As of mid-2001, in the correctional facilities of St. Petersburg alone, there were 400 IDUs and 2,500 HIV-positive inmates (Bakulina, 2002). As recently as 2000, however, Ministry of Justice officials claimed that all HIV-infected prisoners had acquired the virus before entering the penitentiary system and that no one had actually been infected while incarcerated (Vinokur et al., 2001). In one correctional colony in Tatarstan, however, 260 prisoners acquired HIV while in prison during the year 2003 (Bobrik, 2004). The main risk factors for HIV transmission in Russian penal institutions include needle-sharing among IDUs, whose numbers among prisoners have increased dramatically since 2001, and also the sharing of tattooing equipment.

Screening procedures for the blood supply have remained effective, although numerous reports have called attention to the risk of blood donations from IDUs (Hamers and Downs, 2003).

The HIV infection rate among blood donors was 211 times higher in 2001 than in 1995, reflecting higher infection rates among IDUs who donate blood (Ladnaia et al., 2002). Blood donors are paid in Russia. In 1995, Moscow's public health director centralized blood supply to hospitals in a network of city blood transfusion stations in order to combat growth in underground trafficking in donor blood that was putting local supplies at risk for HIV (Powell, 2000). Fewer than 50 infections contracted through donated blood were reported in the entire post-Soviet region during the 1990s, largely due to universal screening of donated blood and blood products (Dehne et al., 2000; Savchenko, 1999). Russian screening procedures have improved markedly over those of the Soviet era, when because of the expense and scarcity of diagnostic kits, blood from 10–15 different prospective donors was often pooled before testing (Powell, 2000). Since then, sensible and careful precaution has become the norm.

A Generalized Epidemic?

As of mid-2006, there is still no absolutely clear indication of a massive spread of HIV/AIDS into the general population. HIV infection is, however, starting to spread more intensively by heterosexual contacts, especially via bridge population groups (figure 1.8). These can include sexual partners of drug users, females having sex with MSM, and

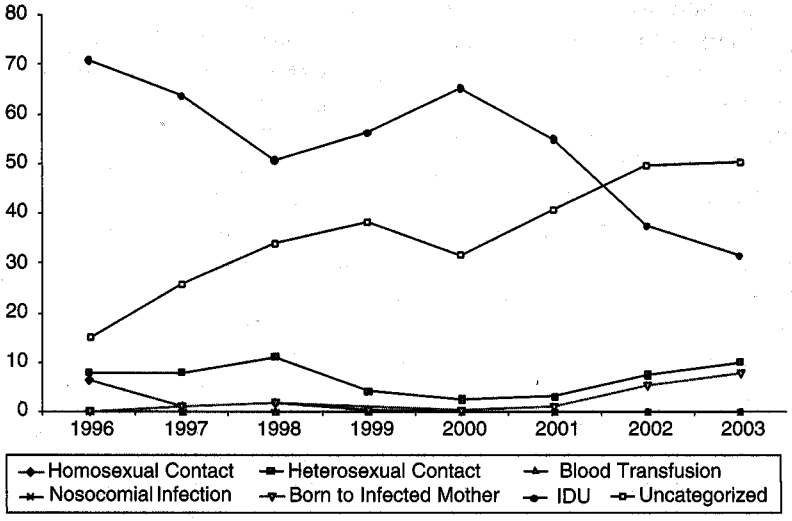

Figure 1.8 Transmission Routes for New HIV Cases, 1996–2003, as Percentage of All New Cases

clients of sex workers (Lowndes et al., 2003; UNDP, 2004). Four behavioral and epidemiological factors will largely determine the extent to which HIV spreads outward from the high-risk IDU population through bridge groups to the general population: (1) HIV incidence and prevalence among IDUs; (2) the extent and patterns of sexual contact between IDUs and non-IDUs; (3) risk behavior in these sexual contacts; and (4) STI type and prevalence in the IDU and non-IDU populations (Grassly et al., 2003; Karapetyan et al., 2002; Kelly et al., 2001; Lowndes et al., 2003).

In 2000, only three percent of newly registered HIV cases with a known route of infection were due to heterosexual transmission. In 2004, the share of such cases increased to 25 percent. Throughout the 1990s, heterosexual transmission accounted for at most ten percent of new HIV cases. In 2000, the Russian Federal AIDS Center began noting a marked increase in the incidence of HIV acquired through heterosexual contacts, possibly indicating the spread of HIV beyond the primary partners of drug users and therefore the risk of a major heterosexual epidemic. Studies performed as early as the mid-1990s demonstrated the emergence of HIV subtype A, a strain previously found mainly in IDUs, among heterosexuals with no history of drug use (Dehne et al., 2000).

In addition, the number of HIV cases detected among pregnant women was 443 times greater in 2001 than in 1995 (Ladnaia et al., 2002). Sexual HIV transmission has resulted in a significant change in the gender proportions among PLWHA. In 2001 only 20 percent of HIV cases were recorded among women, but in 2004 this figure reached 38 percent and in some areas exceeded 50 percent ("On Additional Measures," 2005). Declines in the male-to-female sex ratio for HIV incidence have been interpreted as a sign that heterosexual transmission is becoming more important, since between 65 percent and 95 percent of IDUs in Russia are reported to be male (Dehne et al., 2000). However, the change in sex ratio could also reflect an increase in IDU-associated transmission among women. HIV prevalence among pregnant women in Russia by the end of 2004 reached 0.3 percent on average, with up to 0.8 percent in the most affected regions. There is also a growing number of babies born to HIV-positive mothers. According to several reports (TPAA, 2004), by the end of 2004 the number of these children was around 12–14,000, of whom 15–20 percent were HIV-positive and ten percent were abandoned by parents to governmental care.

The high potential for further epidemic spread is confirmed by numerous sociological studies that demonstrate insufficient public awareness of the HIV/AIDS issue and widespread risky behavior among both the general population (Sokolov et al., 2001; Sultanov, Dem'yanenko, and Maksimova, 2003; Vannappagari and Ryder, 2002) and vulnerable groups (Kelly et al., 2002; Rhodes et al., 2004). For example, a recent study of 100 female IDUs in St. Petersburg revealed that 37 percent had a history of sex trading, and a significant percentage (44 percent) had recently shared injection equipment with others (Benotsch et al., 2004). Furthermore, most of the women surveyed perceived themselves to be at low risk for contracting HIV. Other studies have uncovered substantial knowledge deficits among Russian patients seeking STI diagnosis and treatment, revealing that riskier behaviors are associated with a low knowledge base among Russian men having sex with men and commercial sex workers (Benotsch et al., 2004). Most Russians in this survey also perceived themselves to be at low risk for contracting HIV. Other studies have reinforced the notion that knowledge about HIV/AIDS in Russia is generally poor and that lower levels of accurate knowledge are associated with riskier behaviors among many at-risk population subgroups, including adolescents and young adults (Pinkerton et al., 2003).

In recent years, a debate has emerged over the sufficiency of available case-reporting data to demonstrate the spread of the epidemic significantly beyond primary risk groups. Russia's HIV surveillance system is based on systematic testing of large population groups, often missing infections in smaller, high-risk groups where they are most likely to occur. Furthermore, the system reports the names of those who test positive to a central registry, which likely inhibits voluntary counseling and testing, given the high level of stigmatization of HIV/AIDS, homophobia, prejudice against drug users, and the limited availability of HIV treatment (Kalichman et al., 2000). This flawed surveillance system is the main reason that official data on incidence and prevalence are widely acknowledged to be understated by a significant factor.

Official data on HIV transmission routes are also frequently missing, with the gaps reaching as high as 40 percent of cases in some recent years. These holes in the data make it difficult to interpret and track movements involving small numbers, such as the possible beginning of a trend toward heterosexual transmission into the general population. Government statistics may also overstate the extent of IDU-driven transmission, since all individuals with a history of drug use are recorded as having acquired HIV through the parenteral route even if other modes of transmission may have been involved (Lowndes et al., 2003).

The HIV surveillance system is also expensive and inefficient, producing little public health benefit and diverting resources from preventive efforts that could have greater impact. Between 1987 and 1992, over $15 million was spent on more than 24 million tests that produced only 85 positive results, while only $3 million was spent in the same five-year period on HIV prevention and education (Danziger, 1996). Since 1999, sentinel surveillance of HIV infection at sites or in groups with high-risk behaviors—the international standard that is more cost-effective in tracking trends—has been slowly adopted in some parts of the country, in particular among IDUs, prisoners, and STI patients. However, it is not yet part of the federal HIV/AIDS guidelines, and systematic surveillance of behaviors in the population has not been adopted (Grund, 2002; Pisani et al., 2003; WHO Regional Office for Europe, 2001).

The role of alcohol consumption has thus far been neglected in discussion of Russia's HIV epidemic, a curious fact in a country where alcohol abuse has already been directly related to the two leading causes of premature mortality (cardiovascular disease and accidents). A 2005 study of HIV-infected patients at the Botkin Infectious Disease Hospital in St. Petersburg showed that lifetime diagnoses of alcohol abuse or dependence were present in nearly half of these cases, and

these diagnoses were associated with significantly higher sex-risk behaviors and slightly higher drug-risk behaviors. Clearly there is a need for further study of the relationship between alcohol dependence/abuse and HIV transmission, and for HIV-risk reduction interventions among alcohol-abusing populations (Krupitsky et al., 2005).

HIV/AIDS Care and Treatment

Estimates of the number of people in Russia in need of ARV treatment vary. According to data from the HIV/AIDS Prevention Department of the Russian Federal Service for Surveillance of Consumer Rights Protection and Human Welfare, no more than 20,000 PLWHA had medical indications for highly active antiretroviral therapy (HAART) as of May 2005. But a number of national and international experts believe that already more than 50,000 Russians need ARV treatment. Currently approximately 3,000 patients receive such treatment, representing only 4–15 percent of the infected people in need of therapy.

Free access for PLWHA to ARV treatment is not just a medical issue but also a human rights concern. Even from a narrow medical perspective, however, ARV treatment offers cascading positive impacts on the control of HIV/AIDS epidemics. The possibility of free access to treatment increases the motivation of people at risk to be tested for HIV, enabling medical institutions to provide HIV prevention, counseling, and behavioral interventions to vulnerable population groups. In addition, ARV drugs significantly decrease the concentration of the virus in the blood and other bodily fluids, thereby reducing the possibility of transmission to other people. ARV treatment during pregnancy and labor significantly reduces the risk of transmitting HIV from mother to child, leading in most cases to the birth of healthy babies.

In general, the majority of HIV-infected Russians are young people with low incomes, in most cases with the 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. In addition, a prejudiced attitude still prevails toward issues connected with HIV/AIDS in Russia. This stigma is mostly due to lack of knowledge about HIV/AIDS, resulting in unfounded fear of the disease. As a result, very often HIV-infected people find themselves isolated and pushed to the margins of society. Many experts are worried that negative attitudes toward people living

with HIV/AIDS, sometimes evident even among medical personnel, may lead to discrimination when it comes to accessing lifesaving treatment. This concern is especially pronounced for those patients who became infected through drug usage and who represent the majority of PLWHA in Russia. A 2002 study of 470 persons with HIV/AIDS in St. Petersburg, for example, found that a large percentage had encountered discrimination in some form: 48 percent had been forced to sign documents acknowledging their HIV status, 30 percent had been denied general health care, ten percent had been fired from their jobs, and nine percent had been evicted from their family homes (Amirkhanian, Kelly, and McAuliffe, 2003). Another clear obstacle to the expansion of ARV therapy in Russia is the legal restriction on the use of substitution therapy that reduces the intake of illegal opioids and normalizes the life of drug-dependent patients, retaining them within treatment programs (WHO/UNDOC/ UNAIDS, 2004).

The high price of antiretroviral drugs has become a key rallying point for activists and health organizations, as well as a central obstacle to universal treatment. The federal law on the monetization of social benefits, which went into effect on January 1, 2005, compounded the problem by requiring that regional budgets provide the funding for these drugs. The situation in Chelyabinsk is illustrative: the director of its regional AIDS center requested 30 million rubles ($1 million) for ARV drugs from the 2005 regional budget but received only six million rubles. As a result, only 40 of the 159 people requiring immediate treatment in the region are receiving it (Boykewich, 2005).

If current projections hold, as many as 300,000 people will require treatment by 2010. In a production environment where international pharmaceutical companies like GlaxoSmithKline and Roche produce nearly all of the ARVs available in Russia, and where Russia has not yet negotiated with these companies for the deep price reductions achieved by many other countries, Russia's user prices for the drugs are comparable to those in the United States and Western Europe—as much as $4,000–$10,000 per person per year. Domestic production, which has met with great success in India and Brazil, is not on the horizon, and currently Russia produces only one antiretroviral drug recognized by WHO (AZT and Phosphazid, an AZT-like drug) (Silversides, 2004). Some additional demand will be met by the Global Fund's $209 million infusion of resources over a five-year period, largely aimed at providing ARVs to those currently deprived of them. As a condition of receiving the Global Fund money, the Russian government concluded an agreement with the manufacturers to bring the

price levels down initially to $1,700, and eventually to $600 by the end of the five-year period. Within the framework of the Global Fund project, Russia has already bought and delivered to four regions ARV drugs at a price of $1,461 per cheapest regimen per year ($2,000 on average for the four regimens). It is expected that the Russia government will negotiate similar discounts for 2006. But Global Fund money will still cover only part of total demand, particularly as the large numbers of people who contracted HIV in the mid- and late 1990s progress to the latter stages of the disease.

Institutional Capacity to Address the Epidemic

The Russian government's response and capacity for coping with HIV/AIDS remains shaped by the Soviet legacy. The Soviet Union enjoyed a health care system with many features worth boasting about: universal access even in remote rural areas, a wide array of services provided free of charge, and significant advances in infectious and other disease prevention through compulsory vaccination and annual dispensarization programs. Beneath the surface, however, Soviet health services suffered from chronic underfunding and inefficient mechanisms for spending those resources that were made available. As a result, the Soviet population's universal access was to a markedly uneven quality even of basic services, and levels of secondary and tertiary care well below Western standards.

When the first cases of HIV infection emerged in the late 1980s, the Soviet government responded institutionally in a manner consistent with existing practice and with the fear, stigmatization, and tendency to try to isolate those with the disease that has characterized the response of so many countries globally. The Soviet Ministry of Health created a separate centralized system of AIDS centers and laboratories. It instituted a system of mandatory testing for a number of groups deemed to be at risk. As a result of these institutional choices, the Soviet health system was able to prevent, even in the early stages of the country's experience with HIV/AIDS, outbreaks due to infected blood donors and nosocomial infections (with the exception of the previously noted tragic outbreaks in Soviet pediatric facilities in the 1980s). But because of these decisions, HIV prevention and treatment was not integrated into primary health care, with the result that health care providers remained untrained and uninformed about the disease, and the health system's ability to

reach general population groups with prevention and treatment was undermined.

As a newly democratic but chaotic Russia emerged in the early 1990s, the financing available for medical care plummeted both in absolute terms and as a percentage of state budgets and of GNP. The institution of nationwide state-sponsored medical insurance, with premiums paid by employers on behalf of their workers, lessened the fiscal blow somewhat by providing a protected stream of health care revenues. Hospitals and clinics nonetheless found themselves surviving on a shoestring, with meager and uncertain government budgets continuing to provide more than half of their resources. It became routine in the early and mid-1990s for hospitals to require patients to provide their own food, linens, bandages, and even essential medications. Physicians, nurses, and even orderlies began to demand sometimes substantial under-the-table payments for their attention and services. Legal provider reimbursement mechanisms became confusing and multichanneled, leaving physicians and health care institutions without a predictable environment within which to work and plan. Complicating matters even further was the devolution of authority and responsibility for social services to the regional level in 1993. As a result, and despite President Putin's recent attempts to recentralize some elements of health administration, Russia currently operates under 89 different systems of health care corresponding to its 89 geographic regions. Over the past several years, President Putin has placed in motion legislative and other initiatives designed to correct the health care system's perverse incentives and return some degree of order to the system at the federal level. These efforts include attempts to bring all 89 regions' organizational, legal, and financial infrastructures for health into concordance with federal law, to improve and specify more comprehensively the financial flows and incentives inherent in the compulsory medical insurance system, and to construct a precise definition and set of funding requirements for the products and services that must be offered free of charge to all Russian citizens. Progress has been sluggish, however, primarily because health and health care have remained relatively low priorities on the national agenda.

All of these problems will most likely be exacerbated by the recent legislation that monetizes social benefits, including health care, pharmaceuticals, and medical equipment, that were formerly provided free or at heavily subsidized rates to a large number of population subgroups (including pensioners, students, and veterans). Health care consumers fear that the ruble payments they will receive in lieu of

in-kind goods and services will not cover their real costs, and providers are already increasing prices in anticipation of lower budget allocations now that the new system is in place. At the time of this writing, due to the street protests and other controversy surrounding the new benefits scheme (and the government altering its version of the new rules as a result), it is uncertain what the exact parameters and hence the concrete impact of the new arrangements will be.

Administratively, the Russian health care system is highly stratified, a legacy of the Soviet period, with patients directed to secondary and tertiary care according to their geographic location and with no thought of freedom of choice. Highly specialized medical facilities cover very specific research and patient care categories, with very little horizontal integration bringing together even closely related subfields. On the contrary, the norm has been that health institutions in related specialties compete for political favor and therefore scarce budget resources, precluding cooperation that might be expected and fostered in a different environment.

Russia's system of HIV/AIDS surveillance and care emerged logically from this Soviet and then Russian context. The network of federal and regional AIDS centers is isolated budgetarily and institutionally from the health care system as a whole. These centers are funded by earmarked programs in the federal, regional, and municipal budgets, and they bear sole responsibility for HIV testing and health care for people living with HIV and AIDS. For many years these centers suffered from universal underfunding, and from an inappropriate allocation of those scarce resources to mass screening of the population for HIV rather than to targeted surveillance of risk groups or to education, prevention, and treatment. More recently this imbalance has shifted in some regions toward the provision of antiretroviral medications, and some centers report that local governments have become more responsive to budgetary needs. Moreover, many of the AIDS centers have reaped the benefits of partnerships sponsored by bilateral and nongovernmental donors.

Fundamental structural and systemic flaws remain, however, due to the separation of HIV care from the Russian health care system writ large. First and most immediately, the requirement that patients receive medical care only from the AIDS centers—although they are legally entitled to receive care not directly related to an infectious disease from any health care provider, some physicians outside the AIDS centers will not treat them knowing their HIV status, and many do so only reluctantly—means that many PLWHA avoid seeking care at all,

as they do not want to be publicly branded as HIV-positive. Were more physicians outside the AIDS centers properly trained in infectious disease care in general, and HIV care in particular, these patients could be efficiently and compassionately treated. Institutionally, there is insufficient dialogue and cross-referral between the AIDS centers and other health care institutions.

Second, in the absence of national coordination between the AIDS centers and the broader health care infrastructure, there are no standardized approaches, national treatment protocols, or clinical practice guidelines to direct treatment for PLWHA, which could prove extremely problematic as ARV provision is scaled up, particularly if drug supplies are unreliable. Access to care is based on geographic and other idiosyncracies, and important co-infections (hepatitis, tuberculosis) go undiagnosed and untreated or improperly treated. Social services for PLWHA are absent or uncoordinated. In this highly segmented institutional environment, an integrated public health approach to the epidemic is impossible.

At least some of the regional AIDS centers are receiving significant funding from local and regional governments in the hope that this seed money will attract further and substantial monetary support from AIDS-attentive international donors. The danger here clearly is that the international community will respond in precisely the expected fashion, supporting Russia's isolated HIV/AIDS infrastructure but leaving in the lurch the vast majority of the country's rapidly decaying health infrastructure. Russia is a case that demonstrates the validity of a lesson learned many times over elsewhere in the global fight against AIDS: medical support and services for PLWHA must be integrated with a country's entire health services delivery network. In Russia, this would encourage HIV/AIDS caregivers to take advantage of a preexisting, albeit decaying, network of hospitals, laboratories, and clinics, and a highly trained and trainable health care workforce—a significant advantage that Russia enjoys over many other parts of the world affected by the virus. Conversely, it would also permit international resource flows for HIV in Russia to redound to the benefit not only of infectious disease care more broadly but also of capacity building in the health care industry as a whole.

Related Infections

HIV/AIDS is not the only disease that poses a threat to Russia. Following the breakup of the Soviet Union, Russia experienced a sharp increase in rates of non-HIV sexually transmitted infections.

Syphilis rates rose from 4.2 to 144.1 per 100,000 population from 1987 to 2002 (see figure 1.9), down from a peak of 277.6 in 1997. There have been similar increases in gonorrhea, chlamydia, and trichomonas. The recent stabilization in reported cases of syphilis may be due to underreporting, as those seeking treatment increasingly consult the unregulated, illegal private sector rather than state clinics (Dehne, 1999; Hamers and Downs, 2003; Riedner, Dehne, and Gromyko, 2000). Underreporting of STIs is the case in virtually every country, given the social stigma attendant with these diseases. In Russia, however, even with issues of data quality, there is evidence to suggest that the decline in STI incidence is real. There are reports of private STI clinics shutting their doors due to a decline in the number of patients; similarly, a rapid decline in syphilis among pregnant women, a population that is 100 percent screened, provides a good indication of the situation within the general population.

Regardless of the number of unreported cases, the present official incidence of STI in Russia is still more than ten times higher than in the EU or in the former Soviet Union. The STI epidemics are roughly equally distributed between males and females, and they affect all sexually active age groups and socioeconomic strata (Dehne et al., 2000). The rise in STI incidence has occurred disproportionately among young people, with syphilis rates among 15- to 17-year-old girls increasing 120-fold between 1985 and 1997 (Feshbach, 2003). This disproportionate rise points to a change in sexual risk behavior among young people and also creates a backdrop of untreated STI that could

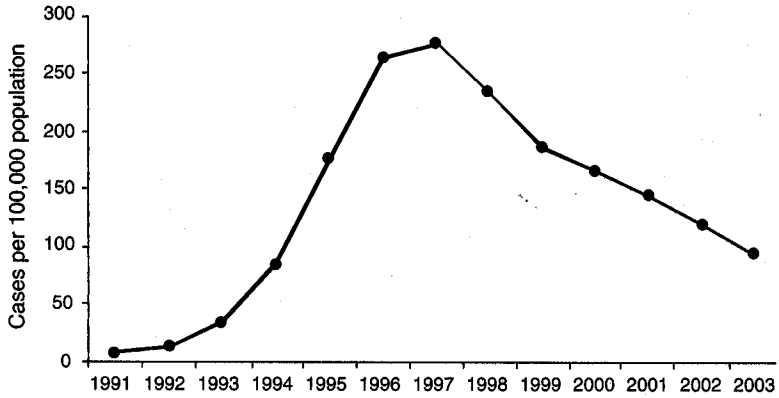

Figure 1.9 Syphilis Incidence in Russia per 100,000 Population, 1991–2003

Source: Data from the World Health Organization "Health for All" database.

both enhance HIV transmission and increase susceptibility to HIV infection (Kelly et al., 2001; Lowndes et al., 2003). Several published reports have indicated higher syphilis rates among IDU than in the general population. Others have found syphilis prevalence rates as high as 34 percent among CSW in Moscow, while over 20 percent of CSW in other Russian cities reported having had an STI episode in the past year (Lowndes et al., 2003).

The past decade's rise in drug use has also resulted in increased transmission of both hepatitis B and hepatitis C (figure 1.10), which currently represent the most common co-infections seen among Russian people living with HIV/AIDS (Beutels et al., 2003). The decrease in the incidence of hepatitis B since 1999, on the one hand, may be attributed to the effect of epidemiologic saturation among drug users; on the other hand, it may be the result of wider coverage by specific vaccination.

A steady decline in the incidence of tuberculosis, observed in Russia since World War II, reversed at the beginning of the 1990s. During the past ten years, tuberculosis incidence and mortality rates have doubled (figure 1.11). This trend has stabilized and even decreased in recent years, but the Russian Federation still has the highest tuberculosis mortality in Europe and is among the 22 countries of the world most affected with TB. Of special importance is the rapid spread of forms of the disease resistant to conventional drugs, which now make up 9–10 percent of all tuberculosis cases and up to 20 percent of cases diagnosed in prisons. Because of this emerging multidrug resistance, tuberculosis

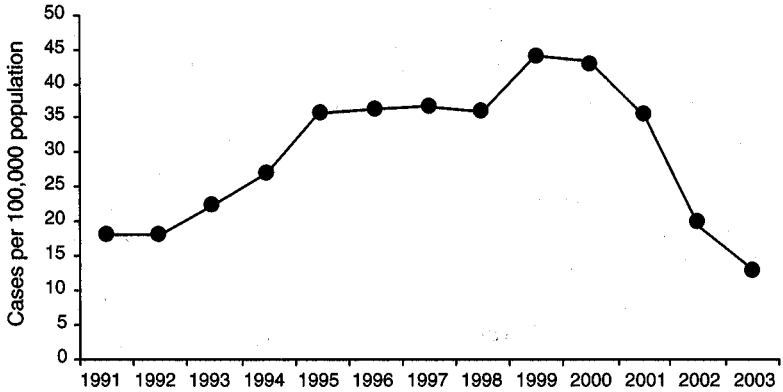

Figure 1.10 Hepatitis B Incidence in Russia per 100,000 Population, 1991–2003

Source: Data from the World Health Organization "Health for All" database.

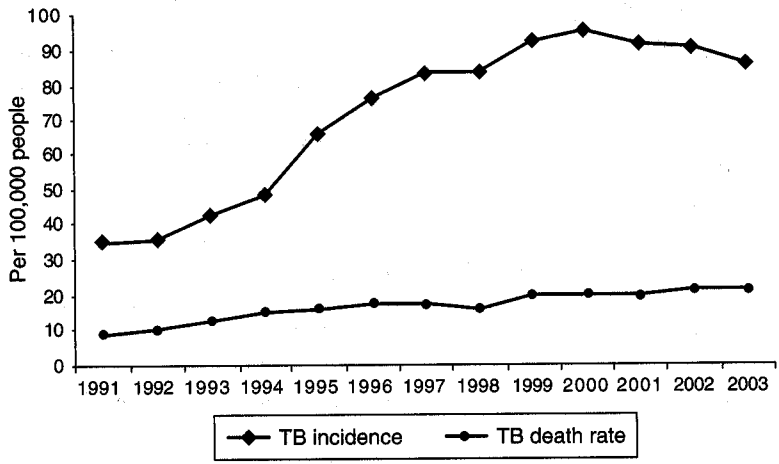

Figure 1.11 Tuberculosis Incidence and Death Rates in Russia per 100,000 Population, 1991–2003

Source: Data from the World Health Organization "Health for All" database.

is now transforming from a definitely curable infection into a chronic illness requiring expensive treatment and frequently producing fatal outcomes (Ruddy et al., 2005).

Tuberculosis is the main cause of death from infectious disease in Russia. Like HIV/AIDS, it affects people, mostly males, in the prime of their working age. Globally, tuberculosis is the major cause of death among PLWHA. Until recently, the HIV and TB epidemics developed in Russia more or less separately; since 2003, however, there has been a considerable increase in the number of HIV and tuberculosis co-infections. According to the Federal Center for Anti-Tuberculosis Care for Patients with HIV-Infection, by the end of 2004 the number of patients with comorbid TB/HIV exceeded 7,600. A 2002–2003 study of patients co-infected with HIV and TB in St. Petersburg showed that, although the HIV seroprevalence rate was rising among TB patients, HIV was not yet driving the city's TB epidemic. This finding provides hope that collaborative HIV and TB control efforts might mitigate the adverse effects of HIV on the TB epidemic (Van Rie et al., 2005).

Socioeconomic Drivers of the Epidemic

A wide variety of socioeconomic factors have contributed to Russia's HIV epidemic. Throughout the 1990s, Russia and the other post-Soviet states experienced a prolonged economic crisis with severe

social consequences that is without historical parallel. The rapidity and severity of the changes wrought by the transformation left most Russians with few adjustment strategies (Twigg, 2002). For some, family and community ties have served as coping mechanisms. Others, particularly those in the younger generations, have developed the capacity to survive or even thrive under the new economic and social rules. But many people remain alienated and fatalistic. Poverty and social disaffection have affected vulnerable groups particularly severely: women, families with children, unmarried mothers, pensioners, the unemployed, and the disabled.

Russia and the other former Soviet states may represent a unique situation, where socioeconomic collapse and the deterioration of the health care system have occurred simultaneously with changes in social norms and moral values among many population groups (Atlani et al., 2000). For many people, engaging in risk behaviors such as injection drug use has been an "escape" from the pressures of family disruption or socioeconomic instability and chaos. For others, a complicated psychological pattern has emerged in which society's ideological shift—from collectivism to individualism and consumerism—has resulted in a marked collateral propensity for individual risk-taking (MAP, 1998).

Some social and political factors resulting from the post-Soviet transition have created a supportive context for preventing and treating HIV and AIDS. For example, there is now greater access to information on virtually all topics, including HIV and AIDS. The evolution of a community of nongovernmental organizations (NGOs) has both benefited from and contributed to this increase in information. And there is undeniably a movement toward greater tolerance for a variety of lifestyles and sexual orientations (Sperling, 2000).

Other socioeconomic factors that may have heightened the risk of HIV infection among certain population groups include a growth in the number of street children at risk of sexual exploitation and drug use (Kulianov, 2003); a drop in the age of onset of sexual activity (Chervyakov and Kon, 1998; Russia Longitudinal Monitoring Survey results, 2001); a deterioration in the status of women coupled with high incidence of rape and domestic violence (Sperling, 2000); a rise in prostitution for economic survival (Rhodes et al., 1999; Twigg, 2000); heightened internal migration, driven by economic factors, that separates workers from their families; changes in sexual attitudes and behaviors fed by access to Western media, which has not been accompanied by provision of reliable information about sexuality,

contraception, and STI prevention (Atlani et al., 2000; MAP, 1998); greater tolerance of men having sex with men, leading to more public discussion and display of practices and lifestyles (Kon, 1995, 2000); and increased accessibility and affordability of injection drugs (Kramer, 2003).

Government Response and Commitment

During the Soviet period, there was no overarching national program to coordinate activity related to HIV/AIDS. In 1993, the Russian government developed the "Federal Program for the Prevention of the Spread of AIDS in the Russian Federation from 1993–1995." This program was intended to introduce a system of HIV/AIDS prevention; improvement in the capacity to diagnose, treat, and follow up HIV/AIDS patients; a system of social support and legal protection for HIV-infected persons; improvement in epidemiological surveillance for HIV and AIDS; an increase in the scientific resources devoted to HIV/AIDS; and dissemination of AIDS information and educational materials both to the general public and to medical personnel (Williams, 1995). In practice, the program was overwhelmingly oriented toward a medical approach that stressed epidemiology and the biomedical sciences over prevention, education, social services, and legal support. The 1993 budget program was renewed in 1996 (the second Federal Program), and again in 2002 (the third Federal Program, adopted for 2002–2007). These pieces of legislation have provided for the extensive vertically organized system of about 100 federal, regional, and local AIDS centers, all run under the auspices of the Ministry of Health.

In August 1995, the Russian legislature passed the Federal Anti-AIDS law, which stipulated the still-current federal guidelines for HIV/AIDS prevention, care, and support. It brought almost all activity relating to HIV/AIDS under the authority and supervision of the federal government. This legislation mandates government-provided public information about the status of the HIV epidemic, the production and availability of prevention and treatment resources, and the availability of HIV testing, including anonymous testing accompanied by pre- and post-test counseling. All government assistance to HIV-infected persons, including medical care and social support for them and their families, is guaranteed by the law to be free of charge. The law also protects the human rights of people living with HIV and AIDS (Savchenko, 1999). The law, however, set no spending or programmatic priorities.

Most experts believe that the provisions of this law do not contradict international legal requirements and do conform to recommendations developed at the intergovernmental level. Practical application of the law in Russia, however, has encountered serious problems. A number of regions, violating the law, have expanded significantly the list of persons who are subject to compulsory HIV testing. As mentioned earlier, people living with HIV/AIDS also very often have great difficulty exercising their right to the free medical care guaranteed by federal law. Most often this is due to insufficient financing from federal or regional budgets, but quite frequently it is also caused by discrimination against patients whom medical personnel judge to be undeserving or unfit for ARV treatment because of drug addiction or other forms of "socially unacceptable" behavior.

The 1998 Federal Law on Narcotic and Psychoactive Substances, which was an attempt to bring the IDU problem under control, stated that all drug consumption outside that prescribed by physicians was illegal. It prohibits substitution therapy for opiate addiction, and its provisions could easily be interpreted as defining needle or syringe exchange programs as illegal abettors of drug use. The law defined as punishable by incarceration the possession of even miniscule amounts of heroin and some other drugs, leaving many IDUs fearful of carrying used injection equipment that might contain even traces of drug solution. Needle exchange operations in Yaroslavl and St. Petersburg reported increased police harassment soon after President Yeltsin signed the legislation (Grund, 2002). This phenomenon has been exacerbated by the occasional location of fixed-site exchange points within local narcology clinics; there is virtually always a police presence at these clinics, since police routinely refer suspected drug users there for testing or registration (Rhodes et al., 2003). In addition, under the 1998 law, private clinics were banned from treating drug users who agreed to receive treatment rather than face incarceration; only health organizations licensed by the state can provide drug treatment and counseling services (Sergeyev et al., 1999). After the law's passage, some physicians hesitated to teach addicts how to take drugs safely for fear of prosecution, although others have reported that this did not present a legal challenge to their work (Clarke, 1999; Mariner, 2001). In essence, at least in some cases, the law severely restricted the ability of health professionals to provide medical care to drug users.

The situation changed radically in 2004 when two important amendments were introduced into Russian legislation. The first

change concerns the concept of "average minimum doses," which linked the severity of an offender's punishment to the amount of drugs found by law enforcement officers. Prior to this recent amendment, there was an indicative table that enabled courts to impose a prison sentence for even the tiniest traces of heroin in a used syringe found in the pocket of an IDU. As little as 0.0001 grams of heroin was considered to be a large quantity, and possession of 0.001 grams was defined as an offense that could lead to ten years in jail. Since the change in 2004, however, the quantity of illegal drugs has been expressed in a number of "average minimum doses," comparable to what is generally used by a drug-dependent person, with the amounts based on realistic assessments by qualified specialists. The severity of the punishment now depends on the number of these doses found, drastically reducing the potential for police and courts to manipulate offenders' sentences. Most importantly, the change has created some formal criteria for separating drug users from drug dealers, with a person found to be carrying one or a few "doses" subject only to administrative penalties, while criminal penalties are reserved for those who clearly intend to sell much larger quantities.

The second 2004 amendment clarified that the provision of syringes and information on safe injection practices to IDUs for the purpose of preventing HIV is no longer considered propaganda furthering the spread of illegal drug use. This change in the law has significantly reduced the legal vulnerability of harm reduction sites, although solid mechanisms for implementation of this new legal standard have not yet been developed.

Another important element of the government's response to the epidemic is the amount of money allocated to combat it. Government spending on HIV/AIDS flows through many uncoordinated channels. There is no mechanism, individual, or institution inside or outside the government at any level that has assumed or been assigned responsibility to collect and collate HIV/AIDS-related spending data, let alone coordinate the allocation and distribution of resources across institutions. Still, a few observations are possible.

The original budget for the first Federal Program developed in 1993 was 12.42 billion rubles, or $20.35 million, for 1993–1995. Over these three years, the program was actually funded at only 42 percent of its authorized budget levels (Savchenko, 1999). The third Federal Program promised $252 million over six years (2002–2007), roughly six times that allocated for 1996–2000, but less than one-tenth of the annual average of roughly $40 million per year was actually allocated during the program's first three years.

Of the 2003 budget, about 60 percent was allocated to medications for treatment, 25 percent to testing, and the remainder to laboratory equipment, prevention, education, and other activities. The MOH has been widely criticized for spending the bulk of its resources on treatment and testing rather than prevention.

The MOH budget also contains funding outside the formal Federal Anti-AIDS Program for the Federal AIDS Hospital in St. Petersburg, to pay for staff salaries, communal services, and some additional drugs. In some budget years, the MOH has also allocated resources to purchase test kits. Additional significant spending is in other federal ministry budgets, particularly for scientific research, and in regional and local government budgets. Many regional agencies have specific HIV-related programs or line items, and in some cases local AIDS centers are funded in part from regional health budgets. In total, over the past several years, about 500 million rubles ($23 million) per year has been spent on HIV/AIDS at the regional or local level, and 250 million ($12 million) more at the federal level (for the Federal Anti-AIDS Program, other health ministry spending, and non-MOH federal spending), meaning that about 750 million rubles ($35 million, or 24 cents per capita) at all levels per year has been devoted to HIV/AIDS at a time when high world oil prices have given the Russian treasury a reserve worth billions of dollars. There is also no formal mechanism to assess the degree to which spending corresponds to programmatic priorities. In addition, during the past two to three years there has been a clear tendency to transfer responsibility for HIV/AIDS to regional budgets, even though only a few prosperous regions can afford these costs. The majority of territories do not have the necessary resources, particularly to buy ARV drugs for the rapidly growing number of people living with HIV/AIDS.

Until very recently, the highest levels of the Russian government have remained virtually silent about HIV/AIDS. For several years, a relatively small number of officials from the Russian HIV/AIDS community and the health ministry have criticized the government for failing to act to slow the rise of new HIV infections in the country. President Putin, who has been widely criticized by the Russian and international AIDS communities for his years of silence and inaction, first mentioned the epidemic in public only in the spring of 2003, when it received a passing mention in his annual address to the Parliament:

> During the last several years the mortality of the population has been increasing. It has grown ten percent during the last three years. At the

> same time life expectancy has been decreasing. Sad statistics—from 67 years in 1999, to 64 in 2002. Among the reasons: the high level of diseases, and mortality from accidents, poisonings, and trauma. The situation has been aggravated by the spread of the so-called "new" epidemics, including drug abuse and AIDS. (State of the Nation address, May 16, 2003)

More recently, the issue has achieved higher status on Putin's agenda, as already mentioned; in a three-hour news conference held in September 2005, he finally addressed HIV/AIDS publicly as a major concern and a "crisis," and pledged to multiply twentyfold in 2006 the amount of money the federal government was devoting to the problem. He very deliberately, however, refused to refer to HIV as an epidemic, hinting that he sides with those analysts who believe that Russia's domestic HIV problem is receding and relatively well under control.

Throughout the late 1990s and early years of this decade, Russia faced so many other problems that appeared to be more urgent—economic reform, the civil war in Chechnya, infrastructural decay—that HIV was not perceived as an immediate threat to the general public. The government may also have hesitated to identify as a top priority a problem for which the solution will most certainly prove to be expensive and intractable. Furthermore, discussions of HIV/AIDS force top government officials to become vocal about issues—drug use, prostitution, homosexuality—that many Russians still consider culturally improper topics for public discussion.

Putin and his predecessors have been willing, however, to support the international battle against AIDS. Cooperation in health care, with a focus on AIDS and TB, was consistently on the agenda of the Russian-U.S. Commission on Economic and Technical Cooperation, also called the Gore-Chernomyrdin Commission, during the Clinton and Yeltsin administrations of the mid- and late 1990s. In May 2001, Putin sent a letter to U.S. President George W. Bush expressing support for international efforts to combat AIDS and other infectious diseases, a position that was confirmed in the two presidents' joint statement following their May 2002 summit. Putin's 2001 letter also called for the consolidation of international efforts to fight and find a cure for AIDS through the United Nations and the G8 group of advanced industrialized countries. In July 2001, Putin signed off on Russia's support for the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), pledging $20 million. Many Russian commentators found irony in this

commitment to international efforts when the domestic situation remained grave and resource-starved.

The Russian Federation officially supports the UNAIDS "Three Ones" strategy. At the moment, however, even if more resources become consistently available to tackle the problem, issues relating to government capacity and organizational structure remain intractable. The HIV/AIDS problem, for example, is currently within the primary area of responsibility of at least four different structures at the federal government level, including the Ministry of Health and Social Welfare (which still has only three staff members assigned to work on HIV/AIDS), the Federal Service for Surveillance in Consumer Rights Protection and Human Welfare, the Federal Service for Supervision of Health Care and Social Development Issues, and the Federal Agency for Health Care and Social Development. The presence of several different coordinating bodies (the Coordinating Council on HIV/AIDS of the Ministry of Health and Social Welfare, the National Coordinating Council on AIDS, and the Coordinating Council on the Prevention of Mother-to-Child Transmission of HIV, among others) demonstrates the lack of a common approach to effective control of the epidemic.

Private organizations (NGOs) and donor agencies have emerged to fill the gaps in government services. The majority of HIV/AIDS NGOs in Russia focus their activities on prevention among high-risk groups that traditional medical institutions find difficult to reach, and on protecting the human rights of PLWHA. Almost all NGOs consistently lack financial resources, since philanthropy has not yet become commonplace in Russian society. With every passing year, however, there is more effective partnership between NGOs, government organizations, and UN agencies, either through joint projects or through the NGOs' participation in work on the various coordinating councils. Other than routine licensing and registration requirements (e.g., a license to perform medical diagnostic testing in general), no specific HIV/AIDS license is required for NGOs to offer services and programs (Mariner, 1999). In general, however, NGOs face an operational atmosphere that is, at best, ambivalent. Russia historically has little experience with the nongovernmental sector, and in today's political climate, NGOs are frequently subject to harassment and attempts at control or co-optation by the government. NGO registration and regulation are extremely complicated, and in the health sector, many state health facilities view NGOs as competitors rather than partners (Grund, 2002).

A political alliance of pro-life organizations, the Communist Party (for most of the 1990s, the majority party in the legislature), and the

Russian Orthodox Church has effectively opposed much of what the government and NGOs have attempted in the areas of HIV education and prevention. While the Church has begun to sponsor its own HIV education programs for youth and programs for HIV/AIDS care, these are conducted according to its own religious and philosophical principles; the Church's political activity continues to pressure the government to reject international best practices in the areas of HIV education, prevention, and harm reduction. Currently the Church is positioning itself in two significant areas of HIV prevention and care: the promotion of its own moral values, particularly sexual abstinence and faithfulness to a spouse, and the delivery of palliative care and spiritual support for PLWHA.

Injection drug use, homosexuality and bisexuality, and HIV/AIDS themselves remain highly impersonalized and stigmatized to the vast majority of the public, making it difficult for HIV/AIDS programs to attract strong political support. Russia has not had a parallel experience, for example, to the United States, where relatively early in its epidemic a few highly popular public figures (Rock Hudson, Magic Johnson) revealed their HIV status, significantly changing public perceptions and attitudes toward HIV.

International Efforts

Since the late 1990s several international HIV/AIDS and tuberculosis control projects have been implemented in Russia with the financial support of various UN agencies, USAID, DFID (United Kingdom), CIDA (Canada), TACIS, the Open Society Institute, and other donors. In 2003, in the framework of a World Bank loan, a major five-year project for fighting tuberculosis (about $100 million) and AIDS ($50 million) was launched. In 2004, two programs were launched in Russia with the financial support of the Global Fund: a large-scale GLOBUS project aimed at HIV/AIDS prevention and treatment in ten regions of the Russian Federation (about $89 million for five years), and a regional TB control project in the Tomsk region (about $10 million for five years). The Global Fund financed another five-year project in 2005, this time aimed at implementation of treatment programs: $120 million for HIV/AIDS and $90 million for tuberculosis. These programs, however, do not cover all of Russia's needs and are limited in duration. When international projects have run their course, Russia will have to rely on its own resources to combat HIV/AIDS and tuberculosis. In other words, there is an urgent need to build up the country's potential and to

increase government allocations for the long-term implementation of sustainable public health measures, independent of donor activity.

Implications and Recommendations

The problem of HIV/AIDS, tuberculosis, and other infectious diseases goes far beyond the framework of the health system, with potentially adverse consequences for Russia's demographic situation and the development of its human resources, economy, and defense sector. As the birth rate, though rising, remains at a very low level, the anticipated increase in HIV/AIDS mortality and the possibility of an epidemic of HIV-associated tuberculosis could lead to rapidly increasing populations losses over the next decade. The primary cohort for these infections will be young people who will therefore not enter the workforce normally; the formation and composition of the labor force will change. The growing number of PLWHA in need of long-term care will divert resources from investment into productive sectors of the economy. The productivity of family members and others who are burdened with the care of HIV-infected loved ones will decrease. In the long run, the shape of the country's macroeconomy may suffer, with a resulting decline in global competitiveness (see chapter 4 of volume 1).

The Russian armed forces has already been confronted with a reduction in the size of the conscription pool and general deterioration in the health of draftees. The continued spread of HIV/AIDS will further compound these dilemmas, with a potentially significant impact on the national security of the country. One of Russia's top military medical officers, Major General Valery Kulikov, disclosed recently that the number of draftees rejected due to HIV infection has grown by 27 times over the past five years, for a total of 9,000 rejections. Kulikov further stated that this number was "only the tip of the iceberg," as draftees are not systematically screened for HIV (Boykewich, 2005; see also Feshbach and Galvin, 2005).

Even if effective prevention programs start today, the number of people with HIV and AIDS in Russia will inevitably grow. World Bank (Rühl, Pokrovsky and Vinogradov, 2002) and U.S. National Intelligence Council (Gordon, 2002) forecasts claim that by 2015, the number of HIV-infected Russians may reach 9.6 million, reducing male life expectancy by four years (in the absence of access to ARV therapy). Ten years from now, according to these estimates, the economic consequences of HIV/AIDS could cost Russia a decrease in GDP of seven percent. The majority of these pessimistic scenarios, however, were

constructed on the basis of the escalating HIV incidence trends of 1999–2001. The slowdown in the spread of the epidemic provides hope that the prognosticators' worst expectations will not be realized. In the near term, though, it is inescapable that HIV/AIDS-related mortality will contribute to Russia's already-high population loss. This negative demographic effect will be exacerbated by the fact that HIV primarily affects young people, leading to a possible subsequent decrease in the birth rate.

Everywhere, the spread of HIV is connected to forms of behavior that are difficult to study directly. In Russia, there are limited data even on the size of the major risk groups and the current prevalence of HIV and AIDS. Forecasts are therefore inevitably subject to limitations. The majority of scenarios and models must be based on a significant number of assumptions, reducing their degree of certainty (Grassly and Garnett, 2005). During the 1990s, for example, the rate and scope of the spread of HIV around the world considerably surpassed virtually all expert predictions made at the beginning of the decade.

Dr. Vadim Pokrovsky, head of Russia's Federal AIDS Center, predicts that the best-case scenario in Russia—assuming a large-scale expansion of prevention programs—will result in three million PLWHA in Russia in 2015. Pokrovsky's most pessimistic projection, based on an assumption of active heterosexual spread of the virus among the general population, doubles that figure to 5–6 million. Reliable forecasting of future HIV/AIDS mortality, which will depend largely on access to ARV treatment, is even more uncertain. Taking into account the timing of the start of Russia's HIV epidemic, coupled with the average post-diagnosis lifespan of an untreated HIV-infected person (12 years), and absent a large-scale expansion of access to ARVs, the mortality will become visible around 2008–2010, with 1–1.5 million lives lost by 2015. The majority of PLWHA will die of tuberculosis, which could aggravate the general epidemiological situation in the country and lead to even larger population losses.

The spread of HIV and its comorbidity with tuberculosis and sexually transmitted infections pose a threat to Russia's welfare and security, but timely and appropriate interventions could mitigate the adverse impact. The earlier that investments are made in appropriate and effective programs, the higher will be the potential for economic and social gains in terms of deaths prevented and healthy years of productive life saved. New financing may become and remain available, but the existing medical infrastructure does not correspond to today's epidemiological conditions. The public health measures most suited to

the current situation often present a major challenge to Russia's deep-rooted mentality and traditional financing mechanisms.

Based on this analysis, we make the following recommendations:

1. In the absence of top-level leadership, control of any HIV epidemic is limited and ineffective. Russia needs to capitalize on the current policy rhetoric and momentum with sustained recognition of the problem by the country's leadership at all levels, coupled with implementation of comprehensive policy and programmatic measures.
2. The administrative disconnects in dealing with HIV/AIDS must be overcome. A single governmental body or joint committee on HIV/AIDS, with real legitimacy and authority, should be authorized to develop, supervise, and coordinate the implementation of anti-HIV/AIDS programs at the federal, regional, and municipal levels.
3. The promised increase in financing of HIV/AIDS and tuberculosis control must materialize, so that prevention and treatment needs are fully met. International grants and credits cannot substitute for the Russian government's funding of epidemic control. (Indeed, the Russian government pledged at the G8 meeting in July 2006 that not only would it no longer apply for Global Fund grants, but it would reimburse by 2010 the $270 million it has already received. This will be a positive development only if the international largesse is matched by a follow-through on pledges of domestic funding.)
4. A comprehensive strategy to address HIV/AIDS (and Russia's broader health crises) should be integrated into the country's long-term economic programs and planning. Solid financial guarantees, including access to ARV therapy for each case in which it is medically indicated, should become a routine part of government policy.
5. Only improvements in epidemiological surveillance can enable better forecasting and decision-making in the fight against the epidemic. The routine registration of new HIV cases—currently the basis of epidemiological surveillance in the country—should be supplemented by second generation methods, including behavioral studies and regular monitoring among key at-risk population groups.
6. The health care system must learn how to provide a range of necessary services to the cohorts of patients exhibiting high-risk behaviors, whose numbers are expected to increase rapidly in the near future. Internationally-recognized standards of care and wider use of outpatient approaches should be adopted.
7. In order to promote tolerance and destigmatization of people living with HIV/AIDS, wide-scale awareness campaigns are needed. It is also necessary to target specific HIV/AIDS education and prevention messages at key risk groups; significant research suggests that these groups

will not trust government-produced sources of information and will instead benefit from peer education models that take advantage of pre-existing social networks where trust relationships already exist (Amirkhanian et al., 2005; Benotsch, Pinkerton, et al., 2004; Dolan, Bijl, and White, 2004; Goodwin et al., 2004).

8. Drug use has been and remains the major cause of HIV/AIDS spread in Russia. International experience has shown that prevention measures targeting IDUs, including needle exchange programs and access to treatment for drug dependency, can substantially decrease the spread of the virus. Along with supply reduction and demand reduction measures, Russia must therefore support harm reduction programs. The treatment and rehabilitation of drug-dependent persons must also be improved, to include access to substitution therapy.
9. Repressive strategies have never worked, in any location on the globe, in the fight against HIV. An appropriate legislative climate for the adoption and implementation of modern anti-epidemic programs requires a more positive approach. HIV control in Russia should develop with attention to international, evidence-based best practices, including a comprehensive package of medical, economic, and social measures, and due observance of human rights obligations.
10. A large-scale and sustainable program of HIV/AIDS treatment in Russia will require a considerable reduction in the prices for ARV drugs. Steps in this direction include negotiations with pharmaceutical companies, imports of generic drugs, and development of domestic production of ARV medications.
11. In Russia, as well as internationally, NGOs hold many advantages and much indispensable experience in the fight against HIV. The government must expand its support for and cooperation with the vibrant and expert Russian anti-HIV NGO community, including contracting with NGOs for the provision of treatment and prevention services.
12. People living with HIV and AIDS should be actively engaged and involved in the development and implementation of programs to fight the epidemic.
13. Russian businessmen and trade unions could be powerful allies against HIV/AIDS, but they are not yet sufficiently involved. Business leaders can support education and prevention programs among their employees, support broader public awareness and prevention campaigns, and actively and publicly denounce stigmatization of people living with the virus.

HIV/AIDS can evolve into a chronic irritant in Russia, rather than a major humanitarian, demographic, and economic disaster. But this is possible only through a sustained, comprehensive approach based on international best practices in prevention, treatment, care, and human

rights. To succeed, Russia will require meaningful reform of its health care system, coupled with a significant and sustained increase in financing of epidemic control programs and united efforts at capacity building by the government at all levels, the business community, NGOs, and people living with HIV/AIDS. It won't be easy. But the country's well-being and prosperity depend on it.

Note

Some parts of this chapter are based on Twigg and Skolnik, 2005.

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