In the Name of God

ISLAMIC REPUBLIC OF IRAN
COUNTRY REPORT

on Monitoring of the United Nations General Assembly Special Session on HIV and AIDS

National AIDS Committee Secretariat,
Ministry of Health and Medical Education,

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Islamic Republic of Iran Broadcasting

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Ministry of Education – Health Office

Ministry of Health and Medical Education – AIDS Control Office

Ministry of Health and Medical Education – Drug Abuse Prevention and Treatment Office

National Youth Organization

Non governmental Organizations active in the field of HIV and AIDS

Prisons Organization

Red Crescent Society of the Islamic Republic of Iran

State Welfare Organization

United Nations Population Fund in the Islamic Republic of Iran (UNFPA)

Universities of Medical Sciences and Health Services
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Major challenges and remedial actions
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<th>Acronyms</th>
<th>Description</th>
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<td>AIDS</td>
<td>Acquired Immunodeficiency Syndrome</td>
</tr>
<tr>
<td>ART</td>
<td>Antiretroviral Therapy</td>
</tr>
<tr>
<td>CCM</td>
<td>Country Coordinating Mechanism</td>
</tr>
<tr>
<td>CSW</td>
<td>Sex Worker</td>
</tr>
<tr>
<td>DIC</td>
<td>Drop in Center</td>
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<tr>
<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
</tr>
<tr>
<td>IDU</td>
<td>Injecting Drug User</td>
</tr>
<tr>
<td>MSM</td>
<td>Men who have Sex with Men</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-governmental Organization</td>
</tr>
<tr>
<td>PEP</td>
<td>Post-exposure prophylaxis</td>
</tr>
<tr>
<td>PLHIV</td>
<td>People living with HIV</td>
</tr>
<tr>
<td>RDS</td>
<td>Respondent Driven Sampling</td>
</tr>
<tr>
<td>Sexual Intercourse</td>
<td></td>
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<tr>
<td>STI</td>
<td>Sexually Transmitted Infection</td>
</tr>
<tr>
<td>VCT</td>
<td>Voluntary Counseling and Testing</td>
</tr>
<tr>
<td>UNAIDS</td>
<td>Joint United Nations Programme on HIV/AIDS</td>
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<tr>
<td>UNGASS</td>
<td>United Nations General Assembly Special Session (on AIDS)</td>
</tr>
</tbody>
</table>
Introduction

Today, the Islamic Republic of Iran is facing a critical phase in its HIV epidemic because growing HIV prevalence among injecting drug users has shifted the country from a low prevalence to a concentrated epidemic over the past decade, giving rise to serious concern about increased HIV prevalence among IDUs and other most-at-risk populations. With effective advocacy among policymakers and the (consequent) key decisions on harm reduction, very useful interventions are being implemented to deliver and extend HIV/AIDS services to IDUs and prisoners but, crucially at this juncture, these services need to improve in terms of quantity and quality and their coverage extended to other most-at-risk populations and those who have sexual relations with them. Further, Iranian society has very strong religious foundations and the majority of the population attaches great importance to the family institution; if properly mobilised, this can be a valuable tool in preventing the spread of the HIV epidemic. This report is the most important country report in the field of HIV/AIDS, and while reporting on the DoC core indicators, is also intended to provide a general picture of the HIV epidemic in Iran. Based on the DoC, the Islamic Republic of Iran and the other 188 UN member states pledged in June 2001 to control and prevent the transmission of HIV/AIDS. In June 2006, United Nations member states met in the General Assembly to review progress and reiterate their commitments of 2001. The core indicators for monitoring DoC progress are significant on four grounds: first, they help evaluate the effectiveness of our national response to the epidemic; second, they form a basis for comparing trends in service delivery, programme outcomes and the epidemic itself; third, they show the level of our country’s commitment to the DoC; and fourth, they express the relative status of our country within the global response to HIV/AIDS. This is the second time that Iran is reporting its DoC core indicators within the framework of UNAIDS guidelines. The first report was published in 2005 and, despite its significant shortcomings, was used subsequently to develop the second national HIV/AIDS strategic plan and as an advocacy tool. The second report, despite its shortcomings, contains very important information, which was produced, collected and analyzed by colleagues at country level. We hope that it constitutes a step towards controlling the spread of HIV in Iran. Nevertheless some shortcomings in the report are to be expected and we sincerely welcome any criticism or comment in this regard.
Methodology

Report Construction
In order to prepare the second National Declaration of Commitment on HIV and AIDS report, a team consisting of members from HIV and AIDS prevention programme partners was established in the summer of 2007 by the National HIV/AIDS Monitoring and Evaluation Committee. This team had members from the governmental sector, such as the Ministry of Health and Medical Education, Prison Organizations, State Welfare Organization, Universities, Joint United Nations Programme on HIV and AIDS in the Islamic Republic of Iran (UNAIDS), PLHIV, and Non–Governmental Organizations, which commenced their job in October of the current year.

Data collection method
This team divided the indicators based on method of calculation (source of data) into 5 groups:
- Group that used data supplied by the national monitoring programme;
- Group that used data supplied by behavioural sentinel surveillance;
- Group that used data supplied by biological sentinel surveillance;
- Group that used data supplied through interviewing key individuals; and
- Group where data should (in theory) have been generated through biological and/or behavioural surveillance but which, in the absence of national surveillance-based estimates, was extrapolated from scattered studies in the relevant areas.

In order to obtain the data required to monitor national programme activities, extensive correspondence took place with medical universities and governmental organizations (Drug Control Headquarters, the Prisons Organizations, State Welfare Organization, Iranian Red Crescent Society, Blood Transfusion Organization, Ministry of Education, Islamic Republic of Iran Broadcasting, the armed forces and the police, and departments within the Ministry of Health and Medical Education, such as the Drug Abuse Prevention and Treatment Office).

Existing data in the Centre for Diseases Control was also brought together. Further, in order to complete and triangulate some data, key informants were interviewed and the information so obtained was compared with that from other sources and eventually finalized. To obtain biological and/or behavioural data, often generated as part of projects either directly commissioned by the CDC or developed in close association with this institution, the principal investigators of these studies were contacted directly to access data or else to speed up completion of the projects and release of results.

Studies were identified by searching Farsi and foreign-language databases and contacting medical universities and organizations active in the field of HIV/AIDS. Studies providing data deemed useful in the development of the report were selected, and their principal authors contacted to obtain the raw data needed to calculate the indicators.

In order to compile the second indicator (National Composite Policy Index), key individuals from the governmental and non–governmental sectors as well as from
among PLHIV were identified and interviewed using the questionnaire accompanying the UNAIDS guidelines.

Data classification, summary and analysis
All the studies obtained were reviewed, and the data needed to produce the DoC indicators extracted, summarized and stratified, compared with each other and analyzed and presented as descriptive indicators as relevant.

Finalizing the report
Given that many of the indicators of the HIV epidemic concern hidden behaviours and/or populations that do not register on official systems, studies in these populations becomes a very demanding task; there is no guarantee that two surveys using the same methodology will actually yield the same results. On the other hand, for programming purposes, we certainly need to generate these indicators in a way that is acceptable to the majority of programme stakeholders. An initial draft of the report was therefore sent for comment to a number of individuals and institutions active in the field of HIV and AIDS. The report was finalized after discussion and revision of the initial draft during a meeting specifically convened for this purpose.
Status at a glance
Country Overview – Iran

National Commitment and Action

| 1. AIDS Spending | Domestic and international AIDS spending by categories and financing sources | Total national funds: 275,636,680 Thousand Rls in 2006  
Total international funds: 28,051,233 Thousand Rls in 2006 |
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>2. Government HIV and AIDS Policies</td>
<td>National Composite Policy Index</td>
<td>Refer to the text</td>
</tr>
</tbody>
</table>

National Programme Indicators

| 3. Blood safety | Percentage of donated blood units screened for HIV in a quality assured manner | 100% in 2006 (from 1,691,319 blood transfusions)  
Reference: statistics of Blood Transfusion Organization |
|-----------------|--------------------------------------------------------------------------------|---------------------------------------------------------------|
| 4. HIV Treatment: Antiretroviral Therapy | Percentage of adults and children with advanced HIV infection receiving antiretroviral therapy | 9.5% in September 2007, according to:  
- Number of people receiving ART, 829 individuals  
- Estimation number of people with advanced HIV infection, 8730 individuals |

1 The period covered for this indicator is March 2006 to March 2007.
<table>
<thead>
<tr>
<th>Indicator</th>
<th>Description</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.</td>
<td>Prevention of Mother-to-Child Transmission</td>
<td>Percentage of HIV-positive pregnant women who received antiretrovirals to reduce the risk of mother-to-child transmission</td>
</tr>
<tr>
<td>6.</td>
<td>Co-management of Tuberculosis and HIV Treatment</td>
<td>Percentage of estimated HIV-positive incident TB cases that received treatment for TB and HIV</td>
</tr>
<tr>
<td>7.</td>
<td>HIV Testing in the General Population</td>
<td>Percentage of women and men aged 15-49 who received an HIV test in the last 12 months and who know their results</td>
</tr>
<tr>
<td>8.</td>
<td>HIV Testing in Most-at-risk population</td>
<td>Percentage of most-at-risk populations that have received an HIV test in the last 12 months and who know their results</td>
</tr>
<tr>
<td>9.</td>
<td>Most-at-risk populations: Prevention Programmes</td>
<td>Percentage of most-at-risk populations reached with HIV prevention programmes</td>
</tr>
<tr>
<td>10.</td>
<td>Life skills-based HIV education in schools</td>
<td>Percentage of schools that provided life skills-based HIV education in the last academic year</td>
</tr>
</tbody>
</table>

Reference: organizations providing ART and estimation of number of PLHIV

10.0% in 2006 according to:
- Number of HIV-positive pregnant women receiving ART to prevent the mother to child transmission, 22 individuals
- Estimation of HIV-positive pregnant women, 220 individuals in the same year

Reference: Statistics from Civil Registration Organization, Mothers and children Health bureau, Sentinel surveillance by Center for Disease Control, MOH

20% from Mid 2006 until Mid 2007 according to:
- Number of 52 individuals received treatment for TB and HIV
- Estimation of HIV-positives who had TB, 260 individuals

Since there is no study asking relevant questions to this indicator, calculation is not possible.

- IDUs in 2007: 22.9% (702 out of 3060 individuals)
- Female sex workers in Tehran in 2007: 20.4% (57 out of 280)
- No generalizable report on MSM (refer to text for further info)

There is no sufficient data for calculating this indicator. Please refer to text.

Zero per cent in the scholar year 2006-07 (some trainings are being provided, further explained in the text)
<table>
<thead>
<tr>
<th></th>
<th>Knowledge and Behaviour Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.</td>
<td>Young People: Knowledge about HIV Prevention</td>
</tr>
<tr>
<td></td>
<td>Percentage of young women and men aged 15-24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission</td>
</tr>
<tr>
<td></td>
<td>No data is available for all the 5 questions but there is information about each question, explained further in the text</td>
</tr>
<tr>
<td>12.</td>
<td>Most-at-risk Populations: Knowledge about HIV Prevention</td>
</tr>
<tr>
<td></td>
<td>Percentage of most-at-risk populations who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission</td>
</tr>
<tr>
<td></td>
<td>IDUs in 2007: 23.7% fully aware of preventive measures (728 out of 3060 individuals)</td>
</tr>
<tr>
<td></td>
<td>Women sex workers in Tehran in 2007: 7.9% fully aware of preventive measures (22 out of 280 individuals)</td>
</tr>
<tr>
<td></td>
<td>No generalizable info on MSM (refer to the text for further info)</td>
</tr>
<tr>
<td>13.</td>
<td>Sex before the age of 15</td>
</tr>
<tr>
<td></td>
<td>Percentage of young women and men aged 15-24 who have had sexual intercourse before the age of 15</td>
</tr>
<tr>
<td></td>
<td>According to a research in 7 provinces of the country in 2005-6: 15.9% single men (177 out of 1114) and 4.5% single women (53 out of 1188) had sexual intercourse before the age of 19</td>
</tr>
<tr>
<td>14.</td>
<td>Higher-risk Sex</td>
</tr>
<tr>
<td></td>
<td>Percentage of women and men aged 15-49 who have had sexual intercourse with more than one partner in the last 12 months</td>
</tr>
<tr>
<td></td>
<td>Available information is not generalizable (refer to the text for further info)</td>
</tr>
<tr>
<td>15.</td>
<td>Condom Use During Higher-risk Sex</td>
</tr>
<tr>
<td></td>
<td>Percentage of women and men aged 15-49 who have had more than one sexual partner in the past 12 months reporting the use of a condom during their last sexual intercourse</td>
</tr>
<tr>
<td></td>
<td>Available information is not generalizable (refer to the text for further info)</td>
</tr>
<tr>
<td>16.</td>
<td>Sex workers: Condom Use</td>
</tr>
<tr>
<td></td>
<td>Percentage of female and male sex workers reporting the use of a condom with their most recent client</td>
</tr>
<tr>
<td></td>
<td>In a study throughout Tehran in 2007: 55.0% (154 out of 280 individuals)</td>
</tr>
<tr>
<td>17.</td>
<td>Men Who Have Sex with Men: Condom Use</td>
</tr>
<tr>
<td></td>
<td>Percentage of men reporting the use of a condom the last time they had anal sex with a male partner</td>
</tr>
<tr>
<td></td>
<td>No generalizable info (refer to the text for further info)</td>
</tr>
</tbody>
</table>
18. Injecting Drug Users: Condom Use
Percentage of injecting drug users reporting the use of a condom the last time they had sexual intercourse
Country wide in 2007: 32.8% (519 out of 1582)

Percentage of injecting drug users reporting the use of sterile injecting equipment the last time they injected
Country wide in 2007: 74.5% (1516 out of 2036)

Impact Indicators

20. Reduction in HIV Prevalence
Percentage of young people aged 15-24 who are HIV infected
According to the antenatal sentinel surveillance in clinics providing services to pregnant women till 2006 is 0%

Percentage of most-at-risk populations who are HIV infected
- IDUs in 2007: through out the country 18.8% (318 out of 1693) and through out Tehran 12.3% (18 out of 149)
- For women sex workers there is no generalizable info (refer to the text for further info)
- There is no generalizable info for MSM (refer to the text for further info)

22. HIV Treatment: Survival after 12 months on Antiretroviral Therapy
Percentage of adults and children with HIV known to be on treatment 12 months after initiation of antiretroviral therapy
In September 2006 77.8% (1,386,277 individuals who have received ART have gone under treatment and survived)
Overview of the AIDS epidemic

This section presents the general state of the HIV epidemic in the Islamic Republic of Iran from 2005 to 2007, based on data collected in case registry system of CDC MOH, data from sentinel site and other relevant studies. Data from case reporting/registration system: based on the case registration system hosted by the AIDS Control Bureau of the Ministry of Health and Medical Education, the first case of HIV infection in Iran was reported in 1986. Between 1986 and 1995, annual reports showed only a slow increase in the number of reported cases. In 1995, with the emergence of HIV epidemics in a number of prisons, the number of reported cases increased in sudden fashion; this trend continued until 2004, when the annual number of new case reports peaked. Since then, the total number of reported cases has shown a downward trend. [1] One should also bear in mind that the case reporting system was revised in 2004, including the case reporting forms. [2] This meant that many cases, which had been previously identified but not reported, were formally reported in 2004. Caution is to be exercised in interpreting epidemic trends on the basis of case reporting data. The first case of HIV transmission through injecting drug use was reported in 1992, with only about 5 new cases of transmission by this route being reported per year until 1995. With the emergence of the epidemic among injecting drug users, the number of new cases of transmission by this route increased thirty-fold in 1995, and thus injecting drug use became the most common route of HIV transmission in Iran, with the total number of reported cases of HIV infection by this route increasing year-on-year up to the present; injecting drug use remains the most common route of HIV transmission in Iran. [1] As of 22 Sep 2007, a total of 16,090 people are reported to be infected with HIV in the country [3], with transmission in 66.7% of them attributed to injecting drug use, in 7.5% to sexual contact, in 0.5% to mother-to-child transmission, and in 1.5% to transfusion of blood products; the route of transmission is unclear in 23.7% of cases. [3] Even though the proportion of cases accounted for by sexual transmission has remained more or less constant in recent years at 5-8%, the absolute number of cases has increased from 50 in 2000 to three times that figure in 2006 [1]. The proportion cases where the route of transmission is unclear has also increased in recent years, going from 8.2% in 1998 to 23.7% in 2006 [1]. This leads us to postulate that at least part of the increase in the proportion of cases where the route of transmission is unclear is accounted for by an increase
in the number of cases of sexual transmission, which remain unrecognized because of the associated stigma [4]; also contributing is an increase in the number of cases reported through the surveillance system, where, given the methodology used, the route of transmission remains unclear. Of the total number of cases reported to date, 2121 have died and 1122 have progressed to AIDS. Out of the total number of people infected with HIV as of 22 Sep 2007, 0.3% has been aged 4 years or less, with a further 0.5% aged between 5 and 14 years. The most common age group among reported cases is 25-34, accounting for 40.3% of reported cases. The next most common age group is 35-44, accounting for 32.2% of reported cases [3]. Only 5.8% of cases so far reported have been in women [3], which could because injection drug use is the predominant route of transmission and there are relatively few women IDUs. But there are also concerns that the case finding and reporting system is not tuned to detect cases of HIV infection among women. On the other hand, epidemic trends vary across provinces, with estimated population incidence rates (annual) varying from 2.3 per 100,000 to 103.6 per 100,000 [5]. This heterogeneity is apparently due to differences in the prevalence of high-risk behaviours between regions as well as in the coverage of services leading to case detection. There is no homogeneity even in the case of the most common route of transmission; whereas injecting drug use is the most common route of transmission in the overwhelming majority of provinces, in one province the proportion of cases attributed to injecting drug use and sexual contact is the same. [6]

HIV prevalence in different groups: taken together, data from the case reporting and surveillance systems and individual surveys indicate that:

1. The prevalence of HIV infection in the general population is low, such that not a single case of HIV infection has so far been reported through antenatal sentinel surveillance; [6]
2. HIV prevalence among injecting drug users grew rapidly in the late 1990s and early 2000s and passed the critical 5% barrier. [7] But it appears that with the expansion of harm reduction interventions in prison and community settings in the latter half of the current decade, the rate of increase in prevalence among this group has slowed down, and has in fact not reached the very high levels reported in countries without harm reduction programmes;
3. HIV prevalence among prisoners has followed a similar pattern as among injecting drug users;
4. Data from a number of scattered studies indicate that HIV prevalence among non-injecting female sex workers remains low, and certainly has not reached the critical 5% threshold. Anecdotal reports regarding injecting female sex workers indicate that HIV prevalence in this group is the same as among injecting drug users in general; [8]
5. Even though the route of transmission in the majority of reported cases remains through injection (drug use), the proportion of cases due to sexual transmission and the absolute number of cases where transmission occurred
through sex have both increased [6], and this suggests that specific attention should be given to the prevention of sexual transmission. A large proportion of male injecting drug users and male prisoners are married (30-50%) [9]. Even though prevalence studies have not specifically been conducted among the spouses of these two groups, the overwhelming majority of the reported cases of HIV infection among women have occurred in the spouses of the latter groups. The number of reported cases among women married to HIV-positive men has increased from 6 cases in 2001 (0.5% of all cases reported in that year) to 81 cases in 2006 (2% of all cases reported in that year). [6]

As regards the prevalence of HIV among men who have sex with men, information is very scant and no general pattern may be inferred from it.

Estimate of the number of people living with HIV: As in other countries, the number of reported cases in Iran only represents a fraction of the overall number of cases. Even though estimation of the number of people living with HIV and the size of at-risk populations is a complicated process in most countries, nevertheless estimation of the number of people living with HIV within each at-risk group is one of the indicators needed to monitor the success or otherwise of prevention programmes, and to help guide prevention policies commensurate with the size of at-risk populations, the scope and trend of the epidemic in each group, and neglected areas of programming. Efforts to estimate the number of people living with HIV have been ongoing since 2003. In that year, using the estimation and projection software package, a team of national experts estimated the number of people living with HIV to be between 30,000 and 40,000. In 2005, using the same approach, the number was estimated at 60,000-70,000. [10] It is predicted that the estimate will approach 80,000 this year, which, although it shows an increase from the previous estimates, also shows a marked flattening of the slope of the curve; this may cautiously be attributed to the relative success of harm reduction programmes for injecting drug users. Nevertheless, and in spite of these encouraging findings, we must be careful in jumping to any definite conclusions; we should expand the coverage of these programmes and await the results of further assessments. This is because the quality and precision of our estimates depend directly on the quality and precision of data pertaining to the size of different at-risk populations and HIV prevalence among them. By strengthening surveillance programmes in these populations, in time the quality of information will improve and may even depict an epidemic scenario quite different to that previously reported. These changes may not necessarily represent any fundamental change in the dynamics of the epidemic within different groups, merely better quality information.
National Response to the AIDS epidemic
National Commitment and Action Indicators
Indicator 1. AIDS Spending

Definition of indicator: Domestic and international AIDS spending by categories and financing sources

Purpose of indicator: To collect accurate and consistent data on how funds are spent at the national level and where those funds are sourced. Inquiries from officials at ministries and other institutions which have used national funds to launch HIV/AIDS control programs:

Method of Measurement:
1. Enquiries from the health departments of Universities of Medical Sciences and Health and Treatment Services about their spending on measures to control and prevent HIV/AIDS.
2. Making inquiries from international organizations about their spending on HIV/AIDS control and prevention programs.
3. Making an inquiry from the Global Fund to fight AIDS, Tuberculosis, and Malaria in Iran about its spending on measures to control and prevent HIV/AIDS.

As an important institution, which plays a key role in developing the macro-strategies of the government in the fight against drugs, the Drug Control Headquarters is actively involved in allocation of money to harm reduction programs and distribution of funds to different agencies in the field. In order to collect accurate figures and avoid any miscalculation, the inquiries in question, have been sent to the institutions which have actually authorized the spending. Then the figures have been double-checked with the Drug Control Headquarters.

Value of indicator: The amount of money spent by the government of the Islamic Republic of Iran to control and prevent HIV/AIDS between March 21, 2006 and March 20, 2007 totalled 275,636,680 thousand rials. During the same period, international organizations spent 28,051,233 thousands rials. Table 1 provides a breakdown of these figures by broad programmatic areas.
<table>
<thead>
<tr>
<th>Expenditure Category</th>
<th>Organization Reporting Expenditure</th>
<th>Government Sources ( thousand rials)</th>
<th>International Sources ( thousand rials)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Universities of Medical Sciences and Health and Treatment Services</td>
<td>Other state organizations Ω</td>
<td>Total</td>
</tr>
<tr>
<td>Prevention α</td>
<td>64,456,095</td>
<td>111,024,310</td>
<td>175,480,405</td>
</tr>
<tr>
<td>Care and Treatment β</td>
<td>11,671,465</td>
<td>12,586,229</td>
<td>24,257,695</td>
</tr>
<tr>
<td>Social Advocacy π</td>
<td>551,018</td>
<td>5,787,690</td>
<td>6,338,708</td>
</tr>
<tr>
<td>Policy Management μ</td>
<td>14,607,580</td>
<td>20,628,457</td>
<td>35,256,037</td>
</tr>
<tr>
<td>Staff Salaries</td>
<td>15,986,837</td>
<td>15,822,220</td>
<td>31,809,057</td>
</tr>
<tr>
<td>Improvement of Social Conditions ◊</td>
<td>801,856</td>
<td>160,000</td>
<td>961,856</td>
</tr>
<tr>
<td>Research ○</td>
<td>825,733</td>
<td>727,186</td>
<td>1,552,919</td>
</tr>
<tr>
<td>Total</td>
<td>96,071,347</td>
<td>166,736,093</td>
<td>275,636,680</td>
</tr>
</tbody>
</table>

Ω Includes the Prisons’ Organization, Welfare Organization, the Blood Transfusion Organization, Islamic Republic of Iran Broadcasting (IRIB), the Red Crescent Society, and the Ministry of Education

α The spending on prevention includes education and information, publication of posters and pamphlets, organization of World AIDS Day ceremonies, workshops, seminars, meetings, and billboards, education of most-at-risk and high-risk groups and the youth, all harm reduction activities including methadone maintenance treatment, needles and syringes and condom, standard precautions, as well as costs associated with prevention and control (12,156,455 thousand rials in total) and treatment of sexually transmitted infections the total costs of which on the basis of the etiological diagnosis registered with the country’s health system stands at 26,725,160 thousand rials. Of the latter figure the out of pocket share stood at 14,282,220 thousand rials. The remainder (12,829,240 thousand rials) was paid by the government.

β Costs associated with care and prevention as well as treatment of opportunistic infections, costs of specialized and non-specialized tests, costs associated with improvement of living conditions, dental services and psychosocial support, costs of post-exposure prophylaxis (PEP) and prevention of mother-to-child transmission, costs of hospitalizing AIDS patients (5,723,195 thousand rials), and spending on antiretroviral drugs (5,000,000 thousand rials).

π Launching sentinel sites, in case there was enough funding mechanizing HIV/AIDS services, costs associated with upgrading laboratory equipment, costs of launching new centers including counseling and drop-in centers and AIDS laboratories, costs associated with launching and equipping outreach teams and vehicles, and salaries of the people who are involved in the field of prevention and control of HIV/AIDS including staff members of the headquarters, nurses, physicians, advisers and other personnel who do or do not have contracts

μ Costs of supporting HIV/AIDS patients and their families including cash and non-cash payments to patients and their families in populations most at risk of HIV/AIDS

◊ Costs associated with winning over policy and decision makers during meetings, seminars and tours and creation of associations involved in the field of HIV/AIDS

○ Costs associated with HIV/AIDS research at Universities of Medical Sciences and Health and Treatment Services and their research departments

▲ Total spending provided by government sources (in thousand rials)
Total spending provided by international sources (in thousand rials)
Interpretation of indicator: In the 12 months to March 21, 2007, government coffers have been the main provider of finances for implementation of HIV/AIDS control programs. The Global Fund to fight AIDS, Tuberculosis, and Malaria and international organizations paid for some 9.3% of all costs associated with HIV/AIDS control and prevention in the country. Some 63.7% of the government spending has focused on prevention. In HIV/AIDS control programs attention has been paid to all members of the general population, especially high-risk groups and prisoners. In allocation of funds, sex, age, ethnic and religious background and profession have not been a factor.
Indicator changes compared with previous report: The total spending of the government in the 12 months to March 21, 2007 nearly 2.3 fold increased over the same period two years earlier. International spending, excluding the project of the Global Fund to Fight AIDS, Tuberculosis, and Malaria, registered a two and a half fold increase during the same period.

Challenges and recommendations for indicator improvement:

**Challenges**: Absence of special HIV/AIDS control budgeting in some agencies such as the Welfare Organization and Prisons' Organization and absence of training and education
Indicator 2. National Composite Policy Index

**Purpose of indicator:** To assess progress in the development and implementation of national level HIV and AIDS policies and strategies

**Method of Measurement:** This indicator is calculated based on a UNAIDS questionnaire, which was completed using information provided by key informants as indicated in the section on methodology, above.

I- National Strategic Plan for HIV/AIDS Control and Prevention

The second National Strategic Plan (NSP) for control and prevention of HIV and AIDS epidemics was drafted at national level, with the participation of different sectors of relevant government bodies. The second NSP covers a three-year period from 2007 to 2009. (11) This multi-sectoral approach was taken up six years ago, when the first NSP was prepared. (10) Consequently, Ministry of Education, Drug Control Headquarters, Organization of Prisons and Punitive / Disciplinary Action (Prisons’ Organization), Iranian Red Crescent Society, Iranian Blood Transfusion Organization, State Welfare Organization, Islamic Republic of Iran Broadcasting, Iran Disciplinary Force, Organization of Bus Terminals, and UN agencies have all contributed to the process while Ministry of Health and Medical Education functioned as the secretariat. (11) Certain budget has been allocated to the activities done in the framework of NSP or in the organizational framework of each institution. The second NSP focuses on high risk groups, young men and women, and orphan and vulnerable children. It also takes notice of the setting issues such as schools, workplaces and prisons. Furthermore, the second NSP covers issues related to HIV, including poverty, human rights, involving people living with HIV, stigma and discrimination, and women's empowerment. (11) The target groups were identified on the basis of existing evidence and consensus of experts that reviewed and discussed their common experiences and observations rather than conducting a specific needs assessment and a situation analysis surveys. It was decided that the target groups of this plan are injecting drug users, prisoners and their spouse, male and female sex workers, street children, people living with HIV and their spouse, men who have sex with men, "mobile" population (sailors, travellers, and drivers that go abroad), non-injecting drug users, health staff, people with sexually transmitted diseases and their spouse, recipients of blood, and the youth. (11)

The second NSP includes an action plan with specific objectives. It also contains a detailed budget and funding resources for each objective. (11) Yet, no monitoring and evaluation framework was defined at the beginning. Soon after, an M&E structure was drafted and added to the document. It should also be noted that the civil society organizations could not contribute to the drafting process as anticipated because the bodies that had participated in the meeting were not representing the whole sectors of civil society. Nevertheless, the UN agencies acknowledged the second NSP and tried to
adjust their programs accordingly. On the other hand, Iran's Fourth National Economical, Social and Cultural Development Plan has endorsed the control and prevention of HIV and AIDS epidemics program, however, it has not particularly pointed out to the correlation of HIV and issues such as treatment of opportunistic infections and antiretroviral therapy, care and support to the people living with HIV and to their families, reduction of the impacts of AIDS prevalence, decrease in stigma and discrimination, and reduction of economical and gender inequalities; and because of current level of HIV prevalence among general population this approach seems reasonable.. (11) However, the second NSP has paid special attention to this issue. There was also no need to assess the financial impacts of HIV prevalence on the economic planning for the same reason. But two surveys have been conducted to measure the direct and indirect economic costs of HIV/AIDS, both of which will end soon. (13 and 14) The second NSP paid attention to the HIV/AIDS preventive measures in the Army with a focus on behaviour change. (11) Iran has attempted to comply with the commitments agreed upon UNGASS. It has taken those commitments into account and allocated funds to reach the objectives of its NSP. Iran also undertook the task of updating the estimation of the number of potential target groups. The data had been brought up to date in 2005. The information will be updated again this year. It was also tried to monitor the delivery of services to the injecting drug users and the people living with HIV.

Finally, the process of strategic planning for control and prevention of HIV and AIDS epidemics in 2005 and 2007 was rated as an achievement, due to following reasons. There were:
More focus on high risk groups;
More effective participation of NGOs;
Better use of information;
More attention on providing easy access to services;
More emphasis on production of strategic information;
More coordination among partner implementing bodies.

II- Political Support
High ranking authorities are now speaking about AIDS program and explicating supporting the current initiatives. In 1997, the Supreme Council of AIDS was established to manage and coordinate the relevant sectors of implementing bodies at national level. (15) The structure of the Council was revised in 2002 and, with the approval of its bylaws by the cabinet members, was legally authorized to carry out its program under the name of "Supreme Council of National Planning for Control and Prevention of HIV and AIDS Epidemics". (16) The organizational chart of the Council was, then, drafted. It included the specification of its secretariat and board members as well as their tasks and responsibilities. It was also anticipated that representatives from civil society organizations and people living with HIV would participate as observers in planning and decision making sessions of the Council so that
their views would be integrated in the significant processes. (16) Yet, the Council has been able to hold regular meetings since the last report was submitted. Consequently, it was incorporated in the "Supreme Council of Health and Food Security" as soon as this new Council was established in 2006. (17)

At present, the working group on AIDS at national level and its affiliated subdivisions at provincial levels are in charge of implementation of programs authorized by the Supreme Council of Health. At national level, five subcommittees of care and treatment, monitoring and evaluation, vulnerability reduction, social support, and education and communications take into service technical specialists and scientific consultants to review specialized aspects of the program and plan for appropriate interventions. Three of these committees are operational, but the other two have not started their activities yet. One of the tasks of the national committee and its provincial subdivisions is to increase the extent of interactions between different stakeholders, such as the government bodies, people living with HIV, private sector, and civil society organizations. The most significant success of this process was the implementation of many projects targeting injecting drug users and people living with HIV. Besides, the effective interaction of the stakeholders resulted in action plans drafted by CSOs at provincial level, with specific attention to current needs and capacities.

One of the most challenging barriers to participation of civil society organizations (CSO), at national level, is the lack of a national structure for making required coordination among CSOs that deliver services to people living HIV. However, there exist stronger relations at provincial levels. It does not mean that relevant bodies are active in all provinces. The level of participation is not always satisfactory, either. Based on official statistics, CSOs spent 7% of the total budget of AIDS prevention program in 2006. National Committee of AIDS and its sub-committees have supported their partner CSOs by identifying, prioritizing, and meeting their needs, offering technical advice, providing required equipment, and capacity building for them. Furthermore, the Drug Control Headquarters (DCHQ) has played a significant role in the process of reducing vulnerabilities caused by drug use. It could bring different stakeholders together, attract funds and disperse them among relevant implementing bodies, draw the attention and support of policy makers, and revise the laws and regulations concerning drug users. Simultaneously, it was tried to look into certain national policies and laws concerning prevalence of HIV and make required revisions. Accordingly, the head of the Judiciary issued two instructions on the removal of prohibitions regarding vulnerability reduction program (18) and also on stopping the arrest of drug users. (19) Besides, the deputy of the President instructed putting an end to mandatory blood test prior to official recruitment and dismissal of employees due to being HIV-positive persons. (20) The Ministry of Education announced that schools all over the country are obliged to register students living with HIV. (21) Other changes were as follows; prisoners living with HIV should not be kept separately from other detainees (22), vulnerability
reduction program should be recognized as a sort of treatment and drug users under its coverage should not be arrested (23), HIV testing prior to marriage and application for a visa is disallowed. (24)

It should be noted that one of the most remarkable successes was gaining the authorization of Expediency Council, and its subsequent approval by the venerable Supreme Leader, for both macro national policies on addiction and the strategy for "vulnerability reduction" program. (25)

In conclusion, the progress made in attracting political support for control and prevention of HIV and AIDS epidemics program in 2005-2007 was evaluated as positive, due to the following reasons:

- Advocacy among the highest policy making levels;
- Facilitating access to injecting drug users through proposing new regulations and making relevant legal revisions;
- Accepting to implement "vulnerability reduction" program in prisons and to decrease the number of detainees;
- Facilitating for an increase in the role of CSOs.

**III- Prevention**

There is a national strategy for information management, education and communication with the public, regarding HIV control and prevention. (11) Prevention strategies are adopted to enhance the idea being faithful in terms of sexual relations. The public is exposed to key messages on avoiding the use of injecting drugs altogether and promoting the use of sterilized injecting equipment. Strengthening the role of men in reproductive health and increasing the admission of more referrals to treatment centers are also part of prevention strategies. (11) During this period, certain programs for improving the quality of communication and reporting have been implemented through mass media. Besides, the strategies for educating the youth on productive health and safe sex and their relevance to HIV were translated into action. However, the formal education lacks in curriculum to educate primary and junior high school children on HIV. Of course, it the education on HIV is offered in high schools and, to some extent, in junior high schools. Last year, there was an increase in the number of such courses. It should be noted that the education on HIV is offered to boys and girls equally. Yet, no extra-curriculum activities have been developed for the youth. There is also a national strategy for information management, education and other preventive measures for high risk groups that required purposeful raising awareness of injecting drug users on how to reduce the risk of HIV transmission and use condoms consistently and correctly. They were also offered education on reproduction health and on how to protect themselves and deal with stigma and discrimination. Injecting drug users were given the opportunities for HIV testing and counselling. They were taken in under "needles and syringe" as well as methadone treatment programs, too. (11) During 2005-2007, the preventive programs were significantly expanded in prisons under the supervision of Organization of Prisons. Preventive services
included systematic purposeful raising awareness of injecting drug users on how to reduce the risk of HIV transmission and deal with stigma and discrimination. The concept of condom promotion was promoted, and the injecting drug users were offered the opportunities for HIV testing and counselling. They were also given education on reproductive health and vulnerability reduction. Besides, the spouses of prisoners received the same education and information. In addition, the preventive programs included truck drivers working at international scales as one of its target groups and offered them education on the consistent and correct use of condoms and on how to reduce the risk of HIV transmission. It should be noted that the female sex workers received the same education and services, but to a limited extent. On the whole, the efforts to improve the policies of prevention of HIV in 2005-2007 were assessed as successful. The success was basically due to integration of more vulnerable groups, such as female sex workers and spouses of injecting drug users, in the program and preparing the draft of "National Policies for Control and Prevention of HIV epidemics". (26) During the past two years, the areas in need of preventive services were also identified. Later on, the program extended its services, including provision of safe blood, universal precautions, and prevention of mother-to-child transmission, to all recognized places. In brief, the prevention program achieved its goal through increasing its coverage of "needles and syringe" and Methadone treatment services, extending the preventive program to prisons, and integrating more high groups in the plan.

IV- Care and Support
The national strategy for care and support to people living with HIV/AIDS pays specific attention to women, children, and some high risk groups like injecting drug users. It also focuses on how to remove the barriers for providing services to them. (11) During 2005-2007, the areas in need of services, such as antiretroviral therapy for children and adults, treatment of opportunistic infections, treatment and care for the patients affected by the HIV-related diseases, co-trimoxazole prophylaxis and diagnosis and treatment of tuberculosis, preventive treatment of tuberculosis, and treatment of sexually transmitted diseases were identified nationwide. Later on, appropriate programs were developed and implemented there. HIV testing and counselling programs, home care services, psycho and mental health care, and preventive actions after HIV transmission for patients suffering from tuberculosis was were offered in some areas, where required. Nevertheless, no nutrition care program was initiated at national level, except for publication of a guideline. In general, it was concluded that several factors, including increase in coverage of antiretroviral therapy, increase in the available regimens of antiretroviral treatment, bringing the instructions on antiretroviral treatment up to date, increased accessibility to CD4 machines, starting home care and psychosocial care programs had contributed to the success in putting the care and treatment programs into operation.
It should be noted that in spite of existing strategy and policy on orphans and other children made vulnerable by AIDS, no program has been developed to meet the need of such children yet. Of course, the issue of street children has been observed since a few years ago. At present, certain bylaws authorize the Social Welfare Organization (SWO) to take care of these children. Besides to SWO, municipalities, and to some degree, the NGOs for supporting orphans and children with inappropriate guardians are extending their services to street children. Altogether, there was observed no remarkable progress in responding the needs of orphans and other children made vulnerable by AIDS in 2005-2007.

V- Monitoring and Evaluation
The strategy for monitoring and evaluation has presently been drafted and incorporated in the second NSP. Furthermore, an action plan has been consequently prepared. (11) Many implementing partners contributed to the process of drafting the action plan, yet CSOs did not have the opportunity to offer their inputs. (11) This action plan has paid specific attention to the necessity of developing a system of data collection and analysis, of behaviour-biological observing measures, and a set of standard indicators. It was also decided to develop certain guidelines for data collection and draw up strategies for conducting quality assessment, acquiring precise data, and effective data management. A committee consisted of 14 members was established a year ago to direct and carry out monitoring and evaluation process at national level. (27) One of the AIDS Control Office is the secretary of this committee. The committee members met last in 2007. At the moment, there is no representative of CSOs in the committee. The committee has failed to set up a database and publish its annual report regularly. However, it could publish a report on monitoring and evaluation of activities carried out in 2003-2005. (28)

Despite some of its shortcomings, the monitoring and evaluation program has succeeded in different aspects; a national committee was set up with clearly defined terms of reference, bio-behavioral observing measures were undertaken among injecting drug users at a national scale and also among a group of female sex workers, a limited survey was conducted among MSM, and the second national monitoring and evaluation system was drafted.

VI- Human rights
There are certain laws and regulations that protect people living with HIV against discrimination. The vice-president issued a circular prohibiting the HIV testing prior to employing staff. Based on this instruction dismissal of the staff living with HIV is disallowed. (20) Another circular issued by the Ministry of Education enforces the registration of children living with HIV in schools. (21) A circular has been issued to detention facilities throughout the country that prohibits segregation of HIV-positive inmates. A law exempting prisoners with hard-to-cure illnesses from punitive action has been extended to inmates in the AIDS phase of the disease, of which judicial authorities have been duly
informed. Certain articles in the Constitution of the Islamic Republic of Iran stress on equality of all persons before the law, the state’s responsibility in eliminating unfair discrimination against any person in all material and spiritual spheres, equal enjoyment of political, economic, cultural and human rights for all citizens and equality of access to health and treatment services. (29)

The NSP emphasizes on the right of patients to confidentiality as their human rights. (11) There is no gender disparity access to preventive measures. The local or national ethics committee should be informed and approve all HIV/AIDS research protocols involving human subjects. There are some rules and regulations for elimination of discrimination against the injecting drug users and detainees and for protection of their rights. The instruction of the head of Judiciary to avoid the arrest of those injecting drug users that are under the coverage of vulnerability reduction program stands out as an example of current protection. It should be noted that use of drug is considered as an offence under current laws. (23) Other instructions include the expansion of vulnerability reduction programs in prisons (18) and stopping the arrest of people because of drug use. (19)

Furthermore, the draft of "Policies on AIDS in the Islamic Republic of Iran" has stressed on the non-discriminatory service delivery to people with different individual behaviour. (26) However, there is no emphasis on the high risk groups. The government attempted to involve some of the high risk groups in the planning and implementation of the programs. Some examples are the participation of such groups in CCM, the preparation of UNGASS report, authorization of Society of People Living with HIV, and support to peer groups in helping with vulnerability reduction programs and with recovery of drug users.

Access to preventive measures and antiretroviral therapy is free of charge. Vulnerability reduction services at DICs and mobile clinics, methadone treatment, all vulnerability reduction services in prisons, and HIV testing and counselling are also free of charge. Although there is no legal prohibition for high risk groups to access the preventive, treatment and care services, female sex workers and MSM have, apparently, less access to such services than drug users and detainees. There were also some programs presented by media for elimination of discrimination and stigma against people living with HIV/AIDS. Judicial authorities have received some training on issues that might arise regarding HIV/AIDS and human rights. Moreover, there were certain programs in place aiming to change public attitudes towards HIV/AIDS-related discrimination and stigmatization and create a better understanding and acceptance of patients.

On the whole, during 2005-2007, there have been relative improvements in policies, laws and regulations to enhance and safeguard the human rights of people living with HIV as well as efforts to harmonize policy implementation with human rights. This is mainly due to advocacy among higher levels of the Judiciary on human rights and demanding the revision of relevant laws.
VII- Civil Society Participation
In the past recent years, some civil society institutions have remarkably expanded their scope of work in HIV/AIDS control programs. They could attract the support of high ranking political leaders and authorities to such programs. The civil society organizations played an enhanced role in drafting the National Plan and had a major contribution in implementation of vulnerability reduction programs for high risk groups.
National Programmes
Indicators
Indicator 3. Blood Safety

**Definition of indicator:** Percentage of donated blood units screened for HIV in a quality assured manner

**Purpose of indicator:** To assess progress in ensuring a safe blood supply

**Recommended method of measurement:** RAME Tool (Framework for Assessment, Monitoring and Evaluation of blood transfusion services): a rapid assessment tool used by the WHO Global Database on Blood Safety

**Method of measurement used by this report:**
Monitoring the programs through inquiries from the Blood Transfusion Organization which is the sole handler of blood supply, processing and transfusion in the country

**Recommended method of measurement:** The information relates to data from the previous 12 months (January-December). This information should be available from the National Blood Transfusion Service or the National Blood Programme Manager in the Ministry of Health

**The following information is required to measure this indicator:**

1. What was the total number of blood units that were donated in the country?
   For each blood centre and blood screening laboratory that screens donated blood for HIV:
2. How many units of blood were donated in each blood centre/blood screening laboratory?
3. How many donated units were screened in the blood centre/blood screening laboratory?
4. Does the blood centre/blood screening laboratory follow documented standard operating procedures for HIV screening?
5. Does the blood centre/blood screening laboratory participate in an External Quality Assessment Scheme for HIV screening?

From this information, the indicator can be calculated.

**Numerator:** Number of donated blood units screened for HIV in blood centers/blood screening laboratories that have both: (1) followed documented standard operating procedures and (2) participated in an external quality assurance scheme

**Denominator:** Total number of blood units donated method of measurement in this report: The same as recommended

**Value of indicator:** Between June 2006 and June 2007, Elisa Test was used to screen for HIV 100% of all blood units donated (1,691,319 cases of blood donation). (Table 2)
Table 2: Blood donating statistics and characteristics of donated blood in different provinces

<table>
<thead>
<tr>
<th>Province</th>
<th>Number of blood donors</th>
<th>Number of screened blood by an standard operating procedure</th>
<th>Number of blood screened by a laboratory assessed by an external evaluator</th>
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<tr>
<td>Total</td>
<td>1691319</td>
<td>1691319</td>
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</table>
- A method with guaranteed quality was used to screen all donated blood.
- A standard operating procedure was in place for the screening of 100% of donated blood units.
- External supervision has been in place for the screening of 100% of donated blood.
- A central laboratory has supervised the workings of provincial labs and, in turn, a quality control unit operating outside the Blood Transfusion Organization has kept an eye on the central laboratory.

**Interpretation of indicator:** HIV screening got underway in the Islamic Republic of Iran in 1989. A system which required mandatory replacement of the blood transfused into patients has been shelved. Blood donors are chosen in keeping with criteria which help to prevent the transmission of blood-borne diseases. International criteria are used in the refining of all blood products.

**Indicator changes compared with previous report:** In the previous report, just like this one, the value of indicator was 100%. There has been no change. Attention is being paid to measures to maintain the quality of donated blood.
Indicator 4. HIV Treatment: Antiretroviral Therapy

Definition of indicator: Percentage of adults and children with advanced HIV infection receiving antiretroviral therapy

Purpose of indicator: To assess progress towards providing antiretroviral combination therapy to all people with advanced HIV infection

Recommended method of measurement:
For the numerator: facility ART registers and ART cohort analysis report forms, or programme monitoring tools.
For the denominator: antenatal clinic surveillance or estimation models.

Recommended method of measurement:
As for the numerator, written inquiries were sent to health departments of 41 Universities of Medical Sciences and Health and Treatment Services, which are the sole providers of antiretroviral therapy in the healthcare system of the Islamic Republic of Iran. As for the denominator, Spectrum Software was used to make estimates.

Method of measurement used by this report: ART registers HIV surveillance systems

Numerator: Number of adults and children with advanced HIV infection who are currently receiving antiretroviral therapy in accordance with the nationally approved treatment protocol (or WHO/UNAIDS standards) at the end of the reporting period

Denominator: Estimated number of adults and children with advanced HIV infection

Method of measurement used by this report: The same as recommended

Value of indicator: As of September 21, 2007 the percentage of antiretroviral therapy (ART) coverage among all identified and unidentified patients stood at 9.5 – 15 years and older 9.4%; those under 15 years of age 16.2%.

Numerator: As of September 21, 2006 the number of patients who received ART was 522. One year later, it rose to 829. (Table 2)

Denominator: Estimates by Spectrum Software, which does not allow for gender-based desegregation, show that by September 21, 2007 the number of people across the country who needed ART stood at 8,730 (8,600 over 15 years of age and 130 under 15) compared with 7,335 a year earlier (7,235 over 15 years of age and 100 under 15).
<table>
<thead>
<tr>
<th>Time</th>
<th>N1</th>
<th>N2</th>
<th>N3 coverage</th>
<th>N1</th>
<th>N2</th>
<th>N3 coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>End of Aug 2006</td>
<td>12</td>
<td>4</td>
<td>16/0%</td>
<td>412</td>
<td>94</td>
<td>506/7/0%</td>
</tr>
<tr>
<td>End of Aug 2007</td>
<td>14</td>
<td>7</td>
<td>16/2%</td>
<td>683</td>
<td>125</td>
<td>808/9/4%</td>
</tr>
</tbody>
</table>

n1: number of men who are under ART
n2: number of women who are under ART
n3: number of men and women who are under ART

*coverage calculated by number of those under ART divided by estimated number of those in need of ART

**Interpretation of indicator:**
Provision and distribution of antiretroviral drugs became part of the country's healthcare system in 1997 when antiretroviral drugs including lamivudine, zidovudine, and indinavir made it into Iran's pharmacopoeia. Subsequently, indinavir was removed from the list of Iranian generic drugs and nelfinavir and abacavir were added onto the list. In 2004 the go-ahead to bring in didanosine, stavudine, and nevirapine was secured. In 2005 stavudine and nevirapine became available to patients. After a while didanosine also became available. In 2006 as part of a project initiated by the Global Fund to Fight AIDS, Tuberculosis, and Malaria, efavirenz was introduced into the country's drug system. Later in the same year, the global fund tried to bring in Kaletra, tenofovir, and atazanavir which are now available to patients. Except for the last three items, government has paid for all other antiretroviral drugs available in Iran. The antiretroviral therapy is in line with a country guideline featuring clinical care for HIV/AIDS patients. The guideline has been recently updated. In all, it is possible to prescribe 13 three-drug combinations by the drugs already mentioned. Prescription of antiretroviral drugs on the basis of the guideline in question is free and conducted by counselling centers for behavioral diseases (triangular clinics) which operate under the supervision of Universities of Medical Sciences. There have been no limits as far as the number of patients is concerned. Besides, no one has been given any priority on the basis of gender, age or social background when it comes to availability to drugs. A small percentage of diagnosed patients buy their own antiretroviral drugs. There are no accurate figures on their numbers, but according to key informants, there are very few of them. In the past years, the government has made efforts to increase the availability of centers which offer antiretroviral therapy services. So far (September 2007) 62 cities across 30 provinces have at least one center capable of rendering such services. In other words, all those who are identified to need treatment, meet the requirements mentioned in the country guideline for the launch of the treatment, and of course are willing to undergo treatment receive antiretroviral therapy free of charge.
**Indicator changes compared with previous report:** Although the number of individuals who receive antiretroviral therapy has more than doubled, because the growth in coverage has not been in pace with the increase in the number of individuals who need antiretroviral therapy, coverage has not changed significantly.

Low coverage of harm reduction programs as far as injecting drug users are concerned – viewed as a challenge in the previous report – has now improved. In fact harm reduction programs can now act as a link in the chain connecting injecting drug users with treatment programs. Limitations affecting the variety of regimens have now been eased.

**Recommendations for indicator improvement:**
1. Boosting the clinical information system
2. There are concerns among some pundits about the denominator, that is, estimates of the people who need antiretroviral therapy. They are worried the software is overestimating the need. Launching a study to ease their concerns could be of a lot of assistance.

**Challenges and suggestions for indicator improvement:**

**A. Challenges**
1. A considerable number of HIV-positive individuals have yet to be identified. Unavailability of most-at-risk groups, who account for a considerable percentage of HIV patients in the country, makes their identification all the more difficult.
2. Centers which render services are facing restrictions, on both quality and quantity fronts, in serving most-at-risk and high-risk populations.
3. The fact that doctors are uncertain about compliance of injecting drug users – who account for a great percentage of patients – with the regimens they prescribe dampens their willingness to prescribe medicine because such failure may result in drug resistance.
4. Unavailability of CD4-counting machines in some clinics offering antiretroviral drugs has resulted in less-than-perfect identification of patients who need antiretroviral therapy. Efforts have been made to ease this shortcoming. To that end, the coffers of the government and the Global Fund to Fight AIDS, Tuberculosis and Malaria have been tapped.

**B. Suggestions**
1. Expansion of drug maintenance treatment, using replacement drugs, when it comes to injecting drug users in order to boost their willingness to comply with the terms of the treatment; expansion of positive prevention programs; home care; and support for programs for people living with HIV/AIDS (PLHA)
2. Setting the stage for more legal and social support for most-at-risk groups to bolster their willingness to step forward for treatment, and striking more coordination between the judicial and executive branches of government
3. Advocacy to policymakers and the government to fully implement the second national strategic plan to control HIV/AIDS and materialize its stated objectives. Iran has already had a successful experience in this regard.

4. Training and encouraging NGOs and social groups, interested in cooperation with counselling centers on behavioral disease, to offer antiretroviral therapy.
Indicator 5. Prevention of Mother-to-Child Transmission

Definition of indicator: Percentage of HIV-positive pregnant women who received antiretroviral to reduce the risk of mother-to-child transmission

Purpose of indicator: To assess progress in preventing vertical transmission of HIV

Recommended method of measurement: For the numerator: programme monitoring tools. For the denominator: antenatal clinic surveillance or estimation model.

Method of measurement used by this report:
As for the numerator, inquiries were sent to health departments of 41 Universities of Medical Sciences and Health and Treatment Services, which are the sole provider of antiretroviral drugs in the health care system of the Islamic Republic of Iran. Estimates were used to determine the denominator.

Recommended method of measurement: The number of HIV-infected pregnant women who received antiretroviral (ARVs) to reduce the risk of mother-to-child transmission during the last 12 months is obtained from programme monitoring records compiled from patient records and registers.

Numerator: Number of HIV-infected pregnant women who received antiretroviral during the last 12 months to reduce mother-to-child transmission.

Denominator: Estimated number of HIV-infected pregnant women in the last 12 months

Method of measurement used by this report: The same as recommended

Value of indicator: It stood at 10% in 2007

Numerator: Between 21 September 2005 and 21 September 2006, 19 individuals received treatment for prevention of mother-to-child transmission. Two of them received a two-drug combination; 15 of them received a three-drug combination and the remaining two, who were at an advanced level of the disease, received antiretroviral therapy.

In the 12 months to September 21, 2007, 22 individuals received treatment for prevention of mother-to-child transmission. Four of them received a two-drug combination; 12 of them received a three-drug combination and the remaining six, who were at an advanced level of the disease, received antiretroviral therapy.

Denominator: Because there were no changes in the number of annual deliveries and surveillance showed no changes in HIV prevalence among pregnant women in 2004, that year's estimates (220 people) has been accepted as the estimated number of HIV-infected pregnant women in 2007.
Interpretation of indicator: In light of the fact that some 25% of children born to HIV-positive mothers are infected with the virus, adoption of suitable mechanisms to identify and render services to HIV-positive women who are pregnant seems necessary. There are concerns among some experts about the denominator, that is, estimates of pregnant women who are HIV-positive. They are worried the software has overestimated their numbers. All the individuals who are identified to need treatment receive antiretroviral therapy for free.

Indicator changes compared with previous report: There has been no remarkable change in the value of the indicator. However, recent integration of HIV risk factor evaluation into programs benefiting pregnant women is hoped to bolster the identification process of pregnant women who are infected with HIV.

Recommendations for indicator improvement:
1. General population: Continued serologic surveillance of pregnant women, particularly those who are married to HIV-positive men and women with high-risk behaviour
2. High-risk populations: The prevalence of HIV among pregnant women with high-risk behaviour should be determined through assessment and the launch of sentinel sites
3. Necessary measures should be taken to come up with more accurate estimates of high-risk women who are in the fertility age.

Strengths, challenges and suggestions for indicator improvement:
A. Strengths
1. Existence of strong health infrastructure including trained human resources and availability of free antiretroviral drugs in Iran
2. There are many prenatal care clinics across Iran
3. Integration of HIV risk factor evaluation into prenatal care programs

B. Challenges
1. A considerable percentage of HIV-positive women have yet to be identified. They are unaware of the infection. It is a cause for concern for the spouses of male injecting drug users and prisoners. The same is true about their children.
2. Insufficient sensitivity to HIV diagnosis in the mother-child care system
3. Existence of HIV testing the form of screening without the knowledge and consent of the patients who are not informed of the result of the tests

C. Suggestions
1. Centers which render HIV-related services should be boosted in order to facilitate visits by women to such centers.
2. Training and dissemination of information is needed to raise awareness and create motivation among most-at-risk and high-risk women (after the need is assessed).

3. Encouraging the private sector to take account of and implement risk factor assessment among pregnant women and offer voluntary counseling and testing in case the need for risk assessment is felt.
Indicator 6. Co-management of Tuberculosis and HIV Treatment

Definition of indicator: Percentage of estimated HIV-positive incident TB cases that received treatment for TB and HIV

Purpose of indicator: To assess progress in detecting and treating TB in people living with HIV

Recommended method of measurement: Facility ART registers and reports; programme monitoring tools and estimates

Method of measurement used by this report: As for the numerator, inquiries were sent to health departments of 41 Universities of Medical Sciences and Health and Treatment Services. As for the denominator, estimates were at play.

Recommended method of measurement: Programme data and estimates of incident TB cases in people living with HIV.

Numerator: Number of adults with advanced HIV infection who are currently receiving antiretroviral therapy in accordance with the nationally approved treatment protocol (or WHO/UNAIDS standards) and who were started on TB treatment (in accordance with national TB programme guidelines) within the reporting year.

Denominator: Estimated number of incident TB cases in people living with HIV

Method of measurement used by this report: The recommended method was used to work out the numerator. To determine an estimate of the incidence of TB among patients who are HIV-positive, the method detailed in the value of indicator was used.

Value of indicator: 20%

Numerator: Between September 2006 and September 21, 2007, 52 individuals received simultaneous treatment for HIV and TB. All of them were over 15 years of age. Two were women and the remaining 50 were men.

Denominator: A report on the web site of the World Health Organization suggests the number of HIV patients who have developed TB in Iran stands at 93. That is the number of cases reported.

In working out an estimate the following method was used: Estimates the number of people with HIV who needed antiretroviral therapy (8,730) and the fact that prevalence of TB in similar populations was 30% were taken into account. So were estimates of the incidence of TB among infected individuals who needed antiretroviral therapy (almost 10%). The final figure stood at 260.
**Interpretation of indicator:** Considering the fact that in Iran TB is a common presentation of advanced HIV infection, the ART coverage in this group seems considerable (20%) as compared with other patients with advanced HIV infection (9.5%).

**Recommendations for indicator improvement:**
- Bolstering the clinical information system and closer links between TB and AIDS programs

**Strengths, challenges and suggestions for indicator improvement:**

A. **Strengths**
- A very powerful TB registration system in the healthcare system and registration of identified HIV cases among TB patients in the system
- Fairly close relations between officials of TB and AIDS programs in universities
- Active measures to detect TB cases among HIV patients registered with counselling centers
- Active TB patient detection measures in prisons

B. **Challenges**
- Difficulties associated with diagnosis of active TB in HIV-positive individuals, especially in injecting drug users
- A considerable number of HIV-positive individuals in the country remain undetected. Lack of access to most-at-risk populations, who account for a considerable percentage of HIV-infected patients, makes their detection more difficult.
- Centers offering antiretroviral drugs to most-at-risk and high-risk populations face both qualitative and quantitative restrictions.
- Uncertainty about compliance with the terms of antiretroviral treatment among injecting drug users, who account for a great percentage of patients, dampens the willingness of doctors to prescribe medicine.

C. **Suggestions**
- Boosting the link between AIDS and TB control programs in universities and in the provinces
- Promoting the TB detection system and active TB patient detection among HIV-positive individuals
- Boosting the HIV detection system in most-at-risk populations, especially injecting drug users
- Expansion of harm reduction programs especially methadone maintenance treatment for injecting drug users in order to bolster their compliance
- Training TB coordinating physicians to better detect HIV
- Producing documents to update and indigenize HIV-TB manuals
Indicator 7. HIV Testing in the General Population

Definition of indicator: Percentage of women and men aged 15-49 who received an HIV test in the last 12 months and who know their results

Purpose of indicator: To assess progress in implementing HIV testing and counselling

Recommended method of measurement: Population-based surveys

Recommended method of measurement: Respondents are asked:
1. I don’t want to know the results, but have you been tested for HIV in the last 12 months?
2. If yes: I don’t want to know the results, but did you get the results of that test?

Numerator: Number of respondents aged 15–49 who have been tested for HIV during the last 12 months and who know their results.
Denominator: Number of all respondents aged 15–49

Value of indicator: In the absence of any study to examine these questions, calculation of the indicator is impossible.

Indicator changes compared with previous report: Because the indicator was not part of the previous report, it is impossible to assess the changes.

Recommendations for indicator improvement: Inclusion of these questions in surveillances conducted by some organizations such as the National Youth Organization is underway. They will be included in upcoming demographic and health surveys (DHS).

Strengths, challenges and suggestions for indicator improvement:
A. Challenges
- The number of centers which conduct HIV testing and offer counselling is not enough.
- Healthcare providers do not have enough knowledge about HIV testing and counselling.
- The number of centers which offer health services to most-at-risk and high-risk populations is not enough.
- The number of programs to raise awareness in the general population, especially most-at-risk groups such as the youth, women and students, is not enough.
- The stigma associated with the test and concerns about its confidentiality
- Low public risk perception
B. Suggestions
- Inclusion of HIV testing and counselling education in the training of health workers
- Boosting public risk perception
- Destigmatizing the test and protecting patients' rights.
**Indicator 8. HIV Testing in Most-at-risk populations**

**Definition of indicator:** Percentage of most-at-risk populations that have received an HIV test in the last 12 months and who know their results

**Purpose of indicator:** To assess progress in implementing HIV testing and counselling among most-at-risk populations

**Recommended method of measurement:** Behavioural surveillance or other special surveys

**Method of measurement used by this report:** According to Islamic Republic of Iran second National strategic plan to control HIV/AIDS (2007–2009) injecting drug users and sex workers account for the most important most-at-risk populations in the country. (11) Thus, efforts have been made to work out separate indicators for these two groups. Men who have sex with men (MSM) basically constitute another most-at-risk group. That is why efforts have been made to portray their conditions as well. Although serving time in prison does not amount to a high-risk behaviour in itself, in light of the role that prisons play in the HIV epidemic in Iran and in control programs as well, a separate indicator has been worked out for the prisoner population. However, one should take note of the fact that prisoners do not form a homogenous population. Rather, they are imprisoned on different grounds and many of them do not display high-risk behaviours. That means control programs for the prison population need different interventions proportionate to subgroups in the prison. In other words, such indicators are not comparable with those of other most-at-risk population groups.

For injecting drug users, the results of a biobehavioral survey conducted on a national scale in cooperation with research centers in 2007 were used. (31) The study was part of an integrated biobehavioral surveillance system for injecting drug users. In its first year, the study was implemented in areas covered by 13 Universities of Medical Sciences in 11 provinces which are amount to typical representation of the entire country. Time-location sampling method was used in the study. For female sex workers and men who have sex with men two different studies conducted by research centers in cooperation with the Diseases Management Center (MOHME) in Tehran in 2007 were used. (32, 33) As for prisoners, another study conducted in Tehran province prisons was used to work out the indicator.

**Recommended method of measurement:** Respondents are asked the following questions:
1. Have you been tested for HIV in the last 12 months?
If yes: 2. I don’t want to know the results, but did you receive the results of that test?
**Numerator:** Number of most-at-risk population respondents who have been tested for HIV during the last 12 months and who know the results.

**Denominator:** Number of most-at-risk population included in the sample

**Method of measurement used by this report:** The same as recommended.

**Value of indicator:** Figures for each most-at-risk population appear in Table 4. Table 5 features figures for prisoners.

### Table 4. Percentage of most-at-risk populations that have received an HIV test in the last 12 months and who know their results

<table>
<thead>
<tr>
<th>age group</th>
<th>Less than 25 year</th>
<th>25 year and more</th>
<th>All ages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N1 Person</td>
<td>N2 Person</td>
<td>Rate of index</td>
</tr>
<tr>
<td>Female sex worker (Tehran)</td>
<td>24</td>
<td>105</td>
<td>22.9%</td>
</tr>
<tr>
<td>MSM*</td>
<td>2</td>
<td>18</td>
<td>9.5%</td>
</tr>
<tr>
<td>IRAN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female IDU</td>
<td>3</td>
<td>18</td>
<td>16.7%</td>
</tr>
<tr>
<td>male IDU</td>
<td>66</td>
<td>405</td>
<td>16.3%</td>
</tr>
<tr>
<td>The whole of IDU</td>
<td>69</td>
<td>423</td>
<td>16.3%</td>
</tr>
<tr>
<td>Tehran</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female IDU</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>male IDU</td>
<td>10</td>
<td>76</td>
<td>13.2%</td>
</tr>
<tr>
<td>The whole of IDUs</td>
<td>10</td>
<td>78</td>
<td></td>
</tr>
</tbody>
</table>

N1 = Those who are under 25 year old and have received an HIV test in the last 12 months and know their results
N2 = Total number of those under 25 year old included in the sample
N3 = Those who are 25 year old or more and have received an HIV test in the last 12 months and know their results
N4 = Total number of those 25 year old or more included in the sample

* Regarding sampling procedure of the study, i.e. RDS, weighted number were use for calculating proportions

### Table 5. Percentage of prisoners that have received an HIV test in the last 12 months and who know their results

<table>
<thead>
<tr>
<th>age group</th>
<th>Less than 25 year</th>
<th>25 year and more</th>
<th>All ages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N1 Person</td>
<td>N2 Person</td>
<td>Rate of index</td>
</tr>
<tr>
<td>Prisoners (Male)</td>
<td>4</td>
<td>88</td>
<td>4.5%</td>
</tr>
</tbody>
</table>

Δ: Prisoners are not homogenous group and they sentenced for different offences, many of these offences not related to HIV high risk behaviours, so the data of prisoner are represented in a different table
N1: The number of the people who where under the age of 25 years and during the last 12 month they have been examined for HIV and they know its results.
N2: Total number of the people who where under the age 25 year and they have been asked.
It should be mentioned that in 2007 a total of 12,100 injecting drug users underwent HIV testing and counselling offered by Universities of Medical Sciences. (35) In 2004 when the previous report was being prepared the figure was no more than 8,500. (10) The figures for prisoners in 2006 and 2005 stood at 7,750 and 3,360 respectively.

**Interpretation of indicator:** A look at Table 4 suggests that the highest figure for most-at-risk groups belongs to male injecting drug users 25 years of age or older. This could be a result of harm reduction programs in society or in prisons.

After a limited study featuring 280 female sex workers, the responses of 280 of them were accepted in working out the indicator. It should be mentioned, however, the study just represented part of the sex workers community in Tehran and may not be generalized to other parts of the country.

Another point is that the study involving men who have sex with men included a very limited group who had mostly drug use to their record. Besides, most of them had no fixed abode. The sample community in the study was too small. That means the findings of the study may not generalize to others in the same group. Similarly, the data on prisoners is that of Tehran province and may not be used to represent other parts of the country.

**Indicator changes compared with previous report:** The current value of the indicator for IDUs (23%) shows marked improvement over the previous report (9.4%) Although the change in the indicator is promising, the extensive epidemic in this population requires more efforts. Considering the fact that the previous report lacked indicators on female sex workers, prisoners and people in the MSM category, it is not possible to draw a comparison between the two reports.

**Suggestions for indicator improvement:** Full application of biobehavioral surveillance to most-at-risk groups so that it could amount to representation of the issue on a national scale.

**Strengths, challenges and suggestions for indicator improvement:**

**A. Strengths**
- Cohesive studies involving most-at-risk populations have been conducted between the release of the previous report and this one.
- A fairly vast network has been set up to contact injecting drug users between the release of the previous report and this one.
- Prevention services such as voluntary counselling and testing (VCT) are free at these centers.
- This network can be used to access other most-at-risk populations.
- There is a vast laboratory network which can conduct the Elisa Test.
There exists a vast primary healthcare network which makes integration possible.

B. Challenges
- Limited access to high-risk groups thanks to legal, cultural and social limitations and of course the stigma associated with the disease
- Failure of the private sector to actively contribute to VCT services

C. Suggestions
- Conducting a study to pave the way for VCT marketing
- Launching a rapid test system to facilitate access to VCT in different centers
- Tapping into the potential of the private sector to increase the hours VCT could be on offer
- Encouraging health workers, both public and private, to snatch every opportunity to assess high-risk behaviours and refer the individuals displaying such behaviour to VCT centers
- Setting the stage for populations with high-risk behaviour to visit VCT centers
- Creating women’s harm reduction centers to facilitate access to HIV-infected women
- Supporting NGOs which deal with children and women of most-at-risk populations
- Offering insurance coverage and personal health registries for most-at-risk populations
- Reaching out to members of most-at-risk populations to contribute to the awareness campaign
Indicator 9. Most-at-risk Populations: Prevention Programme

Definition of indicator: Percentage of most-at-risk populations reached with HIV prevention programmes

Purpose of indicator: To assess progress in implementing HIV prevention programmes for most-at-risk populations

Recommended method of measurement: Behavioural surveillance or other special surveys

Method of Measurement used by this report: According to a Islamic Republic of Iran second National I strategic plan to control HIV/AIDS (2007–2009) injecting drug users and sex workers account for the most important most-at-risk populations in the country. (11) Thus, efforts have been made to work out separate indicators for these two groups. Men who have sex with men (MSM) basically constitute another most-at-risk group. That is why efforts have been made to portray their conditions as well. Although serving time in prison does not amount to a high-risk behaviour in itself, in light of the role that prisons play in the HIV epidemic in Iran and in control programs as well, a separate indicator has been worked out for the prisoner population. However, one should take note of the fact that prisoners do not form a homogenous population. Rather, they are imprisoned on different grounds and many of them do not display high-risk behaviours. That means control programs for the prison population need different interventions proportionate to subgroups in the prison. In other words, such indicators are not comparable with those of other most-at-risk population groups.

For injecting drug users, the results of a biobehavioral survey conducted on a national scale in cooperation with research centers in 2007 were used. (31) The study was part of an integrated biobehavioral surveillance system for injecting drug users. In its first year, the study was implemented in areas covered by 13 Universities of Medical Sciences in 11 provinces which are amount to typical representation of the entire country. Time-location sampling method was used in the study. For female sex workers and men who have sex with men two different studies conducted by research centers in cooperation with the Diseases Management Center (MOHME) in Tehran in 2007 were used. (32, 33) As for prisoners, another study conducted in Tehran province prisons was used to work out the indicator.

Recommended method of measurement: Respondents is asked the following questions:
1. Do you know where you can go if you wish to receive an HIV test?
2. In the last twelve months, have you been given condoms? (e.g. through an outreach service, drop-in centre or sexual health clinic)
Injecting drug users (IDUs) should be asked the following additional question:
3. In the last twelve months, have you been given sterile needles and syringes? (e.g. by an outreach worker, a peer educator or from a needle exchange programme)

**Numerator:** Number of most-at-risk population respondents who replied “yes” to both (all three for IDUs) questions.

**Denominator:** Total number of respondents surveyed

**Method of measurement used by this report:** The same as recommended

**Value of indicator:** Tables 6 and 8 feature the value of indicator for most-at-risk populations. Table 7 includes figures related to prisoners.

### Table 6. Proportion of most-at-risk population who know where they can go if they wish to receive an HIV test

<table>
<thead>
<tr>
<th>Age group</th>
<th>Less than 25 year</th>
<th>25 year and more</th>
</tr>
</thead>
<tbody>
<tr>
<td>The group who are exposed at the most risk</td>
<td>N1 Person</td>
<td>N2 Person</td>
</tr>
<tr>
<td>Female sex worker (Tehran)</td>
<td>60</td>
<td>122</td>
</tr>
<tr>
<td>MSM**</td>
<td>3</td>
<td>18</td>
</tr>
</tbody>
</table>

N1: The people who are under the age 25 year and know the place of HIV test.
N2: Total number of the people who where under the age 25 year and they have been asked.
N3: The number of the people who where 25 year or more and know the place of HIV test.
N4: Total number of the people who where 25 year or more and they have been asked.

* The data has been only for the existence group in the table.

### Table 7. Knowledge (informing) of the place of the presentation services of HIV among the prisoners.

<table>
<thead>
<tr>
<th>Age group</th>
<th>Less than 25 year</th>
<th>25 year and more</th>
</tr>
</thead>
<tbody>
<tr>
<td>The group who are expose at risk</td>
<td>N1 Person</td>
<td>N2 Person</td>
</tr>
<tr>
<td>Prisoners (Male)</td>
<td>107</td>
<td>365</td>
</tr>
</tbody>
</table>

Δ: Since the group of prisoners are not the same and with the different reasons they have been sent to prison that are not related to HIV, their data has been explained in separated table.
N1: The people who are under the age 25 year and know the place of HIV test.
N2: Total number of the people who where under the age 25 year and they have been asked.
N3: The number of the people who where 25 year or more and know the place of HIV test.
N4: Total number of the people who where 25 year or more and they have been asked.

** For earning (requiring) the relative (proportion) in this group it has been used weighted.
Table 8. Proportion of most-at-risk population who have been given condoms in the last twelve months

<table>
<thead>
<tr>
<th>The group under the exposure of the most at risk</th>
<th>N1 Person</th>
<th>N2 Person</th>
<th>Rate of index</th>
<th>N1 Person</th>
<th>N2 Person</th>
<th>Rate of index</th>
<th>All ages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tehran</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female IDU</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>7</td>
<td>10</td>
<td>70.0%</td>
<td>58.3%</td>
</tr>
<tr>
<td>male IDU</td>
<td>6</td>
<td>76</td>
<td>7.9%</td>
<td>124</td>
<td>600</td>
<td>20.7%</td>
<td>19.2%</td>
</tr>
<tr>
<td>The whole of IDUs (male &amp; female)</td>
<td>6</td>
<td>78</td>
<td>7.7%</td>
<td>131</td>
<td>700</td>
<td>18.7%</td>
<td>17.6%</td>
</tr>
</tbody>
</table>

*The data has been only for the existence group in the table.

N1: The number of the people who were under the age 25 year and they have been condom in the last 12 month.
N2: Total number of the people who were under the age 25 year and they have been asked.
N3: The number of the people who were 25 year or more and they have been condom in the last 12 month.
N4: Total number of the people who were 25 year or more and they have been asked.

Not all the above questions have been asked in these studies. For IDUs, in another study featuring injecting drug users in Tehran, questions on access to condom and sterile needles and syringes were asked. However, there are no figures available on respondents who answered both questions. Out of 38 female injecting drug users, 37 had access to condom. Out of 864 male injecting drug users, 820 had condom available to them. Seventeen of the 38 female injecting drug users said they have received sterile needles and syringes from healthcare centers. The figure for men stood at 299 out of the 864 surveyed.

Figures released by the Drug Control Headquarters suggest in the six months to September 21, 2007 a total of 2,940,000 sterile syringes have been distributed to injecting drug users.

It should be mentioned that a major pillar of harm reduction programs for injecting drug users in the Islamic Republic of Iran is Methadone Maintenance Treatment. As of September 21, 2007, a total of 57,000 injecting drug users had been receiving methadone maintenance treatment offered by Universities of Medical Sciences, the Welfare Organization, the Prisons' Organization and private clinics. According to the previous report, the figure stood at 4,300 (10) in 2004. Thus, it has registered a 13 folds increase.

**Interpretation of indicator:** In a limited study featuring 280 female sex workers, the responses of 280 were accepted in working out the indicator. However, it should be mentioned that the study just represented part of the sex workers community in Tehran and may not be generalized to other parts of the country.

Another point is that the study involving men who had sex with other men (32) included a very limited group who mostly had drug use to their record. Besides, most of them had not fixed abode. The sample community in the
study was too small. That means generalization of the findings of the study to others in the same group may not be advisable. Similarly, the data on prisons is that of facilities in Tehran and may not be used to represent other parts of the country.

**Indicator changes compared with previous report:** In light of the fact that the previous report lacked indicators as far as female sex workers and people in the MSM category were concerned, it is not possible to draw a comparison between the two reports. The previous report suggested the figure among injecting drug users stood at 11.4%. (10) In that report, the figure was based on HIV testing; this report, however, calculations were made for the 12-month period leading to the release of the report. The fact that the figure in this report has risen to 17.6% is indicative of a relative improvement.

**Recommendations for indicator improvement:** Full application of biobehavioral surveillance to most-at-risk groups so that it could amount to representation of the issue on a national scale.

**Strengths, challenges and suggestions for indicator improvement:**

**A. Strengths**
- Cohesive studies involving most-at-risk populations have been conducted between the release of the previous report and this one
- A fairly vast network has been set up to contact injecting drug users between the release of the previous report and this one
- Prevention services such as voluntary counselling and testing (VCT) are free in these centers
- This network can be used to access other most-at-risk populations.
- There is a vast laboratory network which can conduct the Elisa Test.
- There exists a vast primary healthcare network which makes integration possible.

**B. Challenges**
- Limited access to high-risk groups thanks to legal, cultural and social limitations and stigma
- Failure of the private sector to actively contribute to VCT services

**C. Suggestions**
- Conducting a study to pave the way for VCT marketing
- Tapping into the potential of the private sector to increase the hours VCT could be on offer
- Encouraging health workers, both public and private, to snatch every opportunity to assess high-risk behaviours and refer the individuals displaying such behaviour to VCT centers
- Setting the stage for populations with high-risk behaviour to visit VCT centers
- Supporting NGOs which deal with children and women of most-at-risk populations
- Reaching out to members of most-at-risk populations to contribute to the awareness campaign
- Making voluntary counselling and testing a routine practice and offering preventive services in clinics to most-at-risk individuals
- Offering prevention services to those who visit public and private rehabs
- Expansion of drop-in centers and outreach teams
Indicator 10. Life Skills-based HIV Education in schools

Definition of indicator: Percentage of schools that provided life skills-based HIV education in the last academic year

Purpose of indicator: To assess progress towards implementation of life skills-based HIV education in all schools recommended

Measurement Method: School survey or education programme review

Recommended method of measurement: Principals/heads of a nationally-representative sample of schools (to include both private and public schools) are briefed on the meaning of life skills-based HIV education and then are asked the following question: Within the last academic year, did your school provide at least 30 hours of life skills training to each grade?

Numerator: Number of schools that provided life skills-based HIV education in the last academic year.
Denominator: Number of schools surveyed

Method of measurement used by this report:
Due to the centralized learning programs in the educational system of Iran and access to the data through the relevant ministry, there was no need for a separate screening. The report benefits from the indicators set for the monitoring assessment of Life Skills Program that is implemented at schools. The Bureau for Health and Fitness of the Ministry of Education and the Bureau of Prevention of Social Vulnerabilities of the Social Welfare Organization that in charge of implementation of Life Skills at schools were corresponded and requested to share their data on the program at pre-school, primary school, and junior and senior high school in the previous year.

Value of Indicator
The review of the curriculum showed that no specific HIV education is included in Life Skills program at present. However, the following data was extracted:
In the academic year of 2006-2007, 300,000 students (7.6%) out of total 3,938,661 junior high school students took part in the Life Skills program. During the same year, 58,000 pre-school students (8.2%) out of total 582,785 students took part in the Life Skills Program.
At present, Life Skills Program is not offered at high school level. Yet, there is a six-hour optional extra curriculum for the first grade of high school students. It is noteworthy to know that 90% of all first graders passed the course.

Interpretation and Analysis
The Life Skills course include training on ten skills of awareness, empathy, inter-personal communication, effective communication, creative thoughts, critical thoughts, problem solving, decision making, coping with excitement, and coping with stress (especially during puberty). The program is obviously not designed for HIV education, but it is likely that the teachings of the course
increase the self confidence of children and strengthens their skills of abstaining from things, such as peer group pressure, and helps them to say "no". Consequently, the course can play a role in preventing HIV transmission.

**Change in Indicator:** Life Skills program started at primary and junior high schools in 1998. It extended its scope to more schools and covered more grades of schooling. However, this process should speed up. It is also recommended to include HIV education in the program.

**Strength, Weaknesses, Challenges, and Recommendations for Indicator Improvement:**

**A. Strengths**
Beginning to offer the course to students at some schooling grades
Training about 60,000 teacher on HIV and skill-based teaching

**B. Weaknesses**
Insufficient coverage of the course
Lack of direct education on the ways to prevent sexually transmission of HIV

**C. Challenges**
Concerns of some authorities in charge of education about the probable least desired effects of training on prevention of sexually transmitted diseases
Insufficient knowledge of parents on the necessity of skill-based training and their little role in supporting such training

**Recommendations for Indicator Improvement:**
Advocate for attracting the comprehensive support of policy makers, officials, and parents for complete implementation of Life Skills Program at all levels of schools;
Offer HIV education under the supervision of the Ministry of Education.
Knowledge and Behaviour indicators
Indicator 11. Young People: Knowledge about HIV Prevention

Definition of indicator: Percentage of young women and men aged 15–24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission.

Purpose of indicator: To assess progress towards universal knowledge of the essential facts about HIV transmission.

Recommended measurement method: Population-based surveys.

Measurement method used by this report: At present, there are no national-scale surveys to evaluate the knowledge of the youth on HIV prevention. Therefore, 45 articles, reports and studies conducted in 2004-2007 were reviewed, out of which 17 were analyzed. The findings were then integrated through meta-analysis methods. Furthermore, the data on different years were compared and integrated with the more recent studies to find out the trend of changes.

Recommended method of measurement: This indicator is constructed from responses to the following set of prompted questions:
1. Can the risk of HIV transmission be reduced by having sex with only one uninfected partner who has no other partners?
2. Can a person reduce the risk of getting HIV by using a condom every time they have sex?
3. Can a healthy-looking person have HIV?
4. Can a person get HIV from mosquito bites?
5. Can a person get HIV by sharing food with someone who is infected?

Numerator: Number of respondents aged 15-24 years who gave the correct answer to all five questions.

Denominator: Number of all respondents aged 15–24.

Method of measurement used by this report: It was attempted to review studies that included responses to above questions. Since there were a restricted number of studies with a focus on 15-24 age groups, the meta-analysis extended the range to 15-45.

Value of Indicator: Value of indicator is showed in Table 9.
Table 9. Knowledge of general population about prevention of HIV (15-45 year)

<table>
<thead>
<tr>
<th>Title</th>
<th>number of individuals</th>
<th>number of correct answers (person)</th>
<th>Total number of people who have been under the question (person)</th>
<th>Proportion of correct knowledge (in meta analysis)</th>
<th>Percent of confidence interval (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge about reduced risk of HIV transmission by having sex with only one uninfected partner who has no other partners</td>
<td>NAα</td>
<td>NAα</td>
<td>NAα</td>
<td>NAα</td>
<td>NAα</td>
</tr>
<tr>
<td>Knowledge about reduced risk of getting HIV by using a condom every time they have sex</td>
<td>female 1159</td>
<td>2088</td>
<td>55.5</td>
<td>65.3 – 45.6</td>
<td>62.9 – 47.3</td>
</tr>
<tr>
<td></td>
<td>male 1279</td>
<td>2479</td>
<td>51.6</td>
<td>59.9 – 44.3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total 2738</td>
<td>4567</td>
<td>55.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Knowledge about possibility of healthy-looking of a person with HIV</td>
<td>female 4124</td>
<td>5129</td>
<td>55.5</td>
<td>89.4 – 71.4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>male 4463</td>
<td>5983</td>
<td>74.6</td>
<td>86.3 – 62.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total 8587</td>
<td>11112</td>
<td>76.7</td>
<td>86.0 – 67.0</td>
<td></td>
</tr>
<tr>
<td>Knowledge about impossibility of getting HIV from mosquito bites</td>
<td>female 3003</td>
<td>4721</td>
<td>63.6</td>
<td>72.0 – 55.2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>male 2849</td>
<td>4724</td>
<td>60.3</td>
<td>69.5 – 51.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total 5852</td>
<td>9445</td>
<td>61.1</td>
<td>69.9 – 52.3</td>
<td></td>
</tr>
<tr>
<td>Knowledge about impossibility of getting HIV by sharing food with someone who is infected</td>
<td>female 4032</td>
<td>5009</td>
<td>78.2</td>
<td>84.6 – 71.9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>male 4179</td>
<td>5351</td>
<td>74.1</td>
<td>83.4 – 64.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total 8211</td>
<td>10360</td>
<td>76.4</td>
<td>84.0 – 68.8</td>
<td></td>
</tr>
<tr>
<td>correct answer to all five questions</td>
<td>NAα</td>
<td>NAα</td>
<td>NAα</td>
<td>NAα</td>
<td>NAα</td>
</tr>
</tbody>
</table>

α: Not available

With respect to the year of the publication and giving more value to the most recent studies, the general knowledge on the effect of consistent and correct use of condom as means of HIV prevention has been increased. On the other hand, there is a decrease in the number of the youth that assume sting of a mosquito can transmit HIV. There were no remarkable changes in the perception of the youth that HIV is not transmitted through eating, and about the possibility of people living with HIV are safe.

Interpretation and Analysis: The meta-analysis included all studies conducted nationwide. As a result, the findings can represent the status of basic knowledge about HIV at the national scale.

Change in Indicator: It was not, yet, possible to measure this indicator in the previous report and the presented statistics had just covered the City of
Tehran. However, the current meta-analysis indicates that the awareness on the positive effect of condomization on HIV prevention has increased in recent years. Of course, it is still far from being satisfactory. Other basic knowledge about HIV has not improved and there is still a substantial gap with the desired figures.

**Recommendations for Indicator Improvement:** It is recommended to undertake frequent observing measures among the target groups or include relevant questions in the observing current observing processes followed by some organizations, such as the National Youth Organization.

**Strengths, Weaknesses, Challenges, and Recommendations for Indicator Improvement**

**A. Strengths**
- High rate of literacy countrywide (over 80%)
- Existence of nationwide organizations for the youth, for instance the Basij and the Red Crescent Organization, the Youth Branch
- Religious edicts (fatwa) issued by many high rank clerics authorizing the education on HIV prevention measures (39)

**B. Challenges**
- Number of young population
- Negative attitude of some policy makers and decision makers about offering education on HIV prevention measures
- Stigmatizing attitudes of mass media towards raising awareness on preventive measures of sexually transmission of HIV

**Recommendations for Indicator Improvement:**
- Plan advocacy programs for attracting the support of policy makers and decision makers to authorize for education on preventive measures of sexually transmission of HIV
- Offer skill-based training at schools, as mentioned above (Indicator 10)
- Make use of mass media
- Offer frequent information package
- Utilize peer group education
Indicator 12. Most-at-risk populations: knowledge about HIV Prevention

Definition of indicator: Percentage of most-at-risk populations who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission.

Purpose of indicator: To assess progress in building knowledge of the essential facts about HIV transmission among most-at-risk populations.

Recommended method of measurement: Special behavioural surveys such as the Family Health International Behavioural Surveillance Survey for most-at-risk populations.

Measurement method used by this report:
PART A
Recommended method of measurement: Respondents are asked the following five questions:
1. Can having sex with only one faithful, uninfected partner reduce the risk of HIV transmission?
2. Can using condoms reduce the risk of HIV transmission?
3. Can a healthy-looking person have HIV?
4. Can a person get HIV from mosquito bites?
5. Can a person get HIV by sharing a meal with someone who is infected?

Numerator: Number of most-at-risk population respondents who gave the correct answers to all five questions.
Denominator: Number of most-at-risk population respondents who gave answers, including “don’t know”, to all five questions.

Method of measurement used in this report: The same as recommended.

Value of Indicator: Tables 10 to 15 represent the value of indicators for the high risk groups.
<table>
<thead>
<tr>
<th>Title</th>
<th>Less than 25 year</th>
<th>25 year and more</th>
<th>The proportion of correct answer in all ages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge about reduced risk of HIV transmission be by having sex with only one uninfected partner who has no other partners</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The number of correct answer (person)</td>
<td>Total number of answerer (person)</td>
<td>The proportion of correct answer</td>
</tr>
<tr>
<td>Knowledge about reduced risk of getting HIV by using a condom every time they have sex</td>
<td>45</td>
<td>122</td>
<td>36.9%</td>
</tr>
<tr>
<td>Knowledge about possibility of healthy-looking of a person with HIV</td>
<td>83</td>
<td>122</td>
<td>68.0%</td>
</tr>
<tr>
<td>Knowledge about impossibility of getting HIV from mosquito bites</td>
<td>51</td>
<td>122</td>
<td>41.8%</td>
</tr>
<tr>
<td>Knowledge about impossibility of getting HIV by sharing food with someone who is infected</td>
<td>75</td>
<td>122</td>
<td>61.5%</td>
</tr>
<tr>
<td>Answer to all five questions</td>
<td>12</td>
<td>122</td>
<td>9.8*</td>
</tr>
</tbody>
</table>
Table 11: Knowledge of the IDUs in Iran about HIV prevention

<table>
<thead>
<tr>
<th>Title</th>
<th>Less than 25 year</th>
<th>25 year and more</th>
<th>proportion of correct answer in all ages and both gender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(person)</td>
<td>(person)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
<td>Male</td>
</tr>
<tr>
<td>Knowledge about reduced risk of HIV transmission be by having sex with only one uninfected partner who has no other partners</td>
<td>299</td>
<td>12</td>
<td>405</td>
</tr>
<tr>
<td>Knowledge about reduced risk of getting HIV by using a condom every time they have sex</td>
<td>324</td>
<td>12</td>
<td>405</td>
</tr>
<tr>
<td>Knowledge about possibility of healthy-looking of a person with HIV</td>
<td>289</td>
<td>9</td>
<td>405</td>
</tr>
<tr>
<td>Knowledge about impossibility of getting HIV from mosquito bites</td>
<td>141</td>
<td>9</td>
<td>405</td>
</tr>
<tr>
<td>Knowledge about impossibility of getting HIV by sharing food with someone who is infected</td>
<td>235</td>
<td>13</td>
<td>405</td>
</tr>
<tr>
<td>answer to all five questions</td>
<td>67</td>
<td>1</td>
<td>405</td>
</tr>
</tbody>
</table>
Table 12: The knowledge of male prisoners about HIV prevention

<table>
<thead>
<tr>
<th>Title</th>
<th>Less than 25 year</th>
<th>25 year and more</th>
<th>The proportion of correct answer in all ages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge about reduced risk of HIV transmission be by having sex with only one uninfected partner who has no other partners</td>
<td>292 451 64.7%</td>
<td>611 853 71.6%</td>
<td>69.2%</td>
</tr>
<tr>
<td>Knowledge about reduced risk of getting HIV by using a condom every time they have sex</td>
<td>314 451 69.6%</td>
<td>643 853 75.4%</td>
<td>73.3%</td>
</tr>
<tr>
<td>Knowledge about possibility of healthy-looking of a person with HIV</td>
<td>289 451 64.1%</td>
<td>651 853 73.3%</td>
<td>72.1%</td>
</tr>
<tr>
<td>Knowledge about impossibility of getting HIV from mosquito bites</td>
<td>139 451 30.8%</td>
<td>291 853 34.1%</td>
<td>33.0%</td>
</tr>
<tr>
<td>Knowledge about impossibility of getting HIV by sharing food with someone who is infected</td>
<td>217 451 48.1%</td>
<td>504 853 59.1%</td>
<td>55.3%</td>
</tr>
<tr>
<td>answer to all five questions</td>
<td>68 451 15.1%</td>
<td>162 853 20.0%</td>
<td>17.6%</td>
</tr>
</tbody>
</table>

Δ: Since the group of prisoners are not the same and with the different reasons they have been sent to prison that are not related to HIV, their data has been explained in separated table.
Table 13: the knowledge of MSM about HIV prevention

<table>
<thead>
<tr>
<th>Title</th>
<th>Less than 25 year</th>
<th>25 year and more</th>
<th>The proportion of correct answer in all ages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The number of correct answer (person)</td>
<td>Total number of answerer (person)</td>
<td>The proportion of correct answer (person)</td>
</tr>
<tr>
<td>Knowledge about reduced risk of HIV transmission by having sex with only one uninfected partner who has no other partners</td>
<td>13</td>
<td>18</td>
<td>66.8%</td>
</tr>
<tr>
<td>Knowledge about reduced risk of getting HIV by using a condom every time they have sex</td>
<td>12</td>
<td>18</td>
<td>53.3%</td>
</tr>
<tr>
<td>Knowledge about possibility of healthy-looking of a person with HIV</td>
<td>10</td>
<td>18</td>
<td>45.1%</td>
</tr>
<tr>
<td>Knowledge about impossibility of getting HIV from mosquito bites</td>
<td>5</td>
<td>18</td>
<td>22.1%</td>
</tr>
<tr>
<td>Knowledge about impossibility of getting HIV by sharing food with someone who is infected</td>
<td>6</td>
<td>18</td>
<td>42.2%</td>
</tr>
<tr>
<td>answer to all five questions</td>
<td>2</td>
<td>18</td>
<td>4.5%</td>
</tr>
</tbody>
</table>

* For earning (requiring) the relative (proportion) in this group it has been used weighted.
### Table 14: the knowledge of IDU in Tehran about HIV prevention

<table>
<thead>
<tr>
<th>Title</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>Male</th>
<th>Female</th>
<th>The proportion of correct answer in all ages and both gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge about reduced risk of HIV transmission be by having sex with only one uninfected partner who has no other partners</td>
<td>60</td>
<td>2</td>
<td>76</td>
<td>2</td>
<td>80.0</td>
<td>100%</td>
<td>516</td>
<td>9</td>
<td>600</td>
<td>10</td>
<td>86.0, 90.0, 85.3%</td>
</tr>
<tr>
<td>Knowledge about reduced risk of getting HIV by using a condom every time they have sex</td>
<td>66</td>
<td>1</td>
<td>76</td>
<td>2</td>
<td>86.4</td>
<td>50.0%</td>
<td>529</td>
<td>10</td>
<td>600</td>
<td>10</td>
<td>88.2, 100%, 88.1%</td>
</tr>
<tr>
<td>Knowledge about possibility of healthy-looking of a person with HIV</td>
<td>59</td>
<td>1</td>
<td>76</td>
<td>2</td>
<td>77.3</td>
<td>50.0%</td>
<td>478</td>
<td>9</td>
<td>600</td>
<td>10</td>
<td>79.7, 90.0%, 79.5%</td>
</tr>
<tr>
<td>Knowledge about impossibility of getting HIV from mosquito bites</td>
<td>34</td>
<td>0</td>
<td>76</td>
<td>2</td>
<td>44.7</td>
<td>0%</td>
<td>394</td>
<td>6</td>
<td>600</td>
<td>10</td>
<td>65.7, 6%, 62.2%</td>
</tr>
<tr>
<td>Knowledge about impossibility of getting HIV by sharing food with someone who is infected</td>
<td>47</td>
<td>2</td>
<td>76</td>
<td>2</td>
<td>61.8</td>
<td>100%</td>
<td>391</td>
<td>9</td>
<td>600</td>
<td>10</td>
<td>65.2, 90.0%, 62.3%</td>
</tr>
<tr>
<td>answer to all five questions</td>
<td>13</td>
<td>0</td>
<td>76</td>
<td>2</td>
<td>17.1</td>
<td>0%</td>
<td>186</td>
<td>5</td>
<td>600</td>
<td>10</td>
<td>31.0, 50.0%, 29.3%</td>
</tr>
</tbody>
</table>

∆: Due to the fact the detainees do not belong to a consistent social group and some of them are arrested for different reasons not related to HIV, the data relevant to them are showed in a separate table.

* The ratio was calculated by using weighed numbers, with respect to RDS.
Interpretation and Analysis
A survey, with a restricted scope, was conducted among 287 female sex workers. The responses of 280 were acceptable, regarding the indicators set for this survey. It should be noted that the results of this study, which covers only a part of female sex workers in Tehran, cannot be applied to the whole country. In addition, the target group in the survey on MSM was too restricted and specific; the majority had a history of drug use and a substantial number of them lacked in a permanent place for living. Moreover, the sample group was too small to apply the finding of the survey to all MSM. The same is true about the status of detainees. The data just covered Tehran province and it may not be applicable to other parts of the country. The study made it known that injecting drug users and detainees know more than other members of high risk groups about the HIV prevention measures. This can be due to implementation of HIV prevention programs that started in country in recent years. The sample group also knows more about general ways of HIV transmission than knowing the fact HIV is not transmitted through ordinary contacts. Such a gap is possibly rooted in stigma and discrimination against people living with HIV.

Change in Indicator
The previous report excluded the indicators on female sex workers and MSM. At that time there was no comprehensive survey measuring this indicator among injecting drug users. However, during this period, the comparison of knowledge about HIV prevention among drug users in Tehran indicates a significant improvement.

Recommendations for Indicator Improvement
It is recommended to undertake frequent observing measures for target groups.

Strengths, Weaknesses, Challenges, and Recommendations for Indicator Improvement
A. Strengths
Consistent surveys on the target groups of high risk population during the reporting periods
A relatively extensive network to keep in touch with the injecting drug users in the same period
Access to other high risk groups thought the above mentioned network
A wide-ranging network of primary health care that provides the ground for integration

B. Challenges
Limited access to high risk groups, due to current legal, cultural, and social restrictions and stigma and discrimination against people living with HIV
C. Recommendations
Attract the support of community based institutions, especially those working with women and children, to provide services for high risk groups
Involve the members of high risk groups in raising awareness and peer group education processes
Increase the number of DICs and mobile teams
Involve peer groups in facilitating access to target groups and in offering HIV prevention education
Implement programs with mobile teams
Indicator 13. Sex before the age of 15

Definition of indicator: Percentage of young women and men aged 15–24 who have had sexual intercourse before the age of 15
An alternative indicator as "percentage of young women and men aged 20–24 who report their age at sexual initiation as under 18 years" can be adopted.

Purpose of indicator: To assess progress in increasing the age at which young women and men aged 15–24 first have sex

Recommended measurement method: Population-based surveys

Method of measurement used by this report: reviewing available studies

Recommended method of measurement: Respondents are asked whether or not they have ever had sexual intercourse and, if yes, they are asked: How old were you when you first had sexual intercourse for the first time?
Numerator: Number of respondents (aged 15–24 years) who report the age at which they first had sexual intercourse as under 15 years.
Denominator: Number of all respondents aged 15–24 years.

Method of measurement used by this report:
To work out the indicator, relevant studies conducted across the country, were first identified. Then lead researchers were contacted and the main questions of the questionnaire were put to them. There were no studies featuring exactly the same questions. However, one survey featuring single boys and single girls aged between 15 and 29 had the best data. The random sampling study conducted in seven provinces in 2006 was used to work out the indicator. In the study the entire country was divided into seven zones on the basis of cultural and social parameters. From each zone one province was chosen. In all there were more than 7,000 respondents. (40)

Value of indicator: The study suggested 15.9% of men and 4.4% of women had sexual intercourse before the age of 19. (Table 13)

<table>
<thead>
<tr>
<th>Age</th>
<th>15 – 19 year</th>
<th>20 – 24 year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sex</td>
<td>History of the sexual intercourse</td>
<td>Total number of sample</td>
</tr>
<tr>
<td>Male</td>
<td>177</td>
<td>1114</td>
</tr>
<tr>
<td>female</td>
<td>53</td>
<td>1188</td>
</tr>
</tbody>
</table>

Interpretation of indicator: In light of the fact that the study surveyed single youngsters, it cannot be generalized to the entire population. Yet, the figures are alarming. Some other studies across the country have produced similar results. According to another study, 1.4% of female students aged 20-24
attending a university in Tehran said they had sex before the age of 15. The figure rose to 6.9% when it came to sex before the age of 18. Another study led by the same researcher suggested 15.1% of boys aged between 15 and 18 years, had sexual intercourse before the age of 15. The figure rises to 27.5% when it comes to sex before the age of 18.

**Indicator changes compared with previous report:** Because the previous report contained no exact figures in this regard, drawing a comparison is impossible.

**Suggestions for indicator improvement:**
Designing population-based measurements by relevant organizations can paint a more accurate picture of this in the years to come. Until new studies are organized under new arrangements, one-off studies conducted here and there, should include questions which produce an accurate response as far as this indicator is concerned. Besides, it is advised that a data bank featuring the results of various studies be set up at the Ministry of Health and Medical Education to avert waste of time in accessing the results of such studies.

**Strengths, challenges and suggestions for indicator improvement:**

**A. Strengths**
- Religious beliefs, traditions and social relations can help drive a certain extent of abstinence in society.

**B. Challenges**
1. Officials show resistance when it comes to safe sex education.
2. Life skills education has yet to be scaled up.
3. There exists a sense denial when it comes to problems threatening the youth.
4. The population is fairly young and there are extensive communications which can affect the sexual behaviour of the youth.

**C. Suggestions**
1. Offering skill-based education
2. Making use of mass media
3. Working out programs to promote abstinence before marriage, encourage youngsters to get married after reaching the legal age, and promote being faithful among those married
Indicator 14. Higher-risk sex

Definition of indicator: Percentage of women and men aged 15–49 who have had sexual intercourse with more than one partner in the last 12 months

Purpose of indicator: To assess progress in reducing the percentage of people who have higher-risk sex

Recommended method of measurement: Population-based surveys

Method of measurement used by this report: reviewing available studies

Recommended method of measurement: Respondents are asked whether or not they have ever had sexual intercourse and, if yes, they are asked: In the last 12 months, how many different people have you had sexual intercourse with?
Numerator: Number of respondents aged 15–49 who have had sexual intercourse with more than one partner in the last 12 months.
Denominator: Number of all respondents aged 15–49

Method of measurement used by this report:
To work out the figures for this indicator, studies which featured the same questions as the indicator’s were first chosen. Then the lead researchers who had access to the main data bank of the study were contacted and questions were put to them. Then the indicator was measured. In other words, the recommended method has been used but the tools have not been the same as the ones recommended.

Value of indicator:
There is no systematic data to work out the indicator. A few small studies have been conducted in this regard. In one such study conducted in a Tehran district in 2004, out of 422 respondents who had sex in the 12 months prior to the study, 110 (21.1%) said they had had more than one partner in that period. (43) Another study featuring male students of a university in Tehran in 2006 (44) showed that 12.3% of students under 19 years of age (14 out of 114), 39% of students aged 20-24 (116 out of 295) and 28.6% of students over 25 years of age (4 out of 14) had sex with more than one partner in their lifetime.

Interpretation of indicator:
The study was conducted in a single district of Tehran and cannot be used to represent the whole country or even metropolitan Tehran. Still, these figures even for a single district are alarming.
Indicator changes compared with previous report:
The fact that there was no value for the indicator in the previous report makes it impossible to draw a comparison between the two.

Suggestions for indicator improvement:
Designing new population-based measurements by relevant organizations can paint a more accurate picture of this issue in the years to come. Until new studies are organized under fresh arrangements, one-off studies conducted here and there should include questions which produce an accurate response as far as this indicator is concerned. Besides, it is advisable that a data bank featuring the results of various studies be set up at the Ministry of Health and Medical Education to avert waste of time in accessing the results of such studies.

Strengths, challenges, and suggestions for indicator improvement:
A. Strengths:
- Religious beliefs, traditions and social relations can help secure a certain extent of abstinence in society.

B. Challenges:
1. Officials show resistance when it comes to safe sex education.
2. Training in life skills has yet to grow.
3. The population is fairly young and there are many systems which can affect the sexual behaviour of the youth.

C. Suggestions:
1. Offering skill-based education
2. Making use of mass media
3. Working out programs to promote abstinence before marriage, encourage youngsters to get married after reaching the legal age, and promote being faithful among those married.
Indicator 15. Condom Use during Higher-risk sex

**Definition of indicator:** Percentage of women and men aged 15–49 who had more than one sexual partner in the past 12 months reporting the use of a condom during their last sexual intercourse

**Purpose of indicator:** To assess progress towards preventing exposure to HIV through unprotected sex with non-regular partners

**Recommended method of measurement:** Population-based surveys

**Method of measurement used by this report:** reviewing available studies

**Recommended method of measurement:** Respondents are asked whether or not they have ever had sexual intercourse and, if yes, they are asked:
1. In the last 12 months, how many different people have you had sexual intercourse with?
If more than one, the respondent is asked:
2. Did you or your partner use a condom the last time you had sexual intercourse?

**Numerator:** Number of respondents (aged 15–49) who reported having had more than one sexual partner in the last 12 months who also reported that a condom was used the last time they had sex.

**Denominator:** Number of respondents (15–49) who reported having had more than one sexual partner in the last 12 months

**Method of measurement used by this report:**
To work out the figures for this indicator, studies which featured the same questions as the indicator’s were first chosen. Then the lead researchers who had access to the main data bank of the study were contacted and questions were put to them. Then the indicator was measured. In other words, the recommended method has been used but the tools have not been the same as the ones recommended.

**Value of indicator:**
Unfortunately there is no comprehensive measurement in this field and working out the indicator is impossible. The 2004 study mentioned in the previous indicator (featuring 110 respondents who had sex with more than one partner in the 12 months leading to the study) suggested 43.6% of them had used a condom during their last intercourse. (43)

**Interpretation of indicator:** The figures cannot be used to represent the whole country or even metropolitan Tehran.
**Indicator changes compared with previous report:**
The fact that there was no value for the indicator in the previous report makes it impossible to draw a comparison between the two.

**Suggestions for indicator improvement:**
Designing new population-based measurements by relevant organizations can paint a more accurate picture of this issue in the years to come. Until new studies are organized under fresh arrangements, one-off studies conducted here and there should include questions which produce an accurate response as far as this indicator is concerned. Besides, it is advisable that a data bank featuring the results of various studies be set up at the Ministry of Health and Medical Education to avert waste of time in accessing the results of such studies.

**Strengths, challenges, and suggestions for indicator improvement:**

**A. Strengths:**
1. Religious beliefs, traditions and social relations can help secure a certain extent of abstinence in society.
2. There is enormous potential at various institutions with unfettered access to different parts of the country to educate youngsters aged 15-24 as to how HIV can be avoided.
3. Public health centers offer condoms free of charge.
4. Several reproductive health programs are underway across the country. These programs make it possible to integrate prevention programs into the system.

**B. Challenges:**
1. Officials show resistance when it comes to safe sex education.
2. Training in life skills has yet to grow.
3. The population is fairly young and there are extensive communications which can affect the sexual behaviour of the youth.
4. Access to condom at certain ages by certain groups could be difficult and associated with stigma.
5. Some people take a negative view of condom use; some know little about condom and cannot use it properly.

**C. Suggestions:**
1. Offering skill-based education
2. Making use of mass media
3. Ready availability of condom along with training for the target population
4. Engaging the institutions which deal with youth affairs
Indicator 16. Sex Workers: Condom Use

**Definition of indicator:** Percentage of female and male sex workers reporting the use of a condom with their most recent client

**Purpose of indicator:** To assess progress in preventing exposure to HIV among sex workers through unprotected sex with clients

**Recommended method of measurement:** Special surveys, including the Family Health International Behaviour Surveillance Survey for sex workers

**Method of measurement used by this report:**
A 2007 study featuring female sex workers has been used.

**Recommended method of measurement:** Respondents are asked the following question:
Did you use a condom with your most recent client in the last 12 months?
**Numerator:** Number of respondents who reported that a condom was used with their last client in the last 12 months.
**Denominator:** Number of respondents who reported having commercial sex in the last 12 months

**Method of measurement used by this report:** The same as recommended

**Value of indicator:**
The number of respondents in the survey stood at 280. Of that figure 154 (55%) used a condom in sexual intercourse with their last client. (33) Table 16

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Less than 25 year</th>
<th>25 year and more</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Using of condom</td>
<td>Total proportion</td>
</tr>
<tr>
<td>Female sex workers</td>
<td>72</td>
<td>122</td>
</tr>
</tbody>
</table>

As it was mentioned earlier, there are no figures available on male sex workers who have used a condom in their most recent intercourse. That means it is impossible to make any comment.

**Interpretation of indicator:**
Because the study solely featured female sex workers in Tehran, it cannot be generalized to the whole country.
Indicator changes compared with previous report:
The fact that there was no value for the indicator in the previous report makes it impossible to draw a comparison between the two.

Suggestions for indicator improvement:
Conducting periodic surveillances among target populations

Strengths, challenges, and suggestions for indicator improvement:

A. Strengths:
1. Some political leaders and health officials have a positive attitude toward harm reduction programs for sex workers
2. Existence of Triangular and methadone clinics and drop-in centers
3. Public awareness has been raised.
4. A fairly elevated level of awareness among female sex workers surveyed (although the survey does not represent the whole country)

B. Challenges:
1. Failure of the clients of sex workers to use a condom
2. Lack of access to sex workers
3. Absence of a comprehensive plan to prevent HIV infection among female sex workers

C. Suggestions:
1. Working out a comprehensive program for female sex workers to prevent HIV infection and at the same time empower them and eventually cut their numbers
2. Using outreach teams
3. Using peer education
4. Offering integrated services
5. Working out programs to promote abstinence before marriage, encourage youngsters to get married after reaching the legal age, and promote being faithful among those married.
Indicator 17. Men who have sex with Men: Condom Use

**Definition of indicator:** Percentage of men reporting the use of a condom the last time they had anal sex with a male partner

**Purpose of the indicator:** To assess progress in preventing exposure to HIV among men who have unprotected anal sex with a male partner

**Recommended method of measurement:** Special surveys, including the Family Health International Behaviour Surveillance Survey for sex workers

**Method of measurement used by this report:** This study has used Respondent Driven Sampling (RDS) to study Men who have Sex with Men (MSM) in neighbourhoods south of Tehran.

**Recommended method of measurement:** In a behavioural survey of a sample of men who have sex with men, respondents are asked about sexual partnerships in the preceding six months, about anal sex within those partnerships and about condom use when they last had anal sex.

**Numerator:** Number of respondents who reported that a condom was used the last time they had anal sex.

**Denominator:** Number of respondents who reported having had anal sex with a male partner in the last six months

**Method of measurement used by this report:** In a study conducted by a research center, respondents were asked whether they used a condom when they last had anal sex with either male sex workers or non-sex workers.

**Value of indicator:** The study is not representative and so the value of the indicator is not calculable. However, the abovementioned study suggested that five out of eight people under 25 years of age used a condom when they last had anal sex with male sex workers. Considering the method of measurement, one comes up with 80.3% (4.9 over 6.1). The figure for those over 25 years of age was 18 out of 49. That means 33.8% (15.8 over 46.8). As for partners who were not sex workers, it was five out of 11 in the under-25 age group. In other words, the figure stood at 42.5% (3.4 over 8.0). The figure for those over 25 years of age was 24 out of 68. That means 38.2% (26.8 over 70.1).

**Interpretation of indicator:** The study involving men who had sex with other men included a very limited group who had mostly drug use to their record. Besides, most of them had no fixed abode and the sample community in the study was too small. That
means generalization of the findings of the study to others in the same group is not advisable. Little information is available on the extent of prevention services, on the behaviour of men who have sex with other men, and on HIV prevalence among them. Besides, programs to render services to most-at-risk groups do not specifically target these men. In other words, one cannot say there is a specific prevention and voluntary counselling and testing program for this group.

**Indicator changes compared with previous report:**
The previous report did not feature this indicator for men who have sex with other men.

**Strengths, challenges, and suggestions for indicator improvement:**

**A. Strengths:**
- There is a vast network to render services to drug users and the facilities of the same network can be used to access other most-at-risk populations.

**B. Challenges:**
- Little information is available on the conditions of men who have sex with other men.
- More information needs to be produced.

**C. Suggestions:**
- Efforts should be made to win at least minimum indirect access to members of this group by rendering more services to all high-risk populations.
Indicator 18. Injecting Drug Users: Condom Use

**Definition of indicator:** Percentage of injecting drug users reporting the use of a condom the last time they had sexual intercourse

**Purpose of indicator:** To assess progress in preventing sexual transmission of HIV

**Recommended method of measurement:** Special surveys, including the Family Health International Behaviour Surveillance Survey for injecting drug users

**Method of measurement used by this report:**
For injecting drug users, the results of a biobehavioral survey conducted on a national scale in cooperation with research centers in 2007 were used. (31) The study was part of an integrated biobehavioral surveillance system for injecting drug users. In its first year, the study was implemented in areas covered by 13 Universities of Medical Sciences in 11 provinces which are amount to typical representation of the entire country. Time-location sampling method was used in the study.

**Recommended method of measurement:** Respondents are asked the following sequence of questions:
1. Have you injected drugs at any time in the last month?
2. If yes: Have you had sexual intercourse in the last month?
3. If yes in answer to both 1 and 2: Did you use a condom when you last had sexual intercourse?

**Numerator:** Number of respondents who reported that a condom was used the last time they had sex

**Denominator:** Number of respondents who report having had sexual intercourse in the last month

**Method of measurement used by this report:**
The method is very similar to the recommended one; except that the question about the most recent sexual intercourse in a month has been replaced by another focusing on such intercourse in a year.

**Value of indicator:**
A surveillance conducted on a national scale surveyed 2,063 injecting drug users who had injected drugs during the course of the month before the study. Of that figure 1,583 (76.7%) had sex in the year prior to the study. Figures about condom use in their ranks in Tehran and in Iran appear in Tables 17 and 18.
### Table 17. Percentage of injecting drug users reporting the use of a condom the last time they had sexual intercourse (across the country)

<table>
<thead>
<tr>
<th>Sex</th>
<th>Less than 25 year</th>
<th>25 year and more</th>
<th>proportion</th>
<th>proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N1α</td>
<td>N2°</td>
<td></td>
<td>N1α</td>
</tr>
<tr>
<td>Male</td>
<td>203</td>
<td>70</td>
<td>34.5%</td>
<td>1346</td>
</tr>
<tr>
<td>female</td>
<td>7</td>
<td>2</td>
<td>28.6%</td>
<td>26</td>
</tr>
</tbody>
</table>

N1α: The number of IDU who has injection in the last month and have the sexual intercourse in the last year.
N2°: The number of IDU who has injection in the last month and in the last sexual intercourse they have use condom.

### Table 18. Using of the condom in the last sexual intercourse among the IDUs in Tehran.

<table>
<thead>
<tr>
<th>Sex</th>
<th>Less than 25 year</th>
<th>25 year and more</th>
<th>proportion</th>
<th>proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N1α</td>
<td>N2°</td>
<td></td>
<td>N1α</td>
</tr>
<tr>
<td>Male</td>
<td>22</td>
<td>10</td>
<td>45.5%</td>
<td>189</td>
</tr>
<tr>
<td>female</td>
<td>0</td>
<td>0</td>
<td>Incalculable</td>
<td>1</td>
</tr>
</tbody>
</table>

N1α: The number of IDU who has injection in the last month and have the sexual intercourse in the last year.
N2°: The number of IDU who has injection in the last month and in the last sexual intercourse they have use condom.

**Interpretation of indicator:**

Overall, around 33% of injecting drug users in Iran have used a condom during their last sexual intercourse. The study has produced similar results for men under and over 25 years of age. Although the study has come up with similar results for women, it cannot be viewed as conclusive because of the small number of individuals surveyed. In Tehran, around 39% of injecting drug users had used a condom during their last sexual intercourse. In men over 25 years of age, similar results were produced. As for men and women under 25 years of age, it is impossible to make definitive conclusions because of the small number of respondents.

**Indicator changes compared with previous report:**

The national indicator was not measured in the previous report. In Tehran, it was limited to three poor neighbourhoods surveyed in 2005. In the 2005 report, out of 156 injecting drug users who had sex and injections in the month leading to the study, 40 (25.6%) had used a condom during their last sexual intercourse. (10) The figure in Tehran rose to 39% in 2007.

**Suggestions for indicator improvement:**

- Continuation and improvement of the surveillance in question

**Strengths, challenges, and suggestions for indicator improvement:**

A. Strengths:

- Cohesive studies involving injecting drug users have been conducted between the release of the previous report and this one.
- A fairly vast network has been set up, between the release of the previous report and this one, to contact injecting drug users.
- Prevention services such as condoms are free at these centers.
- There exists a vast primary healthcare network which makes integration possible.

**B. Challenges:**
- Some member of target group has a negative attitude toward condom use and do not know how to use one.

**C. Suggestions:**
- Supporting NGOs which offer services to most-at-risk populations, especially the ones which deal with children and women
- Securing the contribution of most-at-risk populations to the awareness campaign and tapping into the potential of the peers
- Making education about condom use at healthcare centers for most-at-risk visitors a routine practice
- Offering condoms along with education to those who visit public and private rehabilitation centers
- Increasing the number of drop-in centers and outreach groups
- And making safe sex education an integral part of services offered to injecting drug users

Definition of indicator: Percentage of injecting drug users reporting the use of sterile injecting equipment the last time they injected

Purpose of indicator: To assess progress in preventing injecting drug use-associated HIV transmission

Recommended method of measurement: Special surveys, including the Family Health International Behaviour Surveillance Survey for injecting drug users

Method of measurement used by this report:
For injecting drug users, the results of a biobehavioral survey conducted on a national scale in cooperation with research centers in 2007 were used. (31) The study was part of an integrated biobehavioral surveillance system for injecting drug users. In its first year, the study was implemented in areas covered by 13 Universities of Medical Sciences in 11 provinces which are amount to typical representation of the entire country. Time-location sampling method was used in the study.

Recommended method of measurement: Respondents are asked the following questions:
1. Have you injected drugs at any time in the last month?
2. If yes: The last time you injected drugs, did you use a sterile needle and syringe?
Numerator: Number of respondents who report using sterile injecting equipment the last time they injected drugs.
Denominator: Number of respondents who report injecting drugs in the last month

Method of measurement used by this report: The same as recommended

Value of indicator:
Tables 19 and 20 include separate values of indicator in Tehran and the entire country.
Table 19. Percentage of injecting drug users reporting the use of lower risk injection the last time they injected (across the country)

<table>
<thead>
<tr>
<th>Age</th>
<th>Less than 25 year</th>
<th>25 year and more</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N1α</td>
<td>N2°</td>
</tr>
<tr>
<td>Male</td>
<td>218</td>
<td>57</td>
</tr>
<tr>
<td>Female</td>
<td>7</td>
<td>4</td>
</tr>
</tbody>
</table>

N1α: Number of injecting drug users reporting the use of sterile injecting equipment the last time they injected during last month
N2°: Number of injecting drug users reporting the use of their own injecting equipment the last time they injected during last month
N3◊: Total number of injecting drug users reporting drug injection during last month
β: Including injection with sterile syringe and used syringe by themselves.

Table 20 Percentage of injecting drug users reporting the use of lower risk injection the last time they injected (in Tehran)

<table>
<thead>
<tr>
<th>Age</th>
<th>Less than 25 year</th>
<th>25 year and more</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N1α</td>
<td>N2°</td>
</tr>
<tr>
<td>Male</td>
<td>24</td>
<td>8</td>
</tr>
<tr>
<td>Female</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

N1α: Number of injecting drug users reporting the use of sterile injecting equipment the last time they injected during last month
N2°: Number of injecting drug users reporting the use of their own injecting equipment the last time they injected during last month
N3◊: Total number of injecting drug users reporting drug injection during last month
β: Including injection with sterile syringe and used syringe by themselves.

Interpretation of indicator:
Overall, around 95% of injecting drug users in Iran had not shared a syringe in their last injection. Almost two-thirds of them had used sterile syringes in their last injection. The study produced similar results for men under and over 25 years of age. Although the study came up with similar results for women, it cannot be viewed as conclusive because of the small number of individuals surveyed. In Tehran, more than 95% of injecting drug users had not shared a syringe in their last injection. In men over 25 years of age, similar results were produced. As for men and women under 25 years of age, it is impossible to make definitive conclusions because of the small number of respondents.

Indicator changes compared with previous report:
The national indicator was not measured in the previous report. In Tehran, it was limited to three poor neighbourhoods surveyed in 2005. In that report, out of 589 injecting drug users who had injections in the month leading to the study, 453 (77%) had not shared a syringe. (10) In 2007 the figure for Tehran stood at 95.6%. This is a great success which seems to manifest itself on the back of a slowdown in the spread of HIV/AIDS.
Recommendations for indicator improvement:
- Continuation and improvement of the surveillance in question

Strengths, challenges, and suggestions for indicator improvement:
A. Strengths:
- Cohesive studies involving injecting drug users have been conducted between the release of the previous report and this one.
- A fairly vast network has been set up, between the release of the previous report and this one, to contact injecting drug users.
- Prevention services such as needles and syringes are offered free at these centers.
- There exists a vast primary healthcare network which makes integration possible.

B. Challenges:
- Access to injecting drug users is difficult.

C. Suggestions:
- Supporting NGOs which offer services to most-at-risk populations, especially the ones which deal with children and women
- Securing the contribution of most-at-risk populations to the awareness campaign and tapping into the potential of the peers
- Increasing the number of drop-in centers and outreach groups
- And offering "each injection a new syringe" education to injecting drug users who continue to inject drugs and have yet to receive treatment services
Impact indicators
Indicator 20. Reduction in HIV Prevalence

Definition of indicator: Percentage of young women and men aged 15–24 who are HIV infected

Purpose of indicator: To assess progress towards reducing HIV infection

Method of measurement: WHO guidelines for HIV sentinel surveillance

Method of measurement used by this report: The same as recommended

Recommended method of measurement: This indicator is calculated using data from pregnant women attending antenatal clinics in HIV sentinel surveillance sites in the capital city, other urban areas and rural areas. Numerator: Number of antenatal clinic attendees (aged 15–24) tested whose HIV test results are positive. Denominator: Number of antenatal clinic attendees (15–24) tested for their HIV infection status

Method of measurement used by this report: The same as recommended

Value of indicator: Twenty-four surveillances between 1997 and 2006 featuring pregnant women in eight provinces showed that none of the 8,253 women who were part of the surveillance were infected with HIV.

Interpretation of indicator: Data from surveillances and separate studies suggest that HIV prevalence in the general population is very low, so much so that no infections have been spotted in surveillances involving pregnant women in these years.

Indicator changes compared with previous report: Although this indicator was not measured in the previous report, surveillances conducted show that it is unlikely for the overall trend to have undergone considerable change over the years.

Recommendations for indicator improvement: - Continuation and improvement of the surveillance in question

Strengths, challenges, and suggestions for indicator improvement: A. Strengths: A weak start to the prevalence of HIV infection in the general population is too good an opportunity to be missed.

B. Challenges: The prevalence of HIV among injecting drug users is high (18.4%). Many of them are sexually active (76.7%) and only one third of them have used a
condom during their last sexual intercourse. Among young men, 18.4% experience sex before marriage. All these could be a very dangerous sign for a rise in HIV prevalence.

C. Suggestions:
Presently, the high-risk behaviour of some youngsters and some other groups such as sex workers and men who have sex with men, and links connecting these individuals to injecting drug users are the most important sources of concern over an epidemic spinning control in the general population. So policymakers, planners, the clergymen and other key groups should be sensitized to the issue. At the same time efforts should be made to secure their support for education about life skills for the youth and the general population and safe sex education for all high-risk and most-at-risk populations.

**Definition of indicator:** Percentage of most-at-risk populations who are HIV infected Annual HIV

**Purpose of indicator:** To assess progress on reducing HIV prevalence among most-at-risk populations

**Recommended method of measurement:** UNAIDS/WHO Second Generation Surveillance Guidelines; Family Health International guidelines on sampling in population groups

**Method of measurement used by this report:**

For injecting drug users, the results of a biobehavioral survey conducted on a national scale in cooperation with research centers in 2007 were used. (31) The study was part of an integrated biobehavioral surveillance system for injecting drug users. In its first year, the study was implemented in areas covered by 13 Universities of Medical Sciences in 11 provinces which are amount to typical representation of the entire country. Time-location sampling method was used in the study. For prisoners, biological surveillances conducted at the general and addiction cell blocks of some provincial prisons were used. These surveillances were repeated in the provinces in 2004 and 2006. In order to get a broader picture of HIV prevalence among sex workers, some sporadic studies (45, 46) and very small-scale surveys conducted in Tehran and some other cities were used.

**Recommended Method of measurement:** This indicator is calculated using data from HIV tests conducted among members of most-at-risk population groups in the capital city.

**Numerator:** Number of members of the most-at-risk population who test positive for HIV.

**Denominator:** Number of members of the most-at-risk population tested for HIV.

**Method of measurement used by this report:** The same as recommended

**Value of indicator:**

1. among injecting drug users: According to surveillance results, the prevalence of HIV among injecting drug users in the country stands at 18.8% (out of 1,693 surveyed 318 tested HIV positive). In Tehran the figure stood at 12.3% (out of 149 surveyed 18 were infected with HIV).
2. among prisoners: Surveillances conducted in general cell blocks in prisons in 25 provinces in 2004 and 2006 showed that the prevalence of HIV among prisoners stood at 3.3% (out of 13,266 surveyed 433 were HIV positive) and 3% (of 14,540 surveyed 435 were HIV positive) respectively.

3. among female sex workers: Data from some sporadic studies show that HIV prevalence among female sex workers who are not engaged in injecting drugs is still low and has definitely not reached the critical point of 5%. As for female sex workers who also inject drugs, HIV prevalence is at the same level as other injecting drug users.

4. among men who have sex with other men: Studies on HIV prevalence among men who have sex with other men are too limited to result in definitive conclusions.

**Indicator changes compared with previous report:**

1. Injecting drug users: The prevalence of HIV among injecting drug users posted rapid growth in the late 1990s and in the early years of the current decade and surged past the critical point of 5%. (9) It seems that expansion of harm reduction programs in prisons and in society at large halfway through the current decade has slowed down the growth. In fact, it has never reached the high rates seen in places where harm reduction programs have never been implemented. (47)

2. Prisoners: The prevalence of HIV among prisoners experienced a similar pattern to that of injecting drug users.

3. Female sex workers: Limited information available on the issue suggests that HIV prevalence has not increased over these years.

**Recommendations for indicator improvement:**
- Full deployment of biobehavioral surveillance among most-at-risk populations so much so that figures could represent the whole country.

**Strengths, challenges, and suggestions for indicator improvement:**

**A. Strengths:**
- Many religious leaders support efforts to render services to most-at-risk populations.
- Cohesive studies involving injecting drug users have been conducted between the release of the previous report and this one.

**B. Challenges:**
- It is difficult to access most-at-risk populations because of legal, cultural and social restrictions and the stigma associated with the issue

**C. Suggestions:**
- Efforts should be made to fully adopt Iran second national strategic plan to control HIV/AIDS
Indicator 22. HIV Treatment Survival after 12 months on Antiretroviral Therapy

Definition of indicator: Percentage of adults and children with HIV known to be on treatment 12 months after initiation of antiretroviral therapy

Purpose of indicator: To assess progress in increasing survival among infected adults and children by maintaining them on ART

Recommended method of measurement: Programme monitoring tools; cohort/group analysis forms

Method of measurement used by this report: Inquiries were sent to health departments of 41 Universities of Medical Sciences and Health and Treatment Services, which are the sole providers of antiretroviral therapy in the healthcare system of the Islamic Republic of Iran.

Recommended method of measurement: ART registers

Numerator: Number of adults and children who are still alive and on ART at 12 months after initiating treatment.

Denominator: Total number of adults and children who initiated ART who were expected to achieve 12-month outcomes within the reporting period, including those who have died since starting ART, those who have stopped ART, and those recorded as lost to follow-up at month 12.

Method of measurement used by this report: The same as recommended

Value of indicator: The value of indicator in September 2007 stood at 7.8%.

<table>
<thead>
<tr>
<th>Age</th>
<th>Less than 15 year</th>
<th>15 year and more</th>
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<tbody>
<tr>
<td>Sex</td>
<td>N1α</td>
<td>N2°</td>
</tr>
<tr>
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<td>1</td>
<td>2</td>
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<tr>
<td>female</td>
<td>2</td>
<td>2</td>
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</tbody>
</table>

N1α: Number of those who are still alive and on ART at 12 months after initiating treatment
N2°: Total number of those who initiated ART from September 2005 to September 2006

Interpretation of indicator:
It is unclear why the number of individuals who receive antiretroviral therapy has dropped by 25%. It is believed that withdrawal and higher mortality rates among HIV positive IDUs have both played a role in the reduction. In the past two years, the number of drug regimens available to patients has increased. This can reduce the number of withdrawals which stem from side effects and or from problems associated with limited regimens.
Indicator changes compared with previous report:
In 2004, the indicator stood at 93%. (10) It dropped to 77.8% in 2007. The 2004 report was based on inquiries from two established centers in the capital which had a long experience in rendering HIV/AIDS services. The recent report builds on inquiries from all Universities of Medical Sciences. It seems to be closer to reality. The decrease in the value of indicator could be linked to better calculation rather than a qualitative drop in the services on offer.

Recommendations for indicator improvement:
- Improvement of the clinical information system

Challenges and suggestions for indicator improvement:
A. Challenges:
1. The fact that access to most-at-risk populations, which account for a major part of individuals infected with HIV, is rather difficult makes efforts to identify them ever more difficult.
2. Failure by injecting drug users to stick to drug regimen could push down survival rates.
3. The fact that a majority of patients are in the category of injecting drug users, whose mortality rate is higher than the general population, results in lower survival rates.

B. Suggestions:
1. When it comes to injecting drug users, expansion of methadone maintenance treatment can boost their commitment to the treatment
2. Improvement of services rendered by the health system to treat opportunistic infections
3. Offering mental and social support to boost commitment to treatment
4. Launching studies to determine the reason behind the quit from treatment
Best Practices

In this part, the experiences of the country known as best practice will be presented which has been approved by an international observer.

Till now two initiatives in the field of HIV and AIDS has been known as best practice and successful models in Iran which has been confirmed by international observers.

- **Triangular Clinics/ Consultation centers for behavioral diseases**
- **Prisons**

Summarization of these practices according to the international observers is as follows:

**Triangular clinics:** these triangular clinics were established due to three epidemics of STI, IDU and HIV. They were initiated in Kermanshah province for the first time and expanded through out the country as being successful. These consultation centers consider drug injection as a harm reduction approach. Services such as STI and HIV treatment, consultation and prevention are provided in these centers. In this way both prevention and treatment are considered in these clinics and they have the major key factors for a successful HIV prevention programme.

**Prisons:** During the past decade due to gradual changes in the view of officials and authorities of Prisons Organization toward the issue of health in prisons and the efforts taken by them, led to improvement of care and treatment standards in the prisons. This made the Prisons Organization to provide the harm reduction services in side the prisons the same as it is provided in the society. In some fields the services provided by the Prisons Organizations was even better than in the society. These services were initiated by the establishment of triangular clinics in side the prisons and continued by provision of Chloride, disposable blades, trainings and consultations, and methadone maintenance treatments. The coverage of Methadone Maintenance Treatment was expanded in a way which after 2 years of a pilot project with 100 individuals, it covered more than 10000 individuals almost 75% of the people in need. Today sterile needles and syringes are provided in limited prisons as pilot project.
Major challenges and remedial actions

Some of the challenges related to each indicator has mentioned under the relevant indicator.

Major challenges and remedial actions:

In line with implementation of the second HIV and AIDS Strategic programme

Challenges:
Delay in approval of second national strategic programme;
Insufficient inter sectoral support;
Delay in compiling national monitoring and evaluation programme in order to evaluate the activities implemented by all the organizations;
The fact that high risk behaviours are taboo and hard to access the high risk groups;
Concerns of some of the policy makers and key partners on unpredictable potentials relevant to the programme of high risk behaviours in general populations;
Insufficient participation of civil society in compiling and implementing the policies.

Tactics:
Clarification of undesirable effects of AIDS epidemic on various national dimensions such as economic, social, cultural for the policy makers and request for their support in line with
1) Provision of sufficient resources such as fund, human resource and equipment for implementation of activities
2) Supportive law legislation for PLHIV
3) Required law legislation in order to provide more facilities to access high risk groups;
Activating the existing national committee in order to reach one management unit as the macro level to implement the predicted activities in national strategic programme;
Acceleration in compiling and implementing the national monitoring and evaluation programme at country level in order to evaluate the activities and access to goals of the programme over the time;
Paving the way for active participation of civil society in compiling and implementing the policies.

**In line with providing services to high risk groups**

**Challenges:**
Hard to access the IDUs (despite positive achievements gained in this field considering the adopted policies in recent years);
Provision of limited services to other high risk groups such as sex workers and MSM for not having the possibility of access to these groups and stigmatization.

**Tactics:**
Increasing the coverage of harm reduction services specially with the assistance of peers of high risk groups;
Requesting support from policy makers for amendments of the law, in a way to facilitate the access and service provision to these groups.

**In line with young population of the country especially considering the fact that the major population of Islamic Republic of Iran are the young and the major role of this group in HIV and AIDS epidemic prevention**

**Challenges:**
Lack of comprehensive life skilled base education emphasizing on HIV high risk behaviour prevention in schools;
Insufficient knowledge of the awareness and behaviour of the young people;
Social – cultural limitation in presenting sexual trainings and general awareness in this area;
Discontinuation of education of groups of youth and young people in the level of guidance and high schools.

**Tactics:**
Establishment of a regular, periodical and expertise sentinel surveillance, in order to have sufficient knowledge on the awareness and behaviour of the young and also the harms which aim this group;
Implementation of pilot projects for identifying and compiling the best training and education method in order to implement comprehensive intervention actions at national level at the shortest time;
request for support of policy makers regarding life skill based trainings with emphasize on prevention of high risk behaviour (specially considering the
successful experience in having the support of policy makers and leaders in implementing harm reduction programme for IDUs); Encouraging abstinence before marriage, marrying after legal age and being faithful after marriage.

**In line with providing services through private sectors**

**Challenges:**
Lack of expanded intervention of private sector in providing HIV and AIDS prevention services despite its increase at country level; Insufficient knowledge of private sectors on the goals, activities and instructions of national strategy programme and sometimes taking actions out of its framework.

**Tactics:**
Implementation of training and awareness programmes for private sectors to become familiar with activities and instructions in order to avoid unacceptable actions; Recognition of existing capacities in private sectors and guiding it towards provision of HIV and AIDS prevention services.

**In line with providing services through NGOs**

**Challenges:**
Limited number of NGOs; Insufficient number of NGOs active in the field of HIV and AIDS; Not having NGO networking in the country; Weak relation between the GO and NGOs.

**Tactics:**
Providing essential facilities by the Government for: 1) Establishment of new NGOs, 2) empowering the relation between GO and NGOs, and 3) empowering NGOs’ capacities providing HIV and AIDS services; Increasing NGOs’ participation in providing HIV and AIDS services; Supporting the establishment of NGOs and empowering their cooperation with other NGOs at country level; Request the support of Policy makers.
Support from the country’s development partners

In this section, the supports being provided and the expectations are mentioned:

Providing financial resource: required funds for HIV and AIDS prevention programme in comparison to the previous report has been increased by the development partners;
Supporting the programme, implementation and monitoring of HIV and AIDS prevention activities such as technical and logistic support;
Providing required facilities enabling the country having easier access to antiretroviral and receiving them with a good discount;
Implementing international training courses for HIV and AIDS service providers and programmers in the country;
Possibility of exchanging the experiences with countries with social, economical and geographical similarities;
Assessing the implemented activities by international consultants and having approaches to eliminate the weak points;
Assisting the establishment of a regional networking of NGOs empowered in the field of HIV and AIDS services;
Sensitizing the governments in which the prevalence of HIV has become a crisis or is going to become a crisis;
Encouraging the companies producing the worlds famous commercial products in order to advocate HIV prevention programme at least for utensils used by adults (such as dressing and shaving tools, and cigarettes,…);
Making coordination among participating partners of HIV and AIDS Prevention programme with each other and national programme.
Monitoring and Evaluation Committee has established in 2003 following a decree from the National AIDS Co-ordinatory Authority as one of the five sub-committees under NAC. At first the members were mainly from Universities of Medical Sciences and Health Services and other relevant sectors have been represented in it. Nevertheless, from 2007 it has become restructured and representatives from Prison Organization, State Welfare Organization, Red Crescent Society, and Blood Transfusion Organization became members as well. In 2007, this committee has had three meetings where the main objectives have been restructuring of the committee and its terms of reference, developing indicators and M&E framework for the second strategic plan.

The assessment of the first strategic plan has been conducted in 2006, where indicators were developed based on the plan objectives and sent in worksheets to all universities and other stakeholders beside health sector which includes Ministry of Education, Prison Organization, State Welfare Organization, Red Crescent Society, Blood Transfusion Organization, Ministry of Interior, Ministry of Defence, and Ministry of Higher Education. This study conducted in nine months from October 2006 to assess the fulfilment of the first strategic plan objectives and the coverage provided by the main stakeholders. It was developed considering the situation using a rapid assessment methodology mainly on self-report and review of the available documents to define a profile of the implementation of the first strategic plan and because of limited availability of project documents; the main focus has been on process and coverage indicators.
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