

**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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## Acronyms

AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral Therapy
ARV	Antiretroviral(drugs)
CCM	Country Coordinating Mechanism
CSW	Sex Worker
DIC	Drop in Center
HIV	Human Immunodeficiency Virus
IDU	Injecting Drug User
MSM	Men who have Sex with Men
NGO	Non- governmental Organization
PEP	Post-exposure prophylaxis
PLHIV	People living with HIV
RDS	Respondent Driven Sampling
STI	Sexually Transmitted Infection
VCT	Voluntary Counseling and Testing
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNGASS	United Nations General Assembly Special Session (on AIDS)

## Introduction

With the rise of HIV among injecting drug users in Iran during the early 2000s, the country entered the concentrated epidemic phase. Through gaining the support of policymakers and adopting key decisions in line with harm reduction, a group of highly valuable activities were implemented to provide and expand HIV prevention services among injecting drug users and inmates. It seems that these measures and activities have at least led to decelerating the growth pattern of this epidemic within the aforementioned population cohort. Studies around the globe have demonstrated that HIV transmission among injecting drug users can be stopped almost entirely. To this end, the coverage of harm reduction programs among injecting drug users must be increased while enhancing their quality to the highest degree possible. Meanwhile, there are currently serious concerns regarding the rise of HIV transmission through sexual contact as there are considerable indications in favor of such a trend. The linking rings among various population groups are such that in the absence of measures of early prevention of HIV transmission through sexual contact, many opportunities might be lost in the future. Hence, now is the time for action. Religious convictions run strong in Iran and the population at large attaches an extremely high value to family. If taken into consideration correctly, this attribute can serve very instrumental in preventing the growth of this 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 Third time that Iran is reporting its DoC core indicators within the framework of UNAIDS guidelines. The first report was published in 2005 and the second one in 2007. Despite its possible shortcomings, this report 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 third report on the United Nations General Assembly Special Session on HIV and AIDS, National HIV/AIDS Monitoring and Evaluation Committee endorsed a Working Group to develop the report, consisting of members from HIV and AIDS prevention programme partners. This Working Group 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 November, 2009.

### Data collection method

This team divided the indicators based on method of calculation (source of data) into 4 groups:

Group that used data supplied by the national monitoring programme;

Group that used data supplied by integrated behavioural studies;

Group that used data supplied by biological sentinel surveillance;

Group that used data supplied through interviewing key individuals; and

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.

# 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: 352907958 Thousand RIs from 20 March 2008 to 20 March 2009 Total public funds: 309174966 Thousand RIs Total international funds: 4373299 Thousand RIs
2. Government HIV and AIDS Policies	National Composite Policy Index	Refer to the text

### National Programme Indicators

3. Blood safety	Percentage of donated blood units screened for HIV in a quality assured manner	100% from 20 March 2008 to 20 March 2009 (1784248 donated blood) Reference: statistics of Blood Transfusion Organization
4. HIV Treatment : Antiretroviral Therapy	Percentage of adults and children with advanced HIV infection receiving antiretroviral therapy	6.8% in February 2009, 9% in December 2009 according to:  - Numerator: Number of people receiving ART: February 2009 and January 2009

		<p>respectively 1122 and 1432 individuals</p> <ul style="list-style-type: none"> <li>- Denominator: Estimation number of people with advanced HIV infection</li> </ul> <p>Reference: ART registry System for numerator and estimation of number of PLHIV for denominator</p>
5. Prevention of Mother-to-Child Transmission	Percentage of HIV-positive pregnant women who received antiretrovirals to reduce the risk of mother-to-child transmission	<p>11.4% from 20 March 2008 to 20 March 2009 according to:</p> <ul style="list-style-type: none"> <li>- Number of HIV-positive pregnant women receiving ART to prevent the mother to child transmission, 25 individuals</li> <li>- Estimation of HIV-positive pregnant women, 220 individuals in the same year</li> </ul> <p>Reference: ART Registry System for numerator and Statistics from Civil Registration Organization, Mothers and children Health bureau, Sentinel surveillance by Centre for Disease Control(MOH) for denominator</p>
6. Co-management of Tuberculosis and HIV Treatment	Percentage of estimated HIV-positive incident TB cases that received treatment for TB and HIV	<p>32.3% from 20 March 2008 until March 2009 according to:</p> <ul style="list-style-type: none"> <li>- Numerator: Number of 183 individuals received treatment for TB and HIV</li> <li>- Denominator: Estimation of HIV-positives who had TB, 372 individuals</li> </ul> <p>Reference: Inquiry from Medical universities for Nominator and estimation for denominator</p>
7. HIV Testing in the General Population	Percentage of women and men aged 15-49 who received an HIV test in the last 12 months and who know their results	Since there is no study asking relevant questions to this indicator, calculation is not

		possible.
8. HIV Testing in Most-at-risk population	Percentage of most-at-risk populations that have received an HIV test in the last 12 months and who know their results	<ul style="list-style-type: none"> <li>- IDUs in 2007: 22.9% (702 out of 3060 individuals)</li> <li>- Female sex workers in Tehran in 2007: 20.4% (57 out of 280)</li> <li>- No generalizable report on MSM (refer to text for further info)</li> </ul> <p>References: Zamani <i>et al</i> for IDUs and Madani <i>et al</i> for female sex workers</p>
9. Most-at-risk populations: Prevention Programmes	Percentage of most-at-risk populations reached with HIV prevention programmes	There is no sufficient data for calculating this indicator. Please refer to text.
10. Support for Children Affected by HIV and AIDS	Percentage of orphans and vulnerable children whose households received free basic external support in caring for the child	There is no sufficient data for calculating this indicator. 07 (some supports are being provided, further explained in the text )
11. Life skills-based HIV education in schools	Percentage of schools that provided life skills-based HIV education in the last academic year	Zero per cent in the scholar year 2006-07 (some trainings are being provided, further explained in the text )

## Knowledge and Behaviour Indicators

12. Orphans: School Attendance	Current school attendance among orphans and non-orphans aged 10-14	<p>School attendance among non-orphans 92.4%. Among Orphans no reliable figure is available.</p> <p>Reference: Shoghli <i>et al</i></p>
13. Young People : Knowledge about HIV Prevention	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	<p>15.5% for Male. 17.5% for female.</p> <p>Reference: Shoghli <i>et al</i></p>

14. Most-at-risk Populations: Knowledge about HIV Prevention	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	<p>IDUs in 2007: 23.7% fully aware of preventive measures (728 out of 3060 individuals)</p> <p>Women sex workers in Tehran in 2007: 7.9% fully aware of preventive measures (22 out of 280 individuals)</p> <p>No generalizable info on MSM (refer to the text for further info)</p> <p>References: Zamani <i>et al</i> for IDUs and Madani <i>et al</i> for female sex workers</p>
15. Sex before the age of 15	Percentage of young women and men aged 15-24 who have had sexual intercourse before the age of 15	<p>6% men (53 out of 754) and 1% women (7 out of 649) had sexual intercourse before the age of 15</p> <p>Reference: Shoghli <i>et al</i></p>
16. Higher-risk Sex	Percentage of women and men aged 15-49 who have had sexual intercourse with more than one partner in the last 12 months	<p>11.2% men (92 out of 754) and 1.2% women (8 out of 649)</p> <p>Reference: Shoghli <i>et al</i></p>
17. Condom Use During Higher-risk Sex	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	<p>55.4% men (92 out of 754)</p> <p>For women no reliable figure is available. Please see text.</p> <p>Reference: Shoghli <i>et al</i>)</p>
18. Sex workers: Condom Use	Percentage of female and male sex workers reporting the use of a condom with their most recent client	<p>In a study through out Tehran in 2007: 55.0% (154 out of 280 individuals)</p> <p>References: Madani <i>et al</i></p>
19. Men Who Have Sex with Men: Condom Use	Percentage of men reporting the use of a condom the last time they had anal sex with a male partner	No generalizable info (refer to the text for further info)
20. Injecting Drug Users: Condom Use	Percentage of injecting drug users reporting the use of a condom the last time they had sexual intercourse	<p>Country wide in 2007: 32.8% (519 out of 1582)</p> <p>References: Zamani <i>et al</i></p>

21. Injecting Drug Users: Safe Injecting Practices	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)  References: Zamani <i>et. al</i>
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## Impact Indicators

22. 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 2009 is 0%  Reference: Sentinel sites Data
23. Most-at-risk Populations: Reduction in HIV Prevalence	Percentage of most-at-risk populations who are HIV infected	<ul style="list-style-type: none"> <li>- IDUs in 2007: through out the country 14.3% (415 out of 2899) and through out Tehran 12.3% (18 out of 149)</li> <li>- For women sex workers there is no generalizable info (refer to the text for further info)</li> <li>- There is no generalizable info for MSM (refer to the text for further info)</li> </ul> References: References: Zamani <i>et. al</i> for IDUs and for other groups please see text.
24. 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 January 2009, 70% (358 out of 514 individuals who have received ART have been on treatment 12 months after initiation of ART  Reference: ART Registry System
25. Reduction in Mother-to-child Transmission	Percentage of infants born to HIV infected mothers who are HIV infected	0.31% reduction of HIV transmission with ART treatment  Reference: ART Registry System and estimation



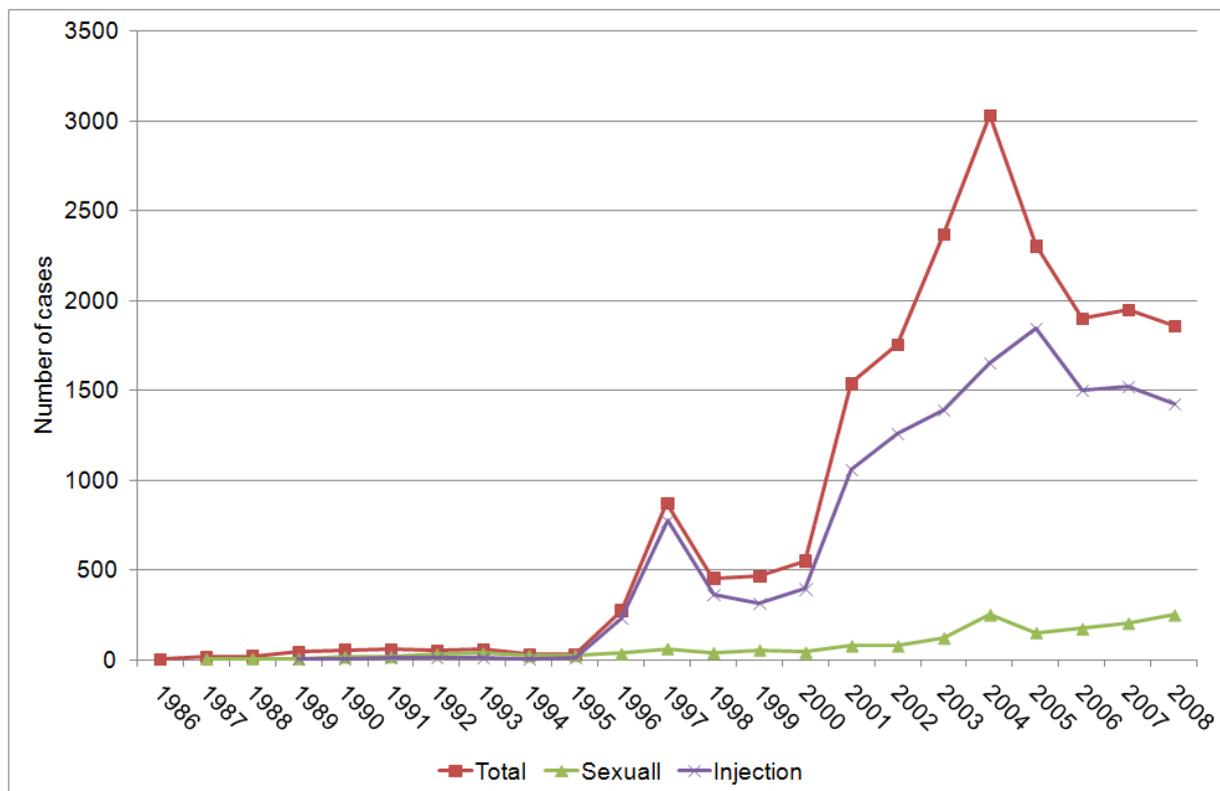
## Overview of the AIDS epidemic

*This section presents the general state of the HIV epidemic in the Islamic Republic of Iran, based on data collected in case registry system of CDC MOH, data from sentinel site, Data from integrated biobehavioral studies and other relevant studies.*

**The Data of the Registry System:** The first cases of HIV in Iran were reported in 1986 and until 1995; a gradual and slight increase was noted in the country's annual reports. With an HIV epidemic identified in 1996 in some of Iran's penitentiaries, the number of identified cases suddenly underwent a significant increase and this trend continued until 2004 when the total number of identified cases reached its maximum in the course of one year. In the next two years, there was a fall in the number of the identified cases and the rate has thence remained at the same level. <sup>(1)</sup> It is worth noting here that the system for recording identified cases was reviewed in 2004 with the reporting forms changed and a number of cases who had not appeared in the system before were reported in 2004. <sup>(2)</sup> Hence, the interpretation of the curve for annual identified cases based on the registry system data must be done with precaution. The first case of HIV transmission through injecting drug use was identified in 1989 and until 1995, there were only around 5-10 new such cases having been identified. With the outbreak of the epidemic among injecting drug users, however, the rate of transmission within this cohort increased 23 times as much in 1996 compared to the rate of the previous year and was for the first time identified as the most prevalent form of transmission, a fact that has remained in place to this day. The number of registered cases of transmission through injection underwent a gradual increase until 2005 and in 2006 fell 16% compared to that of the previous year and remained relatively stable in the next years. <sup>(1)</sup>

The share of sexual transmission in the identified cases remained relatively stable until 2006 standing at approximately 5-8% but the absolute value of this percentage has been rising continuously and has gone from 50 cases in 2000 to almost three times that much in 2006. This trend has been on the rise ever since reaching a total of around 13% of all the identified cases in 2008. The major factor behind this rise is the increase in identifying female cases <sup>(1)</sup> (Figure 1).

**Fig1: trend in transmission route of HIV, based on surveillance data in IRAN 1986-2008**



Furthermore, the share of unknown modes of transmission among the identified cases in the first half of the 2000s has been rising from 8.2% in 1998 to 23.7% in 2006 and has subsequently dropped to 9.3% in 2008 with the consolidation of the surveillance system in place and the change in data gathering methodology.

<sup>(1)</sup> The assumption plausible in this context is that at least a quota of this increase in the number of transmissions through unknown modality is on account of sexual transmission which remains in effect unknown because of the stigmatization that surrounds the case. Another cause is the increase in the number of identified cases through surveying at the sentinel sites which does not lead to the identification of the transmission mode.

The small share of women among the identified cases (7% so far) <sup>(3)</sup> can be a product of the major role of drug injection in Iran's epidemic and the small number of female injecting drug users. Yet, some concerns remain about the lower sensitivity of the identification of HIV among women in Iran.

Interestingly, the incidence of the epidemic does not follow the same pattern in the different provinces of the country and up to September 21, 2005, the mean annual incidence for the overall population based on the identified cases varied from 2.3 to 103.6 persons per 100,000 in different provinces. It seems that this inconsistency is due to the discrepancies in the incidence of risky behaviors in the various regions of the country and also due to the differences in the rate of services provided for the identification of cases. There is even a lack of consistency when it comes to the most prevalent means of transmission in Iran meaning that although in the absolute majority of the provinces, the most prevalent means of transmission is through drug injection, the rate of sexual transmission was equal to that of drug injection in one province. <sup>(4)</sup>

Based on the data collected from medical universities, a total of 20,130 HIV+ cases had been identified in Iran until September 21, 2009: 93% of them men and 7% women. So far, 2097 of these identified cases have contracted AIDS and 3409 people have lost their lives. Some 37.9% of HIV infected cases are in the 25-34 age cohort and this is the highest in any age group. <sup>(3)</sup>

The reasons for HIV transmission in all the cases which have been registered since 1986 are (in order of magnitude) sharing injection equipment among injecting drug users (69.8%), sexual intercourse (8.5%), blood transfusion (1.2%), and mother-to-child transmission (0.6%). The means of transmission among 19.9% of this group is unaccounted for. <sup>(3)</sup>

The reported cases of 2008 include injecting drug users (76.6%), sexual contact (13.3%), and mother-to-child transmission (0.8%). In 9.3% of the identified cases in this year, the transmission mode was unknown and no new cases of transmission through blood transfusion were reported. <sup>(3)</sup>

**The Results of the Surveys in sentinel sites:** Surveying among different population groups to monitor the changes of HIV prevalence within these groups began in 1997 in Iran. <sup>(5)</sup> Up to the end of 2008, over 630 surveys on 227,000 individuals were conducted in the different population cohorts including injecting drug users, inmates, sex workers, truck drivers, sailors, people with STDs, and pregnant women. <sup>(5)</sup>

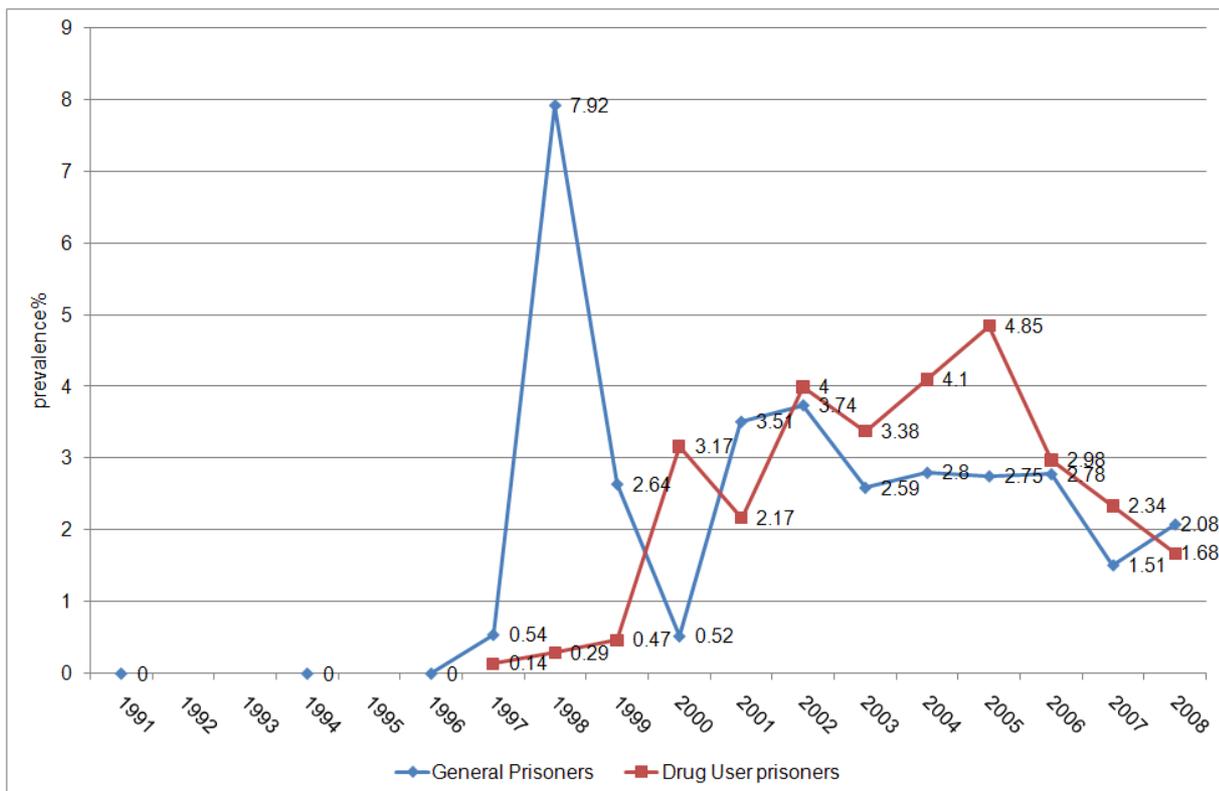
The data on the conducted surveys among injecting drug users has been discussed in the section on "HIV prevalence in different groups".

From 1998-2008, 18 surveys were conducted in three sentinel sites in 3 cities among those with STDs. The surveys continued in two sentinel sites until 2004 and no cases of HIV were identified in 11 such surveys. In the third one, HIV prevalence went up from 0.2% in 2001 to 1.2% in 2008. <sup>(5)</sup>

In the years between 1991 and 2008, 117 surveys were conducted among the inmates of the wards for drug addicts of 33 cities and in the same period, 332 surveys were done in the general wards of the prisons of 60 cities. <sup>(5)</sup> As it has been depicted in the HIV prevalence curve in this survey (Figure 2), the infection prevalence rate in the wards for drug addicts was on the rise until 2005 and then gradually went down. The same trend was also true among the inmates of the general wards excluding the year 1998 when 23% prevalence was observed in

one facility which accounts for almost 30% of that year's surveyed samples. Such a high prevalence was not seen ever again in the general prison wards of the same city in the following years. <sup>(5)</sup> In a bio-behavioral study conducted in 2009 among 5530 inmates in 27 of Iran's penitentiaries, HIV prevalence was found to be 1.27% and 0.75% among male and female inmates, respectively. <sup>(6)</sup>

**Figure 2 – The trend of HIV prevalence in Iran's penitentiaries, 1996-2008**



In the period between 2003-2008, a total of 11 surveys were conducted in four cities and among 1495 women who needed intervention in crisis, three of whom were HIV infected. True it is that a number of these women were definitely sex workers; yet it appears that a number of them were not necessarily sex workers although they were engaged in extramarital sex. <sup>(5)</sup>

In 29 surveys conducted in nine cities around the country covering 5235 pregnant women in the course of 1996-2008, no case of HIV was identified. <sup>(5)</sup>

In another 26 surveys conducted between 2001 and 2008 among truck drivers (transit and domestic drivers), no cases were observed either. <sup>(5)</sup>

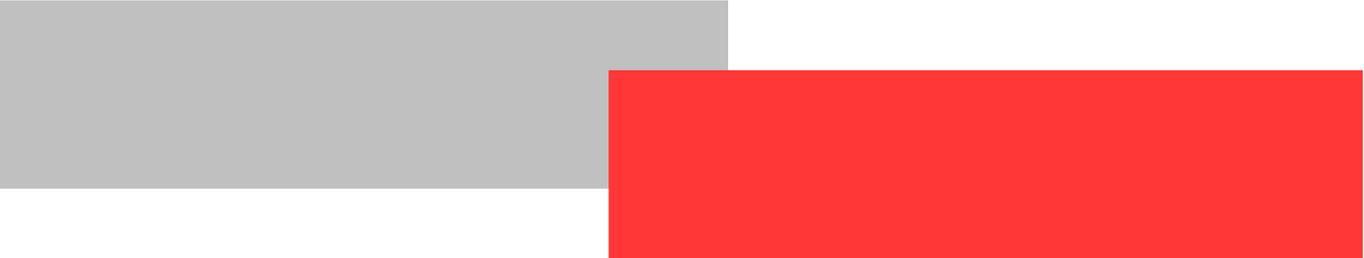
Another group were sailors with 14 surveys conducted on them in four ports between 1997-2007: excluding one city which had an infection rate of around 5000 all throughout the 2000s, the other cases were zero. <sup>(5)</sup>

**HIV Prevalence in Different Groups:** Altogether, analyses of the data within the registry system, surveys, bio-behavioral studies, and individual studies demonstrate that:

1. The prevalence of HIV transmission is low among the general public; for instance, no case has been identified in the surveys on pregnant women in these years; <sup>(5)</sup>
2. The prevalence of infection among injecting drug users towards the end of the 1990s and early 2000s saw a rapid rise thereby surpassing the critical 5% level. <sup>(4)</sup> It seems, however, that with the relative growth of harm reduction activities in prisons and in the society at large since the mid-2000s onwards, the rapid pace has slowed down and Iran has been able to prevent reaching the very high figures of some regions of the world which lack any harm reduction programs whatsoever. In 2007, an average of 14.3% of injecting drug users were HIV infected. This statistic varied from the minimum of 0% to a maximum of 35.7% in different provinces. In two of the provinces, the infection prevalence was between 5% and 20% while being over 20% in five provinces. <sup>(7)</sup>
3. The prevalence of HIV among inmates is also a pattern similar to what was noted about injecting drug users. Nevertheless, the rate was always lower and the most recent bio-behavioral survey in 2009 revealed 1.27% and 0.75% among male and female inmates, respectively. <sup>(6)</sup>
4. The data of certain studies here and there demonstrate that HIV prevalence among female sex workers who were not injecting drug users has not reached 5% yet. <sup>(4)</sup> If the infection prevalence among an at-risk group transcends 5%, there is a concentrated epidemic within that group. Although the results of the monitoring of the national program in 2009 over 10 provinces indicate that the rates of HIV infected female sex workers who referred to public facilities for counseling and testing in 2007 and 2008 were 5% and 7%, respectively, <sup>(8)</sup> the ratio of the simultaneity of drug injection in this group is not clear. Certain reports on injecting female sex workers portray that HIV prevalence in this group is very much like that of other injecting drug users. <sup>(4)</sup>
5. Despite the fact that the most prevalent transmission modality among the known ones is drug injection, the relative share of transmission through sexual contact and the number of cases identified who have become inflicted through such contacts have gone up. <sup>(1)</sup>
6. Studies on HIV prevalence among males having sexual contact with other males are very limited and cannot lead to generalizability of results.

**Estimation of the Number of HIV positive Cases:** Just as is the case with other countries, the identified cases in Iran comprise only a part of all the cases.

Although estimating the number of HIV infected cases and at-risk groups in most of the countries of the world is an arduous task, this estimation and also that of the number of cases in each population cohort exposed to HIV are among the indicators which can play a decisive role in clarifying the political orientation of prevention with respect to the size of each at-risk group, the gravity of the problem in each of the groups, the change in the conditions of the epidemic among them, and the identification of the program's blind spots. Since 1993, attempts have been made by the experts and directors of the nationwide AIDS program to calculate the number of HIV infected cases in the country through applying a special software; the results show an estimated 30,000 to 40,000 HIV infected cases in the country. In 2005, the same basis was used and the estimate was 60,000 to 70,000 while extending 80,000 in 2007.<sup>(9)</sup> In 2009, the number of cases was estimated to be 83,000<sup>(10)</sup> which illustrates a significant drop in the trend of increase; this may be attributed to the relative success of harm reduction programs among injecting drug users. Although these findings invigorate hope, we need to be cautious in our ultimate conclusions and while continuing prevention programs, we need to await further assessments since the quality and precision of the estimation we have reached is dependent upon the quality and precision of the information available on the number of individuals in each group and the rate of HIV prevalence within those groups. Hence, the information improves throughout the years with consolidation of surveillance programs among at-risk groups and, in some cases, it may represent discrepancy with the data applied or produced in previous periods. Such discrepancies do not necessarily mean changes in the number of individuals in at-risk groups and may simply be caused by higher quality data.



# **National Response to the AIDS epidemic**

**A**

# **National Commitment and Action Indicators**

## Indicator1. 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 public and international sources to control and prevent HIV/AIDS between March 21, 2008 and March 20, 2009 totalled 352,907,950 thousand rials. The amount of money spent by the government of the Islamic Republic of Iran in the same period was 309,174,961 thousands rials. During the same period, international organizations spent 4,373,289 thousands rials. Table 1 provides a breakdown of these figures by broad programmatic areas.

Table 1 (Spending on HIV/AIDS in 20/3/2008 – 20/3/2009)

Organization Reporting Expenditure Category	Government Sources <sup>Ω</sup> ( thousand rials)			International Sources ( thousand rials)			Total
	Universities of Medical Sciences and Health and Treatment Services	Other state organizations	Total	Global Fund to Fight AIDS, Tuberculosis and Malaria	Other International Organizations	Total	
Prevention <sup>α</sup>	15,064,115	166,463,290	181,527,406	11,720,901	6,694,618	18,415,519	199,942,924
Care and Treatment <sup>β</sup>	20,795,498	17,253,242	38,048,741	4,111,752	0	4,111,752,488	42,160,492
Social Advocacy <sup>π</sup>	1,354,220	6,733,005	8,087,225	0	0	0	8,087,225
Policy Management <sup>μ</sup>	10,929,587	26,997,818	37,927,405	6,070,470	1,468,655	7,539,125	45,466,530
Staff Salaries	17,329,859	21,927,364	39,257,224	8,877,475	3,342,623	12,220,098	51,477,321
Improvement of Social Conditions <sup>◇</sup>	693,832	0	693,832	3,264	0	3,264	697,096
Research <sup>○</sup>	2,921,701	711,430	3,633,131	0	1,443,231	1,443,231	5,076,362
<b>Total</b>	<b>69,088,812</b>	<b>240,086,149</b>	<b>309,174,961</b>	<b>30,783,862</b>	<b>12,949,127</b>	<b>43,732,989</b>	<b>352,907,950</b>

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, production and distribution of video clips, subtitles, etc., 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.

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, and spending on antiretroviral drugs .

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 20, 2009, government coffers have been the main provider of finances for implementation of HIV/AIDS control programs. The government provided 88.4% of total found. The Global Fund to fight AIDS, Tuberculosis, and Malaria and international organizations paid for some 11.6% of all costs associated with HIV/AIDS control and prevention in the country. 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 20, 2009 nearly 16.2% increased over the same period two years earlier. International spending, excluding the project of the Global Fund to Fight AIDS, Tuberculosis, and Malaria, registered 55.9% increase during the same period.

**Challenges for indicator improvement:**

1. Absence of special HIV/AIDS control budgeting in some agencies such as the Welfare Organization and Prisons' Organization.
2. Lack of complete allocation of financial resources to national strategic plan one and two.

## Indicator 2. National Composite Policy Index

*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.*

### **National Strategic Plan for HIV/AIDS Control and Prevention**

The second National Strategic Plan (NSP) for control and prevention of the 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. <sup>(11)</sup> This multi-sectoral approach was taken up eight years ago, when the first NSP was prepared. <sup>(12)</sup> Consequently, Ministry of Education, Drug Control Headquarters, Prisons' Organization, Iranian Red Crescent Society, Iranian Blood Transfusion Organization, State Welfare Organization, Islamic Republic of Iran Broadcasting, Law Enforcement Forces, Organization of Bus Terminals, and UN agencies have all contributed to the process while the Ministry of Health, Treatment and Medical Education functioned as the secretariat. <sup>(11)</sup>

Certain amount of funding has been allocated to the activities performed within the framework of NSP or in the organizational framework of each institution. The NSP focuses on high risk groups, young men and women, and orphans and vulnerable children. It also takes notice of the settings such as schools, workplaces and prisons. Furthermore, it covers issues related to HIV, including poverty, human rights, participation of PLWHA, stigma and discrimination, and women's empowerment. <sup>(11)</sup> There is no specific program designed for MSM. There has also been no systematic needs assessment study to determine target populations. Instead KAP studies and periodical surveys were used for this purpose. There are still fundamental questions as to the necessity of including certain subgroups, such as military personnel or immigrants in the high-risk category of the NSP target groups. Thus, the target groups for this plan are the general public, including policy makers, blood donors, adolescents, youth, and women; at-risk populations including students, soldiers, health workers, drug users, truck drivers, STD patients, sailors and refugees; and most-at-risk populations including injecting drug users and their spouses, prisoners and their spouse, sex workers, street children, PLWHA and their spouses. <sup>(11)</sup>

The NSP includes an action plan with specific objectives. It also contains a detailed budget delineating funding resources for each objective. <sup>(11)</sup> Yet funding sources are at times vague. It should also be noted that civil society organizations have not contributed fully to the drafting process. Nevertheless, representatives from civil society, PLWHA and academia are present at the National AIDS Committee, technical committees, and the National Coordination Committee. UN agencies have approved the 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 program for control and prevention of HIV and AIDS epidemics <sup>(13)</sup>, however, it has not specifically mentioned the correlation of HIV and issues such as treatment of opportunistic infections and antiretroviral therapy, care and support for PLWA and their families, reduction of the impact of AIDS prevalence, decrease in stigma and discrimination, and reduction of economical and gender inequalities. Given the current level of HIV prevalence among the general population, this approach seems reasonable. <sup>(11)</sup> Nevertheless, the second NSP has paid special attention to this issue. There was also no need to assess the financial impact of HIV prevalence on economic planning for the same reason. Two surveys, however, have been conducted to measure the direct and indirect economic costs of HIV/AIDS. <sup>(14 and 15)</sup> The second NSP has paid attention to the HIV/AIDS preventive measures in the armed forces with a focus on behavior change. <sup>(11)</sup> At the drafting stage of the NSP, no monitoring and evaluation framework was present; however one was drafted for this purpose later. For awareness of the status of the epidemic, behavioral surveys were conducted among high-risk groups and further studies are being designed. There are laws to protect certain high-risk groups and vulnerable subgroups against discrimination. These include IDUs, inmates and immigrants. Nevertheless, the impact of such legislation and their enforcement in fighting or reducing discrimination remains insufficient.

Iran has attempted to comply with its UNGASS commitments. It has taken those commitments into account and allocated funds to reach the objectives of its NSP. Iran has also undertaken the task of updating its estimates of the sizes of potential target groups. The data has been updated in 2009. <sup>(10)</sup> There were also measures to monitor the delivery of services to IDUs and PLWHA. <sup>(10)</sup> Attempts have been made to reach reliable estimates of the number of children and adults who will need ARV treatment in the future <sup>(10)</sup>. There is disaggregated monitoring of HIV program coverage based on sex, population subgroup and geographical location (though merely down to province level). <sup>(8)</sup> Information attained through such monitoring has been used in revising the NSP. Iran has developed a plan to strengthen its health system including infrastructure, capacity-building/ human resources and medication distribution support systems.

In brief, measures for the HIV strategic Plan were evaluated as positive for the 2008-2009 period, with some progress made, including:

- 1- Slowing down of the growth of the epidemic among IDUs due to harm reduction programs
- 2- Control of the epidemic in prisons
- 3- Establishment of special counseling centers for vulnerable women
- 4- Advocacy among policymakers and the judiciary for harm reduction interventions among drug users
- 5- Insurance coverage
- 6- Implementation of the M&E plan

Most important challenges against the plan were identified as:

- 1- Concern among some experts regarding insufficient policy support for certain HIV prevention programs, especially in the area of prevention of sexual transmission
- 2- Shortcomings in widespread information dissemination by the state broadcaster and through public education
- 3- Insufficient access to sexually high-risk populations
- 4- Insufficient information and lack of transparency in information on risky sexual behavior and prevention methods.
- 5- High cost of detection and prevention services for PLWHA

## **II- Political Support**

The minister of health, treatment and medical education is usually the highest ranking state official who speaks on AIDS-related issues at public assemblies. To manage and coordinate the relevant sectors at national level, there is a National AIDS Committee. <sup>(16)</sup> It includes an organizational chart designating its secretariat and board members together with their terms of reference. Yet, the Committee has not been able to hold regular meetings since the last report was submitted. The Committee is comprised of 30 members and is headed by the minister of health, treatment and medical education. At national level, five sub-committees 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. Four of these committees are operational, but the last one has not started its activities yet. 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 so that their views would be integrated in the significant processes. <sup>(16)</sup>

One of the tasks of the national committee, its subcommittees and its provincial sub-divisions is to increase the extent of interactions between different stakeholders, such as government bodies, people living with HIV, private sector, and civil society organizations. The most significant achievements of this process are in the implementation of many projects targeting injecting drug users and people living with HIV. In addition, the effective interaction of the stakeholders resulted in action plans drafted by CSOs at provincial level, with specific attention to current needs and capacities. The most challenging barriers to participation of civil society organizations (CSO) at national level include absence of a national body for coordination among CSOs delivering services to people living HIV, insufficient number of NGOs, complicated licensing procedures for service delivery to high-risk populations, multitude of licensing entities at the MoH

and State Welfare Organization, and lack of proper coordination among officials in implementing multi-sectoral programs.

Furthermore, the Drug Control Headquarters (DCHQ) has played a significant role in the process of reducing vulnerabilities caused by drug use. It has brought different stakeholders together, attracted and distributed funds among relevant implementing bodies, drawn attention and support from policy makers to revise legislation and regulations concerning drug users. Simultaneously, Iran has 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 directives on the removal of barriers against harm reduction interventions<sup>(17)</sup> and prohibition of sentencing of drug users to imprisonment.<sup>(18)</sup> Additionally, there is a vice-presidential instruction to put an end to mandatory blood testing prior to government recruitment and banning the dismissal of HIV-positive state employees.<sup>(19)</sup> The Ministry of Education has mandated schools across the country to enroll students living with HIV.<sup>(20)</sup> Other relevant directives stipulate non-segregation of inmates living with HIV<sup>(21)</sup>, access to condoms at triangular clinics and provision of private conjugal visiting rooms at prisons<sup>(22)</sup>, recognition of harm reduction programs as treatment and prohibition of indictment of treatment recipients on charges of addiction<sup>(23)</sup> and the prohibition of HIV testing prior to issuance of visas.<sup>(24)</sup>

It should be noted that one of the most remarkable achievements has been the ratification by the Expediency Council, with subsequent approval by the Supreme Leader, of Iran's National Policies on Addiction and Harm Reduction Interventions Strategy.<sup>(25)</sup>

In conclusion, the progress made in attracting political support for control and prevention of HIV and AIDS epidemics program in 2008-2009 was evaluated as acceptable, due to measures toward revision of directives and laws and increased involvement of key officials in AIDS control programs.

Remaining challenges include:

- 1- Rotation of administrators, thus necessitating re-briefing and advocacy among new officials
- 2- Negative attitudes of certain national policymakers and decision makers regarding some aspects of education about prevention of sexual transmission of HIV

### **III- Prevention**

There is a national strategy for information management, education and communication with the public, regarding HIV control and prevention.<sup>(11)</sup> Prevention strategies are adopted to enhance the idea faithfulness in terms of sexual relations and condom use. The public is exposed to key messages on abstaining from injecting drug use and promoting the use of sterilized injecting equipment. Strengthening the role of men in reproductive health, awareness of infection status, prevention of MTCT, refraining from non-

sanitary tattooing or bloodletting and increasing admission of clients referred to treatment centers are all components of the prevention strategy. <sup>(11)</sup> During this period, no comprehensive program for improving the quality of communication and reporting have been implemented through mass media. There are strategies for educating the youth on reproductive health and safe sex and its relevance to HIV. <sup>(11)</sup> However, formal educational curriculum lacks in subjects to educate primary and middle high school children on HIV. Of course, education on HIV is offered in high schools with a cursory coverage also in middle schools. Last year the content of such education was greater as compared to the year before. It should be noted that the education on HIV is offered to boys and girls equally. Yet, no extra-curricular activities have been developed for young people except those at juvenile detention centers. There is also a national strategy for information management, education and other preventive measures for high risk groups. For IDUs these include targeted awareness raising on harm reduction, condom promotion, reproductive health education, VCT, reduction of stigma and discrimination, needle & syringe distribution and methadone maintenance treatment. <sup>(11)</sup> Over the recent past preventive programs were significantly expanded in prisons by the prisons' organization. Preventive services have included systematic and targeted awareness raising regarding HIV transmission and risks, stigma and discrimination reduction, condom promotion, VCT, reproductive health education, harm reduction education detoxification, maintenance treatment, psychotherapy and availability of disposable shaving blades. <sup>(11)</sup> In addition, the spouses of prisoners receive the same education and information. Furthermore, preventive programs have included truck drivers among their target populations offering them targeted HIV and condom promotion education. <sup>(11)</sup> Female sex workers receive the same harm reduction education and VCT services, but the scope the programs are limited. Similarly, VCT services, condom and reproductive health promotion and STD treatment programs have been foreseen for clients of female sex-workers. <sup>(11)</sup> In conducting needs assessment for HIV prevention programs Iran has used situation analyses, monitoring and evaluation studies, bio-behavioral studies and KAP studies. Yet there has not been a classical needs assessment study, per se. It would seem that most persons requiring blood safety, standard precautions, drug-injection harm reduction, and information/education on risk reduction have had access to these services. <sup>(8)</sup> There are, however, serious concerns about access to information / education on de-stigmatization, condom promotion, harm reduction for sex workers and MSM, skills-based HIV education at schools and HIV prevention among non-enrolled youth. <sup>(8)</sup>

On the whole, measures for improvement of policy on HIV prevention during 2008-2009 has been described as positive because of inclusion of more population groups in programs, including sex workers and spouses of IDUs and inmates <sup>(11)</sup> as well as the drafting of "National Policies on HIV & AIDS" <sup>(26)</sup>. Also measures to implement HIV prevention programs in 2009 have

been evaluated as positive. Noteworthy achievements since the previous report include:

- 1- Control of the epidemic among IDUs
- 2- Expansion of prevention programs
- 3- Expansion of educational programs

Remaining challenges include:

- 1- Limitations in access for some at-risk populations
- 2- Limitations in public information dissemination

#### **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.<sup>(11)</sup> Iran has tried to assess the prevailing needs in this regard through monitoring and evaluation of programs, situation analyses and bio-behavioral studies. It would seem that most identified PLWHA requiring ARV treatment, home care, palliative care, screening, TB co-trimoxazole prophylaxis and post-rape prevention have had access to these services.<sup>(8)</sup> Yet there remain concerns regarding STI management and psychological support for patients. Iran has adopted a policy of use of generic medication along with parallel HIV medicine imports and has access to regional mechanisms for ordering and managing procurement of key products such as ARV medication, condoms and substitution drugs.

Overall, measures to implement HIV treatment care and support programs in 2009 have been evaluated as positive. Significant progress has been made since the previous reporting period that includes:

- 1- Development and updating of clinical care guidelines
- 2- Gratuitousness delivery of ARV drugs and services
- 3- Gratuitousness delivery of hospitalization of PLWHA
- 4- Establishment of the PLWH support committee

The key challenge in this regard remains the continuous supply of ARV medication.

It should be noted that in spite of existing strategy and policy on orphans and other children vulnerable to AIDS<sup>(11)</sup>, no program has been developed to meet the need of such children. Of course, the issue of street children has been closely observed since a few years ago. At present, certain bylaws authorize the Social Welfare Organization to assume custody of these children. In addition to SWO, municipalities, and to some degree, NGOs working with orphans and children of dysfunctional families are extending their services to street children. All such referees are covered by SWO protection/ subsistence services regardless of cause of affliction and without any discrimination. SWO director has also issued a directive mandating admission of PLWH as clients at its affiliated centers.<sup>(27)</sup> Altogether, no

remarkable progress was observed in responding the needs of orphans and other children made vulnerable by AIDS in 2008-2009.

#### **V- Monitoring and Evaluation**

The strategy for monitoring and evaluation has been drafted and incorporated into the second NSP. Furthermore, an action plan has been prepared.<sup>(11)</sup> The action plan went into effect in 2009.<sup>(8)</sup> It was designed by key partners to the M&E plan through consultation with PLWH and civil society.<sup>(8)</sup> All key partners have made their monitoring and evaluation needs consistent with national monitoring and evaluation requirements. The national M&E plan includes a data collection strategy for routine monitoring of the plan, behavioral surveys, and HIV care and research studies. It also includes a set of indicators with suitable, standardized definitions. To guide the use of data collection instruments, a guidebook has been developed.<sup>(28)</sup> There is a specific strategy in place to evaluate the validity and quality of data, as well as data analysis, reporting and use. Funding has also been set aside for the implementation of the M&E plan which amounts to about 3% of the total budget for the National Plan. The formation of an exclusive unit for monitoring and evaluation has been in the works.<sup>(2)</sup> A mechanism exists to ensure dispatch of all data and reports related to monitoring and evaluation to be included in the national monitoring and evaluation system. This involves recording and collection of data at the level of service delivery centers, and subsequent dispatch to higher levels, all the way to the monitoring and evaluation committee, which in turn holds regular meetings. Establishment of a central databank with a designated officer in charge has been foreseen to compile HIV-related information. The databank will contain relevant information as divided into different areas, target groups and geographic coverage of services as well as information related to service delivery centers.<sup>(2)</sup>

A Health Information System (HIS) already exists and operates which extends from the health houses, through rural health & treatment centers, urban health & treatment centers, district health & treatment centers, the local medical sciences universities, on to the Ministry of Health. Monitoring and evaluation reports have not been published on annual basis, but the results of evaluations made thus far have been applied in the development of the National AIDS Control Program, helping significantly in the enhancement of the program and increasing its allocated funding.

Much effort has gone into capacity building and human resources development for monitoring and evaluation. Last year a workshop was held for AIDS experts from medical sciences universities and partner organization officers from the provinces.<sup>(8)</sup> Furthermore an HIV Care Education Center has been established in Kerman.<sup>(29)</sup>

On the whole measures implemented for monitoring and evaluation of the HIV plan over the 2008-2009 periods have been assessed as positive. Progress made since 2007 has been significant and includes:

- 1- Implementation of the First M&E Plan in 2009
- 2- Formation of a specific technical team to guide the plan
- 3- Implementation of a training program for field officers

The main challenge in this regard is the phase lag between the flow of the AIDS Control NSP and its M&E plan.

## **VI- Human rights**

There are certain laws and regulations that protect people living with HIV against discrimination. The vice-president issued a circular prohibiting HIV testing prior to employment of government staff. Based on this circular dismissal of the PLWHA staff is disallowed.<sup>(19)</sup> Another circular issued by the Ministry of Education mandates the enrollment of children living with HIV in schools.<sup>(20)</sup> A circular has been issued to incarceration 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.<sup>(30)</sup> Various articles in the Constitution of the Islamic Republic of Iran stress the equality of all persons before the law, the State's responsibility in eliminating unfair discrimination against any person in whatever material and spiritual term, equal enjoyment of political, economic, cultural and human rights for all citizens and equality of access to health and treatment services.<sup>(31)</sup>

The NSP emphasizes the right of patients to confidentiality as a human right.<sup>(11)</sup> There is no gender disparity in access to preventive measures. The local or national ethics committee should be informed of and approve all HIV/AIDS research protocols involving human subjects. There are some rules and regulations for elimination of discrimination against IDUs and inmates and for protection of their rights. The directive by the head of judiciary prohibiting the indictment of IDUs in harm reduction programs stands out as an example of the existing legal protection in this regard. Even though addiction is considered an offence under prevailing laws.<sup>(19)</sup> Other official directives demand the expansion of harm reduction programs in prisons<sup>(17)</sup> and drug users' immunity from arrest on charges of addiction.<sup>(18)</sup>

The director of the National Welfare Organization has also issued a circular mandating admission of HIV positive clients at SWO affiliated centers, non-segregation of HIV positive clients and children at these centers and prohibition of mandatory HIV testing of clients at admission, allowing for such testing only when services are to be extended, and only with the patient's consent.<sup>(27)</sup> There is, however, no such emphasis regarding other most-at-risk groups.

Furthermore, the draft "Policies on AIDS in the Islamic Republic of Iran" has stressed non-discriminatory service delivery to people with various lifestyle behaviors.<sup>(26)</sup> However, there is no emphasis on high risk groups. The government has 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 the Country Coordination mechanism (CCM),

the preparation of UNGASS report, authorization of Society of People Living with HIV, and support to peer groups in helping with harm reduction programs and with recovery of drug users.

Access to preventive measures and antiretroviral therapy is free of charge. Harm reduction services at DICs and mobile clinics, methadone treatment, all harm reduction services in prisons, and HIV testing and counseling are also free of charge. Although there is no legal prohibition for high risk groups to access preventive, treatment and care services, female sex workers and MSM have, apparently, less access to such services than drug users and inmates. There have also been some programs broadcasted by media for elimination of discrimination and stigma against people living with HIV/AIDS. There is no concrete mechanism to record, document and deal with cases of discrimination experienced by PLWHA or members of at-risk groups.

General progress in policies, legislation, and regulations for promotion and protection of AIDS-related rights of individuals has been evaluated as less than satisfactory for the years 2008-2009, while key achievements have included:

- 1- Establishment of Positive Clubs (associations of PLWHA) in various districts
- 2- Interaction with municipalities, city councils, Imam Khomeini Relief Fund and Social Welfare Organization

## **VII- Civil Society Participation**

In recent years, some civil society institutions have remarkably expanded their scope of work in HIV/AIDS control programs. The contribution of civil society institutions in strengthening political commitment of state officials and participation in development of national policies has been significant. Representative of civil society institutions have been greatly involved in various stages of planning and development of national AIDS policies. Their role has been particularly essential in implementation of harm reduction programs for high risk groups. They have also been involved in the development of the national monitoring and evaluation plan. An important role has been foreseen for civil society institutions in HIV prevention and care in the NSP, national AIDS funding and country reports on AIDS.

**B**

# 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 tools of measurement:** Monitoring of the programmes

**Tools of measurement used by this report:** Monitoring of 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 following data are acquired through monitoring of the programmes

1. What was the total number of blood units donated in the country? Each of the blood transfusion centres and blood screening laboratories screening donated blood for HIV provide data separately:
2. How many units of blood were donated in each blood transfusion centres/blood screening laboratories?
3. How many donated units were screened in the blood transfusion centres/blood screening laboratories?
4. Does the blood transfusion centres/blood screening laboratories follow documented standard operating procedures for HIV screening?
5. Does the blood transfusion centres/blood screening laboratories participate in an External Quality Assessment Scheme for HIV screening?

**Numerator:** Number of blood units donated and screened in the blood transfusion centers under a documented standard operation procedure and assessed by an External Quality Assessment Laboratory.

**Denominator:** Total number of donated blood units

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

#### Value of Indicator

- From 21 March 2008 to 21 March 2009, 100% of the donated blood units (Inclusive of 1,784,248 cases of blood donation) have been screened for HIV by Elisa tests (Table No.2)

- 100% of the donated bloods have been screened under a guaranteed quality assurance method.
- 100% of the laboratories who screened the donated bloods for HIV have followed a standard operating procedure.
- External supervision has been executed on 100% of the donated bloods being screened. A Central laboratory has supervised the operations of provincial laboratories 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 programme was started in the Islamic Republic of Iran in 1989. Since after the year 2003, the system which required mandatory replacement of the blood transfused into patients has been shelved. At the present 100% of the blood donations are voluntarily. Moreover since after the year 2003 confidential self-exclusion system is also being used. In addition some cases of blood donation are cancelled based on a brief history taking and physical examination by professional physician.

**Indicator changes compared with previous report:** On the previous report, likewise this one, the value of indicator was at the rate of 100% with no alteration compared with this report. It seems that serious attention is being paid to the measures to maintain the quality of the donated blood.

**Table 2: Blood donating statistics and characteristics of donated blood in different provinces**

<b>Province</b>	<b>Number of blood donors</b>	<b>Number of screened blood</b>	<b>Number of blood screened by an standard operating procedure</b>	<b>Number of blood screened by a laboratory assessed by an external evaluator</b>
East Azarbaijan	61481	61481	61481	61481
West Azarbaijan	44058	44058	44058	44058
Ardebil	23087	23087	23087	23087
Esfahan	99603	99603	99603	99603
Ilam	11524	11524	11524	11524
Booshehr	28078	28078	28078	28078
Tehran	415381	415381	415381	415381
Chaharmahal & Bakhtiyari	19906	19906	19906	19906
Khorasan Razavi	119337	119337	119337	119337
Khoozestan	115800	115800	115800	115800
Zanjan	17120	17120	17120	17120
Semnan	25065	25065	25065	25065
Sistan & Baluchestan	58515	58515	58515	58515
Fras	147953	147953	147953	147953
Ghazvin	24395	24395	24395	24395
Ghom	22606	22606	22606	22606
Kordestan	24241	24241	24241	24241
Kerman	63940	63940	63940	63940
Kermanshah	42848	42848	42848	42848
Kohguiluyeh & Boyer-Ahmad	21286	21286	21286	21286
Golestan	42249	42249	42249	42249
Gilan	67616	67616	67616	67616
Lorestan	32426	32426	32426	32426
Mazandaran	111775	111775	111775	111775
Markazi	31770	31770	31770	31770
Hormozgan	26712	26712	26712	26712
Hamadan	23820	23820	23820	23820
Yazd	36743	36743	36743	36743
North Khorasan	12807	12807	12807	12807
South Khorasan	12104	12104	12104	12104
<b>Total</b>	<b>1784246</b>	<b>1784246</b>	<b>1784246</b>	<b>1784246</b>

## Indicator 4.HIV Treatment: Antiretroviral Therapy

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

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

**Recommended tools of measurement:**

Numerator: Facility based antiretroviral therapy registers and ART cohort, analysis report forms, or programme monitoring tools.

Denominator: antenatal clinic surveillance or estimation models.

**Measurement tools used in this report:**

Numerator: Data acquired from antiretroviral therapy registry system

Denominator: Spectrum software for estimation

**Method of measurement recommended for this report:**

Numerator: Number of the adults and children with advanced HIV infection who are currently receiving antiretroviral therapy in accordance with the nationally approved treatment protocol.

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

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

**Value of indicator:** In January 2010, as a whole, only 9% of the total people who needed antiretroviral therapy received it.

Numerator: At the end of the year 2009, 1175 persons (Including 218 female and 957 male and 10 unknown genders) were receiving Antiretroviral Therapy. In January 2010, the number raised up to 1496 persons (Including 289 female and 1207 male).

Denominator: Estimated by Spectrum Software, in January 2010, the number of people who need ART across the country is 16,540 persons. In the Table No. 3 estimated number of those in need of ART is classified by age and gender.

**Table3: estimated number of those in need of ART 1n 2009 and 2010**

below 15 years			15 years and more		
male	female	Both genders	male	female	Both genders
130	110	240	11500	4800	163500

In February 2009, 6.8% of those in need of ART were receiving that. In the Table No.4, ART coverage is manifested disaggregated by age and sex.

**Table.4 coverage of antiretroviral therapy**

Age time	Below 15 years under treatment						15 years and more under treatment					
	Male		Female		Both genders		Male		Female		Both genders	
	number	coverage	number	coverage	number	coverage	number	coverage	number	coverage	number	coverage
20 March 2009	16	14.6%	24	21.8%	43	17.9%	920	8%	193	4%	1122	6.9%
20 Jan 2010	24	18.5%	30	27.3%	54	22.5%	1174	10.2%	258	5.4%	1432	8.8%

It is to be mentioned that the above figures have been extracted from the estimated number of those of need in ART. While if the identified number of cases are taken into account, the coverage will raise to more than 50%.

**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, efavirmez 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 national guideline 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 centres

which offer antiretroviral therapy services. So far 62 cities across 30 provinces have at least one centre 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. One of the significant problems during past two years was shortage of supply change of ARVs. Some actions are undertaken to change the situation to ensure the uninterrupted provision of ARVs. <sup>(2)</sup>

**Indicator changes compare with previous report:** Although the number of individuals who receive antiretroviral therapy has been raised by 80%, 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.

**Recommendations for indicator improvement:**

1. Strengthening the clinical information system
2. As indicated in the former reports 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:**

**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. Centres 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 physicians 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. In spite of undertaken efforts to provide CD4 counter over the country in recent years, its unavailability in some clinics offering antiretroviral drugs has resulted in less-than-perfect identification of patients who need antiretroviral therapy. Attempts are still being made to solve this problem.

**Suggestions**

1. Expansion of substitution maintenance treatment, when it comes to injecting drug users in order to boost their compliance to ART; and support for programs for people living with HIV (PLWH).
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 centres on behavioural disease, to offer antiretroviral therapy.
5. Strengthening clinical diagnosis skills and increasing availability of CD4 Counter.

## 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 tools of measurement:**

For the numerator: programme monitoring tools

For the denominator: Antenatal clinical surveillance or estimation model

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

Numerator: Data of the Antiretroviral Therapy registers system

Denominator: Estimation method

**Recommended method of measurement:**

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:**

Numerator: From 20 March 2008 to 20 March 2009, totally 25 pregnant women and from 21 March 2009 to 22 September 2009, 18 pregnant women received ART for prevention of mother-to-child transmission.

Denominator: Because there were no changes in the number of annual deliveries and surveillance showed no changes in HIV prevalence among pregnant women since 2004, that year's (2004) estimates (220 people) has been accepted as the estimated number of HIV-infected pregnant women in 2009.

Value of indicator has been 11.4% for time period beginning from 20 March 2008 to 20 March 2009. It is to be noted that all identified pregnant HIV positive women, received ART. This fact has been taken into account when constructing the indicator based on estimation of all identified and non-identified cases. All women who received ART to prevent mother-to-child HIV transmission were over 15 years old. 22 persons of them were on a 3-drug combination regimen, 1 person on 2-drug combination regimen and 1 person was on one drug regimen.

**Interpretation of indicator:** In light of the fact that some 25% of children born to HIV-positive mothers will be infected with the virus, <sup>(33)</sup> adoption of suitable mechanisms to identify and render services to HIV-positive women who are pregnant seems necessary. Nevertheless 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. The Second National Strategic Plan was to improve identification of HIV positive pregnant women by integration of HIV risk factor evaluation into the prenatal care program since last year. <sup>(11)</sup> Monitoring and evaluation of the second NSP indicates that evaluation of the pregnant women at HIV risk needs improvement from both quantity and quality point of view. <sup>(3)</sup>

**Recommendations for indicator improvement:** strengthening of serologic surveillance of pregnant women, particularly those who are married to HIV-positive men and women with high-risk behaviour.

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

**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 alongside the high coverage of this kind of services.
3. Integration of HIV risk factor evaluation into prenatal care programs

**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 especially for the spouses of male injecting drug users and prisoners.
2. Insufficient experience in HIV diagnosis of those who give service to the pregnant women in identification of the pregnant women at risk.
3. Insufficient availability of HIV diagnosis tests in some rural and remote regions.
4. HIV screening tests without consent and knowledge of the patients and unawareness of them of the test result in some of the private centres.

**Suggestions**

1. Centres that provide HIV testing and counselling services should be boosted in order to facilitate visits by women to such centres.
2. Training and dissemination of information is needed to raise awareness and create motivation among most-at-risk and high-risk women
3. Improving the private sectors proficiency, taking into account and implement risk factor assessment among pregnant women and offer

voluntary counselling and HIV testing in case the need is felt , or to refer them for diagnosis tests and medical treatment services.

## 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 tools of measurement:**

Nominator: Facility for ART registers and reports of Antiretroviral Therapy; programme monitoring tools

Denominator: Estimation method

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

As for the numerator, inquiries were sent to health departments of 41 Universities of Medical Sciences and Health Services. As for the denominator, estimates were at play.

**Recommended method of measurement:**

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**

Numerator: Recommended method

Denominator: Estimates on number of incident Tuberculosis in people living with HIV, based on the method of measurement described as follows.

**Value of indicator**

Numerator: Since 20 March 2008 Till 20 March 2009, 183 persons (Inclusive of 15 women and 168 men) living with HIV, treated because of TB. Among these people 120 persons (Inclusive of 12 female and 107 male) received co-management of TB and HIV. All of them were over 15 years.

Denominator: Following measures were taken for making estimation.

By taking into account the estimated number of the people who need Antiretroviral Therapy (16540 individuals), <sup>(10)</sup> prevalence of TB in similar population (30%) <sup>(34)</sup> and estimation of incident TB in people living with HIV who need ART (About 7.5%), <sup>(35)</sup> the number of 372 will be obtained.

Thus totally 32.3% of the individuals who needed co-management of HIV and TB could receive that.

**Table5: estimated coverage of HIV/TB Co-management in 2009**

Below 15 years									15 years or more								
male			female			Both genders			male			female			Both genders		
N	E	C	N	E	C	N	E	C	N	E	C	N	E	C	N	E	C
0	4	0	0	4	0	0	8	0	107	256	41.8%	13	106	12.7%	120	372	32.3%

N: Number under treatment  
 E: Estimated number in need of Treatment  
 C: Coverage

**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 (32.3%) as compared with other patients with advanced HIV infection (6.8%).

**Recommendations for indicator improvement:** Strengthening the clinical information system including applied studies; and closer links between TB and HIV reporting and register system.

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

**Strengths**

1. A very powerful TB registration system in the healthcare system and registration of identified HIV cases among TB patients in the system
2. Fairly close relations between officials of TB and AIDS programs in universities
3. Including active TB detection among HIV infected patients in national clinical guideline
3. Active TB detection in prisons and co-management of TB and HIV treatment in prisons and their links with the relevant centres across the society.

**Challenges**

1. 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.
2. Difficulties of identification of some advanced types of TB in the people living with HIV specially injecting drug users.
3. Centres giving services face both qualitative and quantitative restrictions in giving relevant services.
4. Uncertainty about compliance with the terms of antiretroviral treatment among injecting drug users, who account for a great percentage of patients

and insufficient experiments of the treatment system for improving adherence to treatment, dampens the willingness of doctors to prescribe medicine.

**Suggestions**

1. Boosting the link between AIDS and TB control programs in universities and in the provinces
2. Promoting the TB detection system and active TB patient detection among HIV-positive individuals
3. Boosting the HIV detection system in most-at-risk populations, especially injecting drug users
4. Expansion of harm reduction programs especially methadone maintenance treatment for injecting drug users in order to improve their compliance
5. Updating HIV-TB clinical guideline according to international evidences and conducting studies to provide evidences for indigenizing these 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 tools 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:** With respect to explanations mentioned below about the young people's sexual behaviour in the relevant indicators, high risk sexual behaviour among the young people in Iran is not infrequent. Therefore, awareness about the fact that what percentage of these young people consult for HIV, gets important. So taking these questions in the periodical investigations which is currently made by some organizations as National Youth Organization or in upcoming Demographic and Health Surveys (DHS) would be helpful.

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

### Strengths

1. Extensiveness of health care centres over the country
2. Developing of a guideline for HIV counselling and testing taking the regional needs of the country into account

### Challenges

1. The number of centres which conduct HIV testing and offer counselling is not enough.
2. Healthcare providers do not have enough knowledge about HIV testing and counselling.

3. The number of centres which offer health services to most-at-risk and high-risk populations are not enough.
4. The number of programs to raise awareness in the general population, especially at risk groups such as the youth, women and students, is not enough.
5. The stigma associated with the test and concerns about its confidentiality
6. Low risk perception among general population

**Suggestions**

1. Inclusion of HIV testing and counselling education in the training of health workers
2. Boosting public risk perception
3. De-stigmatizing 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 tools of measurement:** Behavioural Surveillance Survey or other special surveys

**Measurement tools 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.<sup>11)</sup> 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. Nevertheless the fact should be noted that prisoners do not form a homogenous population. Rather, they are imprisoned on different grounds and many of them do not display same 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 study conducted on a national scale in cooperation with research centres in 2007 were used.<sup>(7)</sup> 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. The provinces were chosen based on their geographical distribution as well as their inhabitants' ethnic identities. Three subgroups of IDUs considered for sampling in this study:

1. IDUs who visited health/treatment facilities
2. IDUs who visited Drop in Centres
3. Locations that IDUs regularly visited them for drug use/buy

For sampling, a two stage sampling method was used. At the first stage, these locations were coded. Each coded location was further defined based on different days of the week when IDUs are accessible. By this, a list of units based on time and location (primary sampling unit) were developed and then a random sample of primary sampling units was selected. At the second stage, individual respondents were chosen randomly from within each of the selected sampling units.

For female sex workers a study conducted by research centres in cooperation with the Diseases Management Centre (MOHME) in Tehran in 2007 were used. <sup>(36)</sup> Structured questionnaire were used to collect data. Sampling method was multi-stage cluster sampling. The sampling method was Multi-stage cluster sampling. Primary sampling units or clusters were selected based on sex workers' haunt, according to previous studies. These haunts includes streets, squares, parks, passages and shopping areas. In each cluster, a sex worker (primary sampling unit) was selected based on the interviews of key informants of the area and she was requested to introduce another two ones. Of the later one was selected randomly. Ultimate sample size was 287. The number of respondents in the survey stood at 280.

There was a study conducted among men who have sex with men in Tehran in 2007. This study included 101 individuals. Sampling method was RDS. <sup>(37)</sup> But it was not used to express the indicator value, because it was not representative of this group.

For prisoners, a study conducted over the prisons of the country was used. This study included 5530 prisoners in 27 prisons. <sup>(6)</sup> It was a part of an integrated biobehavioral surveillance system.

**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 most at risk population respondents who have been tested for HIV during the last 12 months and who know their results.

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

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

**Value of indicator:**

Value of indicator for injecting drug users in the year 2007 was 22.9% (702 out of 3060 individuals) and for the female sex workers in Tehran in the same year was 20.4% (57 out of 280 individuals). For the other most-at-risk groups and detailed description, please refer to figures presented in the tables no. 6 and 7 and section of interpretation.

**Interpretation of indicator:** A look at Tables 6 and 7 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

**Table6. Percentage of most-at-risk populations that have received an HIV test in the last 12 months and who know their results**

age group Population group	Less than 25 year			25 year and more			All ages	
	N1 Person	N2 Person	Rate of index	N3 Person	N4 Person	Rate of index		
Female sex worker ( Tehran )	24	105	22.9%	33	175	18.9%	20.4%	
MSM*	2	18	9.5%	7	65	8.0%	8.0%	
IRAN	Female IDU	3	18	16.7%	12	74	16.2%	16.3%
	male IDU	66	405	16.3%	621	2563	24.2%	23.1%
	The whole of IDU	69	423	16.3%	633	2637	24.0%	22.9%
Tehran	Female IDU	0	2	0	3	10	30.0%	25.0%
	male IDU	10	76	13.2%	126	600	21.0%	20.1%
	The whole of IDUs	10	78		129	610	21.1%	20.2%

N1 = Those who are under 25year 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 25year 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

**Table7. Percentage of prisoners that have received an HIV test in the last 12 months and who know their results**

age group Population group	Less than 25 year			25 year and more			Indicator Value for All ages
	N1 Person	N2 Person	Indicator Value	N3 Person	N4 Person	Indicator Value	
Male Prisoners	221	994	19.7%	1524	4124	34.8%	16.6%
Female Prisoners	15	43	34.2%	53	176	35.9%	31.0%

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.

N3: The number of the people who where 25 year or more and they have been asked.

N4: Total number of the people who where 25 year or more and they have been asked.

**Indicator changes compared with previous report:** Lack of new survey on the IDUs, makes evaluation of the changes impossible. Although provisions have been made for implementation of the second bio- behavioral survey on this group within integrated epidemiologic surveillance system. It will commence soon. <sup>(2)</sup> Another survey is being implemented on the female sex workers but the data have not been finalized yet. <sup>(2)</sup> That make evaluation of

changes on this group impossible as well. Regarding the prisoners, improvement on the former report is considerable. Although comparison must be marked by excessive care, for, former report took use of small scale survey over the Tehran province. But this report took use of the first biobehavioral survey within integrated epidemiologic surveillance system.

**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**

#### **Strengths**

1. Cohesive studies involving IDUs have been conducted between release of the previous report and this one and similar reports has been commenced on the other HIV at risk groups.
2. Increasing of IDUs' access to the current services and creating new possibilities for access of the the women at risk to the services between release of the former report and this one.
3. Free Prevention services such as voluntary counselling and testing (VCT) at the above mentioned centers.
4. Existence of widespread laboratory networks, being able to conduct ELISA tests.
5. Existence of widespread primary healthcare network which makes integration of these services possible.

#### **Challenges**

1. Limited access to high-risk groups due to legal, cultural and social limitations and of course the stigma associated with the HIV infection
2. Failure of the private sector to actively contribute to VCT services
3. Limitations in organizational flow chart of the triangular clinics.

#### **Suggestions**

1. Bolstering of social marketing for VCT services.
2. Conducting a study to pave the way for VCT marketing
2. Launching a rapid test system to spread and facilitate access to VCT in different service giving centres
3. Tapping into the potential of the private sector in the fields of VCT
4. 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 centres
5. Extension of the female specific Harm Reduction centres to raise accessibility of this group to the services
6. Supporting NGOs which deal with children and women at risk population To enable and inspire more number of the people at risk for giving services
7. Bolstering organizational flow charts of the triangular clinics in society and prisons

## Indicator9. 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 tools of measurement:** Behavioural Surveillance Survey or other special surveys

**Measurement tools 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.<sup>11)</sup> 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. Nevertheless the fact should be noted that prisoners do not form a homogenous population. Rather, they are imprisoned on different grounds and many of them do not display same 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 study conducted on a national scale in cooperation with research centres in 2007 were used.<sup>(7)</sup>

For female sex workers a study conducted by research centres in cooperation with the Diseases Management Centre (MOHME) in Tehran in 2007 were used.<sup>(36)</sup> There was a study conducted among men who have sex with men in Tehran in 2007.<sup>(37)</sup> But it was not used to express the indicator value, because it was not representative of this group. For prisoners, a study conducted over the prisons of the country was used. For More detailed description of these studies please refer to indicator no.8.

**Recommended method of measurement:** Respondents in each of the most-at-risk groups are 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, drop in centers 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:** for conclusion of the above mentioned surveys, some specific questions of value measurement issue were asked, result of which in indicated as under.

**Value of indicator:** Tables 8 and 9 feature the value of indicator for each group of most-at-risk populations.

**Table 8. Proportion of most-at-risk population who know where they can go if they wish to receive an HIV test**

age group	Less than 25 year			25 year and more			Indicator value All ages	
	N1 Person	N2 Person	Indicator value	N3 Person	N4 Person	Indicator value		
The group under the expose of the most at risk								
Female sex worker (Tehran )	60	122	41.0%	101	158	63.9%	57.5%	
MSM**	3	18	8.7%	21	65	31.8%	28.9%	
Prisoners	Male	513	996	44.3%	2459	4130	53.5%	51.9%
	Female	29	43	70.6%	113	169	73.7%	73.1%

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.

**Table9. Proportion of most-at-risk-population who have been given condoms in the last twelve months**

age group		Less than 25 year			25 year and more			All ages
		N1 Person	N2 Person	Rate of index	N1 Person	N2 Person	Rate of index	
The group under the expose of the most at risk	Female IDU	1	19	55	11	72	15.3%	13.2%
	male IDU	24	423	5.7%	300	2539	11.8%	10.9%
	The whole of IDUs ( male & female )	25	442	5.7%	311	2611	11.9%	11%
Prisoners	Male prisoners	71	481	31.9%	754	2426	47.6%	45.6%
	Female prisoners	9	17	87.8%	25	94	48.9%	55.9%

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

N1: The number of the people who where under the age 25 year and they have been condom in the last 12 month.

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 they have been condom in the last 12 month.

N4: Total number of the people who where 25 year or more and they have been asked.

As the tables show, not all of the questions were asked on the studies.

As to the of HIV counselling and test centres , till the year 2008 , in 204 out of 336 cities across the country (61%) at least one centre or station was launched by Universities of Medical sciences for HIV counselling and test(Totally 361 centres) .<sup>(8)</sup> This ratio has been 26% in the year 2005.<sup>(6)</sup>

Amongst that centres, 86 centres are offering simultaneously such advanced services as antiretroviral treatment. <sup>(8)</sup>. In 85 prisons of the country, one HIV counselling centre has been launched by Prisons Organization. <sup>(8)</sup> Number of these counselling centres in the same year of 2008 increased at the rate of 67% in comparison with the rate of 2005.

As well, till the year 2008, 32 HIV counselling centres were also established by Red Crescent Community . But since end of this year some of the centres affiliated to Red Cross Organization stopped their activities. <sup>(8)</sup> Blood Transfusion Organization was also offering such services in 21 centres of her own as well as two nongovernmental organization who have been active in that field. <sup>(8)</sup>

According to the information obtained from Drug Control Headquarters, in the year 2008, totally 172 Drop in centres existed across the country for giving services to the IDUs. 274 outreach team are offering harm reduction

services to the IDUs. According to first BSS among IDUs, those who injected drug during the last month before the study, 48.6% most of the time bought their syringe and needles from pharmacies. 21% (642 out of 3053) and 6.6% (202 out of 3053) received their syringes and needles most of the time from outreach workers and DICs respectively. <sup>(7)</sup>

As well 1569 centres for addiction treatments, including Methadone Maintenance treatment, Buprenorphine maintenance treatment and detoxification centres existed in the same year. At the end of the year 2008, a total number of 166711 drug users received methadone maintenance treatment through centers under supervision of Universities of Medical Science, State Welfare Organization, Prisons Organization and Private Sectors. <sup>(39)</sup> This figure in the year 2006 was 57000 individuals on the former report <sup>(9)</sup> so presents a 2.9 folds increase. At the same time, 25407 individuals in the prisons across the country were receiving Methadone Maintenance treatment. <sup>(9)</sup> According to first BSS among IDUs, 33% of study population were under MMT at the time of study. <sup>(39)</sup>

**Interpretation of indicator:** After a limited study featuring 280 female sex workers, the responses of 280 of them were accepted in working out the indicator. <sup>(36)</sup> 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. <sup>(37)</sup> 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 of MSM.

**Indicator changes compared with the previous report:** Lack of new survey on the IDUs, makes evaluation of the changes impossible. Although provisions have been made for implementation of the second bio- behavioral survey on this group within epidemiologic surveillance system. It will commence soon. <sup>(2)</sup> Another survey is being implemented on the female sex workers but the data have not been finalized yet <sup>(2)</sup> that make evaluation of changes on this group impossible as well. Regarding the prisoners, improvement on the former report is considerable. Although comparison must be marked by excessive care, for, former report took use of small scale survey over the Tehran province. But this report took use of the first biobehavioral survey within integrated epidemiologic surveillance system.

**Suggestions for indicator improvement:** Bolstering and full application of biobehavioural surveillance to most-at-risk groups and establishment of such surveys on other groups at risk in the period between the former and this report.

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

### **Strengths**

1. Cohesive studies involving most-at-risk populations and establishment of new surveys on the other groups at risk within the period between release of the former report and this one.
2. Bolstering of the drug users' access to the existing services and establishment of new possibilities for access of the female at risk to the services in the period between the former and this report.
3. A considerable part of the services such as prevention services including free distribution of sterile syringe and needle as well as cheap methadone maintenance treatment in the service giving centres
4. A vast primary healthcare network providing possibilities of integration of such services.

### **Challenges**

1. Limited access to high-risk groups due to legal, cultural and social limitations and of course the stigma associated with HIV.

### **Suggestions**

1. Extension of the female harm reduction centres to raise accessibility of this group to the services
2. Supporting NGOs which deal with children and women at risk population To enable and inspire more number of the people at risk for giving service
3. Bolstering organizational flow charts of the triangular clinics in society and prisons
4. Supporting NGOs in the field of giving service to the most at risk groups
5. Increasing of drop in centres and of mobile teams
6. Planning and executing the plans in the field of prevention and surveillance of the other groups most at risks

## Indicator 10. Support for Children Affected by HIV and AIDS

**Definition of indicator:** Percentage of orphaned and vulnerable children aged 0-17 whose households received free basic external support in caring for the child

**Purpose of Indicator:** To assess progress in providing support to households that are caring for orphaned and vulnerable children aged 0-17

**Measurement Tools Recommended:** Population based survey

**Measurement tools used in this report:** Considering that there has been no survey conducted on this indicator, data acquired by Social Welfare Organization was used to portray a general picture about the indicator

**Recommended Method of Measurement:** By referring to the homes and after all orphaned and vulnerable children aged 0-17 in the houses have been identified, the household heads are asked the following four questions about the types and frequency of support received, and the primary source of the help for each orphan and vulnerable child, Each question is to be asked for each child.

- 1- Has this household received medical support, including medical care and /or medical care supplies, within the last 12 months?
- 2- Has this household received school-related assistance, including school fees, within the last 12 months? (This question is to be asked only of children aged 5-17)
- 3- Has this household received emotional/psychological support, including counseling from a trained counselor and/or emotional/spiritual support or companionship within the last three months?
- 4- Has this household received other social support including socioeconomic support and /or instrumental within the last three months?

**Numerator:** Number of 0-17 aged orphaned and vulnerable children who live in households that received at least one of the four types of support for each child

**Denominator:** Total number of orphaned and vulnerable children aged 0-17

**Value of Indicator:** Impossible to work out.

In the Islamic Republic of Iran, the government is obliged to provide support to all those children who have lost their both parents for any reason or the child with non-appropriate household head. At the present Welfare Organization is in charge of such services. Some of these children are HIV infected and some of them have lost their parents of this disease. These

children receive such extra services as supportive, social, emotional and medical services in addition to the general supervisory services.

Such children are not separated but are referred to Ministry of Health and Medical Education to receive medical counseling, and health care and medical treatment services. The children living with HIV receive the same services as the other children under coverage do. Moreover necessary actions are taken to adopt these children to the volunteer contemporary parents who themselves might be affected by HIV.

**Indicator changes comparing with the former report:** Indicator was not worked out in the previous report so comparison gets impossible

**Suggestions for improvement of the indicator:** Including the relevant questions in the current population based surveys such as DHS.

## Indicator 11. 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 tools:** School survey or education programme review

**Measurement tools used by this report:** Reviewing HIV education programs of Ministry of Education

**Recommended method of measurement:** Principals/heads of a nationally-representative sample of schools are asked: 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 survey. 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 and their teaching text were reviewed.

**Value of Indicator:** The review of the curriculum showed that at present no specific HIV education is included in Life Skills program of the schooling. Alongside there are some HIV teachings at schools. According to the results of the national program monitoring, in the year 2008, for covering each 1000 individual groups of primary, junior high school and senior high school students, respectively 1.1, 1.5 and 1.5 coaches got HIV training that is not a considerable change in comparison with the figures of the year 2007. In 2008, correspondingly 2%, 4% and 5% of the primary, junior high school and senior high school students received relevant trainings. These figures were respectively 1%, 2% and 3% in 2007, evidencing 2 folds increase of training coverage of the schools in 2008 in comparison with that of the previous year. <sup>(8)</sup>

**Interpretation of indicator :** 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 excitements, 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.

**Indicator changes compared with the previous report:** Life Skills teaching program started at primary and junior high schools in 1998. But, this process should speed up. It is also recommended to include life skill based HIV education in the program.

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

**Strengths**

1. Beginning to offer the life skill course to students at some schooling grades
2. Training of the teachers on HIV and skill-based teaching

**Weaknesses**

1. Insufficient coverage of the course in all grading and all schools
2. Lack of direct education on the ways to prevent sexually transmission of HIV

**Challenges**

1. Concerns of some authorities in charge of education about the probable adverse effects of training on prevention of sexually transmitted diseases
2. 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;



**C**

# **Knowledge and Behaviour indicators**

## Indicator 12. Orphans: School Attendance

**Definition of Indicator:** Current school attendance among orphans and non-orphans aged 10-14

**Purpose of Indicator:** To assess progress towards preventing relative disadvantage in school attendance among orphans and non-orphans

**Recommended Measurement Tools:** Household based survey

**Measurement tools used by this report:** A society based survey was utilized to work out this indicator. Based on multiple cluster random sampling, a survey was implemented in 2008 on 2000 teen aged and young individuals aged 10-24 with record of over one year residence in the cities of Zahedan (Shirabad, Karimabad), Tehran (Ekbatan, yaftabad), Khoramabad (Shamshirabad), Mashad (Khajeh Rabie), Ghesm, Bandar Abbas and Bam. Knowledge scale of the young people was measured by a standard questionnaire. In this way target data about the young people aged 15-24 was acquired. <sup>(39)</sup>

**Recommended Method:** For every child aged 10-14 living in a household, a household member is asked:

1. Is this child's natural mother still alive? If yes, does she live in the household?
2. Is this child's natural father still alive? If yes, does he live in the household?
3. Did this child attend school at any time during the school year?

**Numerator:** Number of children both of whose parents are alive, who are living with at least one parent and who attend school

**Denominator:** Number of children both of whose parents are alive who are living with at least one parent

**Method of Measurement used by this report:** The same recommended method

**Value of Indicator:** 92.4% of the children survey in this report and aged 10-14 with at least one parent alive attended school at the time of the study. Due to the small number of those children who had lost both parents, it is impossible to give reliable figures for this group (table 10).

**Table10: Current school attendance among orphans and non-orphans aged 10-14**

Parents' condition Sex	N1(person)	N2(person)	Indicator Value	N3(person)	N4(person)	Indicator Value
Male	1	1	-	295	320	92.2%
Female	2	3	-	265	286	92.7%
Total	3	4	-	560	606	92.4%

N1: Number of children who have lost both parents and who attend school

N2: Number of children who have lost both parents

N3: Number of children both of whose parents are alive, who are living with at least one parent and who attend school

N4: Number of children both of whose parents are alive who are living with at least one parent

**Interpretation and analysis:** Scope of sample in this survey has been 2000 individual and study conducted only in urban regions excluding the rural areas. <sup>(39)</sup> Therefore interpretation of the results implies carefulness.

**Changes of indicator in comparison with the former report:** In the former report, this indicator was not worked out so comparison is impossible.

## Indicator 13. 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 tools:** Population-based surveys

**Measurement tools used by this report:** A society based survey was utilized to work out this indicator. Based on multiple cluster random sampling, a survey was implemented in 2008 on 2000 teen aged and young individuals aged 10-24 with record of over one year residence in the cities of Zahedan (Shirabad, Karimabad), Tehran (Ekbatan, yaftabad), Khoramabad (Shamshirabad), Mashad (Khajeh Rabie), Ghesm, Bandar Abbas and Bam. Knowledge scale of the young people was measured by a standard questionnaire. In this way target data about the young people aged 15-24 was acquired. <sup>(39)</sup>

**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:** The same as recommended.

**Value of indicator:** The 15-24 aged young people surveyed to measure this indicator had correct knowledge: 92.1% about transmission of infection through shared syringe and needle, 82.4% about infection through sexual intercourse without using condom and respectively 42.2% and 45.9% about the point that one will not get HIV through mosquito bite or sneeze or cough (Table No 11). As a whole, average grade of correct knowledge of the respondents is 62.55% of the maximum defined grade of 100. Just 15.6% of the male and 17.5% of female young individuals gave correct response to all of the questions. There was not a

significant difference between level of knowledge among the female and male young respondents. 87% were of the opinion that relation between HIV and sexual issues must be openly taught and 86% of the opinion that HIV education must be started at schools. The most important data sources of male group of the survey on HIV, has been schools (45.2%), broadcasting 44%) and friends and individuals of the same ages (27.5%).<sup>(39)</sup> The figure is presented in table 11:

**Table11. Knowledge of general population about prevention of HIV (15-45 year)**

Title	number of individuals		number of correct answers (person)	Total number of people who have been under the question (person )
	gender	age group		
Knowledge about reduced risk of HIV transmission be by having sex with only one uninfected partner who has no other partners	female	15-19 years	266	372
		20-24 years	213	277
	male	15-19 years	298	428
		20-24 years	244	326
	Total		1021	1403
Knowledge about reduced risk of getting HIV by using a condom every time they have sex	female	15-19 years	235	372
		20-24 years	201	277
	male	15-19 years	330	428
		20-24 years	271	326
	Total		1037	1403
Knowledge about possibility of healthy-looking of a person with HIV	female	15-19 years	222	372
		20-24 years	182	277
	male	15-19 years	268	428
		20-24 years	229	326
	Total		901	1403
Knowledge about impossibility of getting HIV from mosquito bites	female	15-19 years	167	372
		20-24 years	117	277
	male	15-19 years	192	428
		20-24 years	118	326
	Total		594	1403

Knowledge about impossibility of getting HIV by sharing food with someone who is infected	female	15-19 years	217	372
		20-24 years	173	277
	male	15-19 years	221	428
		20-24 years	182	326
	Total		793	1403
correct answer to all five questions		15-19 years	62	372
		20-24 years	51	277
		15-19 years	68	428
		20-24 years	48	326
	Total		229	1403

**Interpretation and analysis of indicator:** The study was conducted on 2000 individuals to construct this indicator but coverage was only to the urban districts and did not extended to the rural regions. <sup>(39)</sup>

**Changes of indicator in comparison to the former report:** By comparing figures of this report with that of the former one it seems that general knowledge about effects of using condom in HIV prevention as well as effects of syringe and needle has improved although it is still far from the desired figures. But there was not considerable increase in general knowledge on the infected persons who might be healthy. Lack of knowledge about major misconceptions may contribute to stigma and discrimination.

**Recommendations for Indicator Improvement:** Developing population based survey among the target groups or including relevant questions in the current surveys implemented by some organizations, such as the National Youth Organization

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

##### **Strengths**

1. High rate of literacy countrywide (over 80%) <sup>(40)</sup>
2. Ministry of Education is taking more attention to the relevant HIV education at schools.
3. Religious edicts (fatwa) issued by many high rank clerics authorizing the education on HIV prevention measures <sup>(41)</sup>
4. Nationwide coverage of National Broadcasting and establishing more accessibility to information technology.

**Challenges**

1. High number of young population
2. Negative attitude of some policy makers and decision makers about offering education on HIV prevention measures
3. Cultural restriction of mass media towards raising awareness on preventive measures of sexually transmission of HIV

**Recommendations for Indicator Improvement:**

1. 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
2. Reinforcement of the relevant HIV training at schools from quantity and quality point of view
3. More involvement of the mass media
4. Permanency of offering planned frequent information package
5. Creating variety in the manners of offering educational services such as utilizing peer group educations

## Indicator 14. 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 tools of measurement:** Special behavioural surveys

**Measurement tools 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. <sup>(11)</sup> 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. Nevertheless the fact should be noted that prisoners do not form a homogenous population. Rather, they are imprisoned on different grounds and many of them do not display same 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 study conducted on a national scale in cooperation with research centres in 2007 were used. <sup>(7)</sup>

For female sex workers a study conducted by research centres in cooperation with the Diseases Management Centre (MOHME) in Tehran in 2007 were used. <sup>(36)</sup> There was a study conducted among men who have sex with men in Tehran in 2007. <sup>(37)</sup> For prisoners, a study conducted over the prisons of the country was used. <sup>(6)</sup> For More detailed description of these studies please refer to indicator no.8.

**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 12 to 16 represent the value of indicators for the high risk groups.

**Table 12: Knowledge of the IDUs in Iran about HIV prevention**

age group  Title	Less than 25 year						25 year and more						proportion of correct answer in all ages and both gender
	The number of correct answer (person)		Total number of answerer (person)		The proportion of correct answer		The number of correct answer (person)		Total number of answerer (person)		The proportion of correct answer		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
Knowledge about reduced risk of HIV transmission be by having sex with only one uninfected partner who has no other partners	299	12	405	18	73.8%	66.7%	2172	51	2563	74	84.7%	69.0%	82.8%
Knowledge about reduced risk of getting HIV by using a condom every time they have sex	324	12	405	18	80.0%	66.7%	2156	54	2563	74	84.1%	73.0%	83.2%
Knowledge about possibility of healthy-looking of a person with HIV	289	9	405	18	71.4%	50.0%	2000	44	2563	74	78.9%	59.5%	76.5%
Knowledge about impossibility of getting HIV from mosquito bites	141	9	405	18	34.8%	50.0%	1145	35	2563	74	44.7%	47.3%	43.5%
Knowledge about impossibility of getting HIV by sharing food with someone	235	13	405	18	58.0%	72.2%	1732	41	2563	74	67.6%	55.4%	66.0%

who is infected													
answer to all five questions	67	1	405	18	16.5%	5.6%	647	13	2563	74	25.2%	17.6%	23.7%

**Table 13: the knowledge of IDU in Tehran about HIV prevention**

age group  Title	Less than 25 year						25 year and more						The proportion of correct answer in all ages and both gender
	The number of correct answer (person)		Total number of answerer (person)		The proportion of correct answer		The number of correct answer (person)		Total number of answerer (person)		The proportion of correct answer		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
Knowledge about reduced risk of HIV transmission be by having sex with only one uninfected partner who has no other partners	60	2	76	2	80.0 %	100%	516	9	600	10	86.0 %	90.0%	85.3%
Knowledge about reduced risk of getting HIV by using a condom every time they have sex	66	1	76	2	86.4 %	50.0%	529	10	600	10	88.2 %	100%	88.1%
Knowledge about possibility of healthy-looking of a person with HIV	59	1	76	2	77.3 %	50.0%	478	9	600	10	79.7 %	90.0%	79.5%
Knowledge about impossibility of getting HIV from mosquito bites	34	0	76	2	44.7 %	0	394	6	600	10	65.7 %	6%	62.2%
Knowledge about impossibility of getting HIV by sharing food with someone who is infected	47	2	76	2	61.8 %	100%	391	9	600	10	65.2 %	90.0%	62.3%
answer	13	0	76	2	17.1	0	186	5	600	10	31.0	50.0%	29.3%

to all five questions					%						%		
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**Table 14. Female sex workers' knowledge about HIV prevention**

age group  Title	Less than 25 year			25 year and more			The proportion of correct answer in all ages
	The number of correct answer (person)	Total number of answerer (person)	The proportion of correct answer	The number of correct answer (person)	Total number of answerer (person)	The proportion of correct answer	
Knowledge about reduced risk of HIV transmission be by having sex with only one uninfected partner who has no other partners	45	122	36.9%	52	158	32.9%	31.1%
Knowledge about reduced risk of getting HIV by using a condom every time they have sex	78	122	63.9%	107	158	67.7%	66.1%
Knowledge about possibility of healthy-looking of a person with HIV	83	122	68.0%	76	158	48.1%	56.8%
Knowledge about impossibility of getting HIV from mosquito bites	51	122	41.8%	74	158	46.8%	44.6%
Knowledge about impossibility of getting HIV by sharing food with someone who is infected	75	122	61.5%	106	158	67.1%	64.6%
Answer to all five questions	12	122	9.8*	10	158	6.3%	7.9%



sharing food with someone who is infected													
Answer to all five questions	172	5	1040	44	12.4	9.3	801	16	4264	181	15.3	10.9	14.6

**Table 16: the knowledge of MSM about HIV prevention**

age group  Title	Less than 25 year			25 year and more			The proportion of correct answer in all ages
	The number of correct answer (person)	Total number of answerer (person)	The proportion of correct answer	The number of correct answer (person)	Total number of answerer (person)	The proportion of correct answer	
Knowledge about reduced risk of HIV transmission be by having sex with only one uninfected partner who has no other partners	13	18	66.8%	47	65	66.0%	65.9%
Knowledge about reduced risk of getting HIV by using a condom every time they have sex	12	18	53.3%	53	65	80.1%	71.7%
Knowledge about possibility of healthy-looking of a person with HIV	10	18	45.1%	47	65	79.2%	68.6%
Knowledge about impossibility of getting HIV from mosquito bites	5	18	22.1%	13	65	17.7%	19.0%
Knowledge about impossibility of getting HIV by sharing food with someone who is infected	6	18	42.2%	37	65	58.7%	53.5%
answer to all five questions	2	18	4.5	4	65	11.7%	5.3%

\* For earning (requiring) the relative (proportion) in this group it has been used weighted.

**Interpretation and Analysis:** It should be noted that result of the survey which was conducted on the sex workers, covers only a part of Female Sex Workers in Tehran, cannot be applied to the whole country.

In addition, the target group of MSM was too restricted and specific, the majority had a history of drug using in their record and a considerable number of them lacked a permanent place for living. Moreover, the sample group was too small to apply the finding of the survey to all MSM. <sup>(37)</sup>

Comparison made between level of knowledge amongst most-at-risk population made it known that injecting drug users and prisoners 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. Besides, it seems that 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.

**Changes of indicator:** Due to lack of a new survey on IDUs, evaluation of the changes gets impossible. Although necessary provisions has been made for imminent commencement of the second biobehavioral surveys within the framework of the integrated epidemiologic surveillance system. <sup>(2)</sup> Another survey is under construction on the female Sex Workers but the relevant data have not been finalized yet <sup>(2)</sup> which makes comparison impossible. Regarding the prisoners, considerable improvement was found out. In spite of this, comparison implies much more care because the former report implemented with a restricted scope across Tehran. But the new report is taking use of the first biobehavioral survey within the framework of epidemiologic surveillance system.

**Recommendations for Indicator Improvement:** Reinforcement and full implementation of integrated biobehavioral surveillance system on the target groups of most at risk in a scale that can be applicable to the whole country.

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

#### **Strengths**

1. Consistent surveys on the target groups of IDUs and establishment of the same surveys on other groups at risk during the reporting periods.
2. Increasing accessibility of the IDUs to the existing services and establishment of the same access for the women at risk during the reporting periods
3. A relatively extensive network of primary health care services, to provide possibility of integration of such services.

#### **Challenges**

Limited access to some of the most at risk groups, due to current legal, cultural, and social restrictions and stigma and discrimination against people living with HIV

#### **Recommendations**

1. Extension of the women specific harm reduction centres to increase their access to the services
3. Strengthening of the NGOs in the field of offering service to the women and children at risk
4. Reinforcement and attraction of wider participation of the individuals who belong to the at risk population in giving service
5. Supporting the NGOs in their services to the most at risk population
6. Increasing the number of DICs and outreach teams

## Indicator 15. 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

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

**Recommended measurement tools:** Population-based surveys

**Measurement tools used by this report:** A society based survey was utilized to work out this indicator. Based on multiple cluster random sampling, a survey was implemented in 2008 on 2000 teen aged and young individuals aged 10-24 with record of over one year residence in the cities of Zahedan (Shirabad, Karimabad), Tehran (Ekbatan, yaftabad), Khoramabad (Shamshirabad), Mashad (Khajeh Rabie), Gheshm, Bandar Abbas and Bam. Knowledge scale of the young people was measured by a standard questionnaire. In this way target data about the young people aged 15-24 was acquired. <sup>(39)</sup>

**Recommended method of measurement:** Following questions are asked from the respondents

1. Have they ever experienced sexual intercourse?
2. In case of positive answer, they are asked that how old they were at the time of their first sexual intercourse?

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:** The same recommended.

**Value of indicator:** The study showed that 6% (52 out of 754 Male) and 1% (7 out of 649 Female) have had sexual intercourse at the age under 15 (table 16). As well 16.6% (125 out of 754 male) and 2.8% (18 out of 649 female) have had sexual intercourse at the age under 18 (Table 17).

**Interpretation and analysis of the indicator:** Scope of the sampling in this report covered 2000 individuals and survey was conducted only in urban regions, excluding the rural areas. <sup>(39)</sup> On the other side, due to cultural restriction, questions were raised only on having or not having sexual relationship without referring to the kind of that. However the respondents seem to having got fully justified about the question and their manner of giving response to the questions on condom use is a proof that they have got

right concept of the question. Nevertheless one should be careful for interpretation of the result.

**Table16: History of before the age of 15**

Age Sex	15-19 year			20-24year		
	History of the sexual intercourse	Total number of sample	Proportion (%)	History of the sexual intercourse	Total number of sample	Proportion (%)
Female	6	372	1.6	1	277	0.4
Male	41	428	9.5	12	326	3.6

**Table17: History of before the age of 18**

Age Sex	15-19 year			20-24year		
	History of the sexual intercourse	Total number of sample	Proportion (%)	History of the sexual intercourse	Total number of sample	Proportion (%)
Female	15	372	4.3	3	277	1.2
Male	73	428	17.1	52	326	15.9

**Interpretation and analysis of the indicator:** Scope of the sampling in this report covered 2000 individuals and survey was conducted only in urban regions, excluding the rural areas. <sup>(39)</sup> On the other side, due to cultural restriction, questions were raised only on having or not having sexual relationship without referring to the kind of that. However the respondents seem to having got fully justified about the question and their manner of giving response to the questions on condom use is a proof that they have got right concept of the question. Nevertheless one should be careful for interpretation of the result.

**Changes of the indicator in comparison with the former report:** Generally it seems that sexual relationship is common. Comparison of the figures of this report with that of the former one exhibits a slight change in beginning of sexual relationship in male and almost no change in the female. But what seems noteworthy in this record is that number of beginning sexual relationship under the age of 15 as well as under 18 in the group of 15-19

aged individuals is higher than the 20-24 aged group. <sup>(39)</sup> This is an alarm giving point which necessitates implementing promotion safer sex programs in a vast scale.

**Recommendations for improvement of the indicator:**

1. Making coordination between the organizations that are in charge of youth affairs and AIDS Control Programs in the field of strengthening of applicable studies.
2. To set up organized periodic behavioral studies on the target group and include relevant questions in the current studies which is under process by some of the organizations as National Youth Organization.

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

**Strengths**

1. Religious beliefs, traditions and social relations can help drive a certain extent of abstinence in society.

**Challenges**

1. Cultural limitations in relation to openly providing necessary educations
2. Ambiguous educational policies and the point that not all of the authorities provide support to the safer sex education
3. Life skills education has yet to be scaled up
4. Existence of a denial sense against the problems that are threatening the youth
5. The population is young
6. Extensive communicational networks which can leave destructive effects on the sexual behavior of the youth

**Suggestions**

1. Offering HIV based skill-based education at schools
2. Making use of mass media to promote safer sex
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 16. 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 tools of measurement:** Population-based surveys

**Measurement tools used by this report:** A society based survey was utilized to work out this indicator. Based on multiple cluster random sampling, a survey was implemented in 2008 on 2000 teen aged and young individuals aged 10-24 with record of over one year residence in the cities of Zahedan (Shirabad, Karimabad) , Tehran(Ekbatan,yaftabad), Khoramabad(Shamshirabad), Mashad(Khajeh Rabie) , Ghesm, Bandar Abbas and Bam . Knowledge scale of the young people was measured by a standard questionnaire. In this way target data about the young people aged 15-24 was acquired. <sup>(39)</sup>

**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:** The same as recommended except for the age of the studied people that has been 24 years on this study. <sup>(39)</sup>

**Value of indicator:** 11.2% of the boys and 1.2% of the girls have had sex with more than one partner (table 18).

**Table18: History of higher risk sex**

Age	15-19 year			20-24year		
	N1	N2	Proportion(%)	N1	N2	Proportion(%)
Female	5	372	1.3	3	277	1.8
Male	46	428	10.7	46	326	14.1

N1: Number of respondents who have had sexual intercourse with more than one partner in the last 12 months

N2: Number of all respondents

**Interpretation and analysis of the indicator:** Scope of the sampling in this report covered 2000 individuals and survey was conducted only in urban regions, excluding the rural areas <sup>(39)</sup>. On the other side, due to cultural restriction, questions were raised only on having or not having sexual relationship without referring to the kind of that. However the respondents seem to having got fully justified about the question and their manner of giving response to the questions on condom use is a proof that they have got right concept of the question. Nevertheless one should be careful for interpretation of the result.

**Indicator changes compared with previous report:** Lack of any figure for the indicator value on the former report makes comparison impossible.

**Suggestions for indicator improvement:** to set up organized periodic behavioral studies on the target group and include relevant questions in the current studies which is under process by some of the organizations as National Youth Organization.

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

**Strengths**

1. Religious beliefs, traditions and social relations can help drive a certain extent of abstinence in society.

**Challenges**

1. Cultural limitations in relation to openly providing necessary educations
2. Ambiguous educational policies and the point that not all of the authorities provide support to the safer sex education
3. Life skills education has yet to be scaled up
4. Existence of a denial sense against the problems that are threatening the youth
5. The population is young
6. Extensive communicational networks which can leave destructive effects on the sexual behavior of the youth

**Suggestions**

1. Offering HIV based skill-based education at schools
2. Making use of mass media to promote safer sex
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 17. 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 tools of measurement:** Population-based surveys

**Measurement tools used by this report:** A society based survey was utilized to work out this indicator. Based on multiple cluster random sampling, a survey was implemented in 2008 on 2000 teen aged and young individuals aged 10-24 with record of over one year residence in the cities of Zahedan (Shirabad, Karimabad), Tehran (Ekbatan, yaftabad), Khoramabad (Shamshirabad), Mashad (Khajeh Rabie), Ghesm, Bandar Abbas and Bam. Knowledge scale of the young people was measured by a standard questionnaire. In this way target data about the young people aged 15-24 was acquired.<sup>(39)</sup>

**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:** The same as recommended except for the age of the studied people that has been 24 years on this study.<sup>(39)</sup>

**Value of indicator:** 55.4% of men aged 15-24 who had sex with more than one partner in the past 12 months leading to the study, have used condom in their last sexual intercourse. As to the women due to small figures extracted, it is not possible to represent a reliable ratio (table 19).

**Table19: History of condom use during higher risk sex**

Age	15-19 year			20-24year		
	N1	N2	Proportion	N1	N2	Proportion
Female	3	5	-	2	3	-
Male	24	46	52%	27	46	58.6%

N1: Number of respondents 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

N2: Number of respondents who have had sexual intercourse with more than one partner in the last 12 months

**Interpretation and analysis of the indicator:** Scope of the sampling in this report covered 2000 individuals and survey was conducted only in urban regions, excluding the rural areas. <sup>(39)</sup> On the other side, due to cultural restriction, questions were raised only on having or not having sexual relationship without referring to the kind of that. However the respondents seem to having got fully justified about the question and their manner of giving response to the questions on condom use is a proof that they have got right concept of the question. Nevertheless one should be careful for interpretation of the result.

**Indicator changes compared with previous report:** The fact that there was no value for the indicator in the previous report made 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:**

**Strengths:**

1. 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.
2. Public health centres offer condoms free of charge.
3. Several reproductive health programs are underway across the country. These programs make it possible to integrate prevention programs into the system.

4. Extension of access to condom and more variety of the condom offering centres

**Challenges:**

1. Some of the key 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 systems of 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
6. Some people know little about condom and cannot use it properly

**Suggestions:**

1. Offering HIV based skill-based education
2. Making use of mass media
3. Ready availability of condom along with training for the target population
4. Engaging the organizations which deal with youth affairs in this issue

## Indicator 18. 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:** Behavioural surveys

**Method of measurement used by this report:** A 2007 study featuring female sex workers has been used. <sup>(36)</sup> For more detailed description of this study please refer to indicator number 8.

**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. <sup>(36)</sup> (Table 20)

**Table 20. Percentage of female sex workers reporting the use of a condom with their most recent client**

Age Group	Less than 25 year			25 year and more		
	Using of condom	Total	proportion	Using of condom	Total	proportion
Female sex workers	72	122	59.0%	82	158	52.0%

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. But at the present a survey is being conducted on sexual behaviour of the female Sex Workers result of which will be published in near future.

**Suggestions for indicator improvement:** Reinforcement and full implementation of integrated biobehavioral surveillance system on the target groups of most at risk in a scale that can be applicable to the whole country.

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

**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)

**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

**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. Taking use of various service offering systems such as mobile teams, peer groups and attraction of private sectors participation

## Indicator 19. 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:** Behaviour surveys or other special studies

**Method of measurement used by this report:** There is a study that used Respondent Driven Sampling (RDS) to study Men who have Sex with Men (MSM) in neighbourhoods south of Tehran. <sup>(37)</sup> For more detailed description of this study please refer to indicator number 8.

**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 this study, 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). <sup>(37)</sup>

**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:** Due to lack of representative studies, comparison is not possible.

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

**Strengths:**

1. 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.

**Challenges:**

1. Little information is available on the conditions of men who have sex with other men.

**Suggestions:**

1. 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 20. 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 tools of measurement:** Behaviour Surveillance Survey or other special surveys

**Tools of measurement used by this report:** For injecting drug users, the results of a biobehavioral study conducted on a national scale in cooperation with research centres in 2007 were used. <sup>(7)</sup> More description on this survey is detailed in the indicator 8.

**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 in your last sexual intercourse?

Numerator: Number of respondents who reported that a condom was used the last time they had sexual intercourse.

Denominator: Number of respondents who reported 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 21 and 22.

**Table21. Percentage of injecting drug users reporting the use of a condom the last time they had sexual intercourse (across the country)**

Age \ Sex	Less than 25 year			25 year and more		
	N1 <sup>α</sup>	N2 <sup>°</sup>	proportion	N1 <sup>α</sup>	N2 <sup>°</sup>	proportion
Male	203	70	34.5%	1346	439	32.6%
female	7	2	28.6%	26	8	30.8%

<sup>α</sup> N1: The number of IDU who has injection in the last month and have the sexual intercourse in the last year.

<sup>°</sup>N2: The number of IDU who has injection in the last month and in the last sexual intercourse they have use condom.

**Table22. Using of the condom in the last sexual intercourse among the IDUs in Tehran.**

Age \ Sex	Less than 25 year			25 year and more		
	N1 <sup>α</sup>	N2 <sup>°</sup>	proportion	N1 <sup>α</sup>	N2 <sup>°</sup>	proportion
Male	22	10	45.5%	189	72	38.1%
female	0	0	Incalculable	1	1	100%

<sup>α</sup> N1: The number of IDU who has injection in the last month and have the sexual intercourse in the last year.

<sup>°</sup>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:** Due to lack of new surveys on the injecting drug users, assessment of changes to this indicator is impossible. Although provisions have been made for the second biobehavioural survey within the epidemiologic surveillance system which will be imminently commenced. (2)

**Suggestions for indicator improvement:** Bolstering and full application of bio-behavioural surveillance on the groups most-at-risk in a scale that can be generalized to the whole country.

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

**Strengths:**

1. Existence of bio-behavioural surveillance system on this group
2. A fairly extensive service offering network involving injecting drug users have been conducted between the release of the previous report and this one.

3. Offering free prevention services such as condom in the service giving centres

4. There exists a vast primary healthcare network which makes integration possible

**Challenges:**

1. Difficulties in gaining knowledge about condom when it comes to education of this group

2. Some members of target group have a negative attitude towards condom use

2. Inadequate knowledge and skill on condom use

**Suggestions:**

1. Supporting NGOs which offer services to most-at-risk populations

2. Securing the contribution of most-at-risk populations to the awareness campaign and tapping into the potential of the peers

3. Condom distribution along with education to those who visit public and private rehabilitation centres

4. Increasing the number of drop-in centres and outreach groups

5. Making safe sex education an integral part of services offered to injecting drug users

## Indicator 21. Injecting Drug Users: Safe Injecting Practices

**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 tools of measurement:** Behaviour Surveillance Survey or other special surveys

**Tools of measurement used by this report:** The results of a biobehavioral study among injecting drug users which was conducted at a nationwide scale in the summer of 2007 were employed in this report. <sup>(7)</sup> Details of this process have already been discussed in the section on the eighth indicator.

**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 23 and 24 include separate values of indicator in Tehran and the entire country.

**Table23. Percentage of injecting drug users reporting the use of lower risk injection the last time they injected (across the country)**

Age Sex	Less than 25 year					25 year and more				
	N1 $\alpha$	N2 $^{\circ}$	N3 $\diamond$	The proportion of sterile injection	Proportion of safer injection $\beta$	N1 $\alpha$	N2 $^{\circ}$	N3 $\diamond$	The proportion of sterile injection	Proportion of safer injection $\beta$
Male	218	57	283	77.0%	97.0%	1264	336	1698	74.4%	94.2%
female	7	4	11	63.6%	100%	27	13	44	61.4%	85.1%

$\alpha$  N1 :Number of injecting drug users reporting the use of sterile injecting equipment the last time they injected during last month

$^{\circ}$ N2 :Number of injecting drug users reporting the use of their own injecting equipment the last time they injected during last month

$\diamond$ N3 :Total number of injecting drug users reporting drug injection during last month

$\beta$ : Including injection with sterile syringe and used syringe by themselves.

**Table 24 Percentage of injecting drug users reporting the use of lower risk injection the last time they injected (in Tehran)**

Age Sex	Less than 25 year					25 year and more				
	N1 $\alpha$	N2 $^{\circ}$	N3 $\diamond$	The proportion of sterile injection	Proportion of safer injection $\beta$	N1 $\alpha$	N2 $^{\circ}$	N3 $\diamond$	The proportion of sterile injection	Proportion of safer injection $\beta$
Male	24	8	33	72.7%	96.7%	236	34	283	83.4%	95.4%
female	0	0	0	Incalculable	Incalculable	1	0	1	100%	100%

$\alpha$  N1 :Number of injecting drug users reporting the use of sterile injecting equipment the last time they injected during last month

$^{\circ}$ N2 :Number of injecting drug users reporting the use of their own injecting equipment the last time they injected during last month

$\diamond$ N3 :Total number of injecting drug users reporting drug injection during last month

$\beta$ : 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:** Since no new assessments have been made on injecting drug users, it is not possible to evaluate the changes. The preliminary steps for the conduction of the second biobehavioral study within the framework of the epidemiological surveillance system are in place, however, and the study is to be launched shortly. <sup>(2)</sup>

**Recommendations for indicator improvement:** The biobehavioral surveillance system must be consolidated and established in its entirety among most at-risk groups such that it would be representative of the country.

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

**Strengths:**

1. Starting coherent studies among injecting drug users in the timeframe between the previous and the current report.
2. Establishing a relatively extended network to contact injecting drug users since the previous report.
3. Providing free-of-charge prevention services including syringes and needles in the aforementioned centers.
4. Providing services through the extended primary healthcare (PHC) system which enables integration.

**Challenges:**

1. Difficulty in accessing injecting drug users.
2. Inadequate attention to the quality of harm reduction services.
3. Disproportionateness of the coverage of harm reduction services to the extent of the problem.

**Recommendations:**

1. Supporting NGOs which provide services to most at-risk groups.
2. Promoting the participation of individuals in most at-risk groups in awareness raising campaigns and peer work.
3. Expanding drop-in centers and outreach teams.
4. Launching the training campaign “A New Syringe for Every Injection” among injecting drug users who have not yet been covered by prevention programs and continue injecting drugs.

**D**

# Impact indicators

## Indicator 22. 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

**Tools of measurement:** HIV sentinel surveillance

**Tools 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:** In 29 surveys conducted in nine cities among 5235 pregnant women between 1997 and 2008, not one single case of HIV infection was identified.<sup>(5)</sup>

**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:** Based on the survey trend of these years, there appears no significant change in HIV prevalence among pregnant women.

**Recommendations for indicator improvement:** Continuity and reinforcement of the aforementioned surveys.

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

#### **Strengths:**

1. The low prevalence of HIV infection among the general public is an opportunity not to be wasted.

#### **Challenges:**

1. HIV prevalence is high among injecting drug users.
2. Many of them are sexually active and condom use is uncommon. There are indications of a rise in HIV transmission through sexual contact. The ratio of

sexual intercourse among the youths is considerable. All these could be very detrimental for the expansion of HIV prevalence in Iran.

**Suggestions:**

1. Currently, the major cause for concern when it comes to an uncontrollable HIV epidemic among the general public is risky sexual behaviors among the youths, the general public, and certain other population cohorts such as sex workers, MSM, and their linking rings with injecting drug users. Accordingly, policymakers, planners, clerics, other key groups, and the general public must be sensitized in this regard and their support must be gained particularly to conduct life skills trainings among youths and the general public and also safer sex promotion for all high-risk and at-risk groups. Furthermore, stable marriages and reinforcing the institution of the family can play a decisive role in HIV prevention.

## Indicator 23. Most-at-risk Populations: Reduction in HIV Prevalence

**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 tools of measurement:** UNAIDS/WHO Second Generation Surveillance Guidelines

**Tools of measurement used by this report:** The results of a biobehavioral study conducted at the nationwide scale through the collaboration of a research institution in the summer of 2007 were used for injecting drug users. This study is a section of an integrated biobehavioral surveillance on HIV among injecting drug users in an area spreading 11 provinces of Iran and under the jurisdiction of 13 medical universities so that it could be representative of the whole country. The study was conducted through the time-location sampling process. <sup>(7)</sup> To calculate the indicator among inmates, the results of a biobehavioral study conducted in the summer of 2009 within the framework of an integrated epidemiological surveillance system were used. <sup>(6)</sup> And to display an image of HIV prevalence among female sex workers, a series of separate studies and a number of small-scale surveys in Tehran <sup>(42)</sup> and some other cities were employed. <sup>(5)</sup>

**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: In the aforementioned survey, the prevalence of HIV among injecting drug users all around the country was 14.3% (415 cases of HIV infections among the overall 2899 persons who took the test, including 406 males among 2815, i.e. 14.4%, and nine women among 84, i.e. 10.7%, and 9.4% under 25 and 15.1% over 25) and 12.3% in Tehran (18 among the 149 persons tested). <sup>(7)</sup>

2. Among inmates: The prevalence of HIV among inmates according to the latest biobehavioral study done in 2009 was 1.27% among male inmates and 0.75% among female inmates. <sup>(6)</sup>
3. Among female sex workers: The data of some separate studies done here and there indicate that HIV prevalence is still low among female sex workers who are not injecting drug users and has definitely not reached the critical 5% level. However, the results of the national monitoring program in 2009 over 10 provinces show that among the female sex workers who referred to VCTcenters for counseling and testing services, 5% and 7% were HIV infected in 2007 and 2008, respectively. <sup>(8)</sup> The extent of the coincidence of injecting drug use within this category is not specified in the study. Some separate studies on female sex workers who are also injecting drug users illustrate that HIV prevalence among this group is very much akin to that of other drug injectors.
4. Among MSM: Concerning HIV among MSM, there are extremely limited studies available which cannot possibly allow generalizable findings.

**Indicator changes compared with previous report:**

1. Injecting drug users: HIV prevalence among injecting drug users towards the late 1990s and early 2000s underwent a rapid increase surpassing the critical 5% point. <sup>(4)</sup> It seems, nevertheless, that thanks to the relative expansion of harm reduction initiatives in penitentiaries and also the society at large, the explosive pace of the increase slowed down in the mid-2000s and thus Iran avoided reaching the stance <sup>(43)</sup> of certain regions in the world where no harm reduction programs are in place.
2. Inmates: HIV prevalence in penitentiaries has also undergone a pattern similar to that of injecting drug users; yet, the degree of the prevalence has always been lower.
3. Female sex workers: The limited existing data show that HIV prevalence has not gone up during these years. Yet one has to be very cautious in this interpretation.

**Recommendations for indicator improvement:** Complete establishment of the biobehavioral survey among most at-risk groups so that it could be representative of the country.

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

**Strengths:**

1. Support of a main sector of religious leaders in providing services to most at-risk groups.
2. Commencement of coherent studies among injecting drug users since the last report.

**Challenges:**

1. Limited access to most-at-risk groups due to legal, cultural, and social limitations and stigmatization.

**Suggestions:**

1. Attempts to gain support in complete adoption of the national strategic plan to control HIV/AIDS.

## Indicator 24. 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 tools of measurement:** Programme monitoring tools; cohort/group analysis forms

**Tools of measurement used by this report:** Programme monitoring

**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 values of the indicator based on the ART registry system for 2000-08<sup>(44)</sup> are displayed in Table 25.

**Interpretation of indicator:** A 70% survival rate following 12 months of ARV therapy needs to be improved.

**Indicator changes compared with previous report:** It seems that with the rise in the number of individuals under therapy in recent years, the decline in the 12 month survival after treatment has gone up. An analysis of the figures pertaining to the ART registry system shows that as time goes by, the share of male injecting drug users has risen and, at the same time, mortality and abandonment of therapy has also escalated. The role of other factors of mortality among injecting drug users such as lack of adherence to therapy, delay in beginning the therapy, viral resistances, etc. is not clearly defined in the decline of the treatment. Hence, further studies are required to shed light on this issue.

**Table 25. Survival after 12 months on ART**

year	N1			N2		
	total	female	male	total	female	male
2000	5	1	4	5(100%)	1(100%)	4(100%)
2001	7	2	5	7(100%)	2(100%)	5(100%)
2002	15	4	11	14(93%)	4(100%)	10(91%)
2003	27	9	18	22(81%)	8(89%)	14(78%)
2004	143	21	122	117(82%)	20(95%)	97(80%)
2005	136	22	114	119(88%)	18(82%)	101(86%)
2006	280	43	237	239(85%)	41(95%)	198(84%)
2007	352	58	294	283(80%)	49(84%)	234(80%)
2008	514	88	426	358(70%)	63(72%)	295(69%)

N1: Number of adults and children who are still alive and on antiretroviral therapy at 12 months after initiating treatment

N2: Total number of adults and children who initiated antiretroviral therapy who were expected to achieve 12 month outcomes within the reporting period

**Recommendations for indicator improvement:** Strengthening the clinical information system.

**Challenges and suggestions for indicator improvement:**

**Challenges:**

1. The fact that most at-risk groups which comprise the major portion of HIV infected individuals in Iran are hard to reach makes their identification difficult.
2. Patients among the larger population of patients, i.e. injecting drug users, may have other interests that may interfere with their adherence to ART.
3. Most of the patients are among injecting drug users in Iran and with respect to the high mortality rate of these individuals vis-à-vis the general public, the survival rate may falls.

**Suggestions:**

1. Expanding the methadone maintenance therapy among injecting drug users to increase their follow-up of the therapy.
2. Enhancing the sensitivity of the system of health services provision in treating opportunistic infections.
3. Providing psychosocial support to raise adherence to the ART.

4. Setting up studies to determine the causes of decline in 12 month survival after treatment.

## Indicator 25. Decline in Mother-to-Child Transmission of HIV

**Definition of indicator:** Percentage of infants born to HIV infected mothers who are infected

**Purpose of indicator:** To assess progress in eliminating Mother-to-Child Transmission of HIV

**Recommended tools of measurement:** Spectrum or other statistical modelling that uses programme coverage and efficacy studies

**Tools of measurement used by this report:** Spectrum and programme coverage as presented in indicator value

**Recommended method of measurement:** The indicator will be calculated by taking the weighted average of the probabilities of mother-to-child transmission for pregnant women receiving and not receiving HIV prophylaxis, the weights being the proportions of women receiving and not receiving various prophylactic regimes.

**Method of measurement used by this report:** It is tried to act as recommended.

**Value of Indicator:** The share of preventive therapy in reducing the transmission was 31%.

Description of the calculation is as follows:

- Variables needed:
  - The number of pregnant HIV infected women who received preventive therapy in 2008: 25<sup>(44)</sup>
  - The number of estimated pregnant HIV infected women through the Spectrum software in 2008: 118<sup>(10)</sup>
  - Mean of the transmission rate without therapy: 25%<sup>(33)</sup>
  - Mean of the transmission rate with therapy: 2%<sup>(33)</sup>
- Calculation steps:
  - Estimating the number of those infected with preventive therapy:  $[(118-25)*25%]+[25*2%]:118 = 20$
  - Estimating the number of those infected without preventive therapy:  $118*25%=29$
  - Estimating the share of preventive therapy in reducing transmission:  $[29-20]:29= 0.31$



## 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.

The Islamic Republic of Iran has taken a variety of measures to control HIV ever since the epidemic emerged, some of which were creative and unique enough to win national and/or international recognition. The most prominent of these measures include: gaining the support of policymakers in conducting harm reduction programs among injecting drug users, setting up behavioral disorder counseling(triangular) centers, HIV prevention programs in penitentiaries, expanding methadone maintenance treatment coverage, setting up insurance coverage for those inflicted, and operationalizing prevention centers for most at-risk women. Setting up triangular clinics and also the practices in penitentiaries have so far gained the recognition and approval of international observers with the pertinent documents having been published for the best practices to be introduced globally. A report is also being currently prepared by the World Health Organization on the centers for most at-risk women. A synopsis of some of the cases raised in the foreword are presented below:

**Advocacy among policy-makers for HIV prevention among IDUs:** High level advocacy on harm reduction measures for injecting drug users- Due to the diversity of attitudes toward substance abuse, proper policymaking on the issue has always been a major challenge throughout the world. Aiming for drug-free societies, many countries have emphasized legal action against substance users. However, the global response to AIDS, while acknowledging the necessity of legal action to control supply, has also stressed the need for policies aimed at demand reduction and harm reduction as well as recognition of every individual's right to access to HIV prevention and treatment services. Over the past decade Iran has implemented significant advocacy measures among senior officials and clerics in order to promote the latter, more comprehensive attitude. The advocacy measures have had a considerable impact on facilitation and expansion of harm reduction initiatives for drug users. Noteworthy in this regard are the 2005

directives by Iran's Chief of Judiciary in support of harm reduction initiatives.<sup>17</sup> Emphasizing the fact that needle and disinfectant distribution for safe psychoactive drug injection does not constitute a criminal offence, these directives order Iran's judges to refrain from obstructing such initiatives. The Chief of Judiciary also issued a set of guidelines promoting the expansion of prison harm reduction programs while advising against incarceration of individuals merely because of substance abuse.<sup>18</sup> Further consideration of qualified decriminalization of drug addiction together with efforts to reduce the number of drug addicts entering prisons and reduce the number of inmates are practical measures that will lead to reduction of harms resulting from substance abuse .

**Triangular clinics:** These triangular clinics were established due to three epidemics of STI, drug injection 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. <sup>(45)</sup>

**Prisons:** <sup>(46)</sup> 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 inside 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 inside the prisons and continued by provision of hypochlorite solution, 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 in 2007. <sup>(4)</sup> On 20 March 2008, 25407 individuals were under MMT over the prisons of the country. <sup>(38)</sup> Today sterile needles and syringes are provided in limited scale.

# Major challenges and remedial actions

*Challenges related to each indicator were discussed in related sections. Most important challenges related to overall HIV control program and ways to address them are summarized below:*

- **Second strategic plan**

- **Challenges**

1. Cultural barriers and stigma related to high risk behaviours makes access to most at risk groups very hard;
2. Still some policy makers and key persons are concerned about unwanted effects of safer sex promotion programs among general population;
3. Delay in approval of second strategic plan;
4. Delay in development of one monitoring and evaluation plan in order to supervise and evaluate the activities in all related organizations and stakeholders using same methods and definitions;
5. Insufficient involvement of NGOs and private sector in program;
6. Insufficient trained and motivated human resource for expansion of the programs;

- **Ways to address**

1. Increasing advocacy by clarifying adverse effects of HIV epidemic on economic, social and cultural aspects of country and asking for more support on:
  - a. Ensure resources for full implementation of planned activities, including expenditure, infrastructure and human resources.
  - b. Legislation of supporting laws to increase access for most at risk and affected population to prevention and care services.
2. Strengthening one high level managerial system for planning, monitoring and evaluating the programs.

3. Predisposing more involvement of NGOs and private sector in HIV control program.
- **Services for groups at higher risk**
    - **Challenges**
      1. Hard to access injecting drug users (although recent policies leads to very positive achievements in this regard)
      2. Limited services for other most at risk groups like sex workers and MSM, because of high stigma and poor access to these groups.
    - **Ways to address:**
      1. Increasing coverage of harm reduction using evidence based methods approved to be effective in these groups.
      2. Advocating policy makers and general population as well, in order to reform laws and unwritten laws to facilitate access and services to these groups.
  - **Young population**
    - **Challenges:**
      1. Insufficient programs on life skill based HIV education in schools.
      2. Insufficient understanding about knowledge and practice of youth.
      3. Social and cultural limitations in safer sex education and communication.
      4. School abandon by a number of youth in guidance and gymnasium.
    - **Ways to address:**
      1. Establishment of one information management and applied research system with involvement of all stakeholders related to younger population.
      2. More advocacy for implementation of skill based education focused on HIV prevention (considering successful experience of advocacy on harm reduction for IDUs).
      3. Running pilot project in order to develop most proper program for communication and education at national level.
      4. Using all aspects of safer sex promotion programs.
  - **Service delivery through private sector**
    - **Challenges**
      1. Poor involvement of private sector in delivering HIV prevention and care services despite wide expansion in country.

2. Insufficient information of private sector on national HIV programs, activities and guidelines, which may therefore, leads mismanagements and wrong decisions.
  3. Discrimination by health care providers.
- **Ways to address**
    1. Strengthening educational programs and refreshment trainings for private sector in order to introduce national guidelines and standards and reducing stigma and discrimination as well.
- **Service delivery by NGOs**
    - **Challenges**
      1. Limited number of NGOs, specially those with capacity of working in HIV and related areas;
      2. Lack of NGO network inside the country;
      3. Weak coordination between government and NGOs;
    - **Ways to address**
      1. Facilitation by government in order to:
        - a. Establish new NGOs;
        - b. Strengthening coordination between government and NGOs;
        - c. Increasing capacity of NGOs in delivering HIV related services;
      2. Supporting environment for more involvement of NGOs in HIV services delivery.



## Support from the country's development partners

This section details the support received so far and also the support which is anticipated.

- ✓ The share and role played by development partners in securing the funds required to control and prevent HIV/AIDS has improved since the last report and expected to be continued.
- ✓ Support in terms of planning, implementing, and monitoring HIV/AIDS control activities including technical and logistic supports have improved as well and expected to be continued.
- ✓ Facilitation for the country in order to increase access to less priced ARVs is expected to be improved.
- ✓ Providing opportunities for sharing experiences among countries with same social, economical and geographic context is expected to be continued and improved.
- ✓ Assessment of the activities by international consultants and technical support on removing weaknesses is expected to be continued.
- ✓ Giving support to develop a network at regional level for NGOs to empower their better participation in planning and implementing HIV services expected to be improved.
- ✓ Encouraging international companies (especially those produce objects for adults) for involvement in communication and delivering messages related to HIV prevention is expected.
- ✓ Assisting coordination between all partners of HIV prevention programs is expected.



# Monitoring and evaluation environment<sup>(8)</sup>

## **1. M&E Committee Structure and Terms of Reference in the Second National Strategic Plan to Control AIDS**

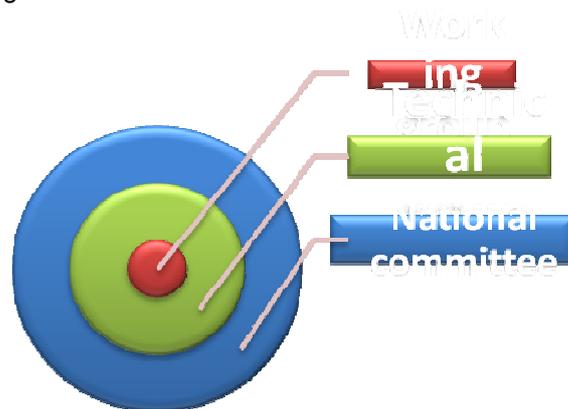
The Committee was formed in 2003 and was originally comprised of experts and professionals not necessarily affiliated with the Strategic Plan partner organizations. In 2007 the structure of the National M&E Committee was fundamentally revised to comprise representatives of partner organizations including those of the Iranian Blood Transfusion Organization, Prisons' Organization, State Welfare Organization, National Organization for Youth, NGOs, Iranian Red Crescent Society, Ministry of Interior, Ministry of Education, Ministry of Science, Ministry of Welfare and Social Security, Military and Law Enforcement Forces, Islamic Republic of Iran Broadcasting, Imam Khomeini Relief Fund, Drug Control Headquarters, UNAIDS, relevant research institutes and the Ministry of Health (with individual representatives from the Center for Disease Management, Network Development & Health Improvement Center, Office for Population and Family Health, Office for Social & Mental Health, MoH Research Affairs Deputyship as well as select representatives from medical sciences universities). These representatives are active at national and provincial levels.

### **A. Monitoring and Evaluation Committee at the National Level**

The National M & E Committee was formed to develop protocols, determine major and minor indicators, identify indicator measurement and calculation methods, set the implementation process, and collect, analyze and report on data from across the country. Since the committee was technical and professional in nature, the following three levels of sub-groups were set up for it to function (fig 3):

- **Working Group:** A group of 4-6 experts and specialists who develop the technical drafts needed for the monitoring and evaluation plan at various levels, including stages of indicator definition, identification of needed data, data collection modes and methods of data analysis and reporting.
  - **Technical Group:** due to the specialized nature of its work, this group has been divided into the four subgroups described below. It comprises technical experts from partner organizations and the Working Group. These subgroups evaluate the drafts developed by the Working Group against corresponding needs and implementation capacities of their respective organizations. The subgroups are:
    1. Subgroup for prevention in the general population
    2. Subgroup for prevention in the most-at-risk group
    3. Subgroup for care and treatment
    4. Subgroup for empowerment and support
- This group has a total of 21 members, representing partner organizations and ministries. From among them, those organizations responsible for calculating the greatest number of indicators have been selected as the Supervisory-/Executive Core Team to lead the implementation of monitoring and evaluation plans. The Core includes representatives from MoH (Offices for AIDS Control and Substance Abuse Prevention), MoE, Prisons' Organization, State Welfare Organization, and the Red Crescent. Additionally a representative from the Ministry of Interior has been made a member of the Core Team because of the key coordination role played by the ministry and its affiliated province governorship generals.
- **Monitoring and Evaluation Committee:** this level of the Committee is the main policymaking body in the M&E plan. Its members are senior officials from partner organizations. All drafts developed by the technical subgroups in various areas of monitoring and evaluation shall be considered and approved at this level.

Figure 3. M&E Committee Organizational Chart



## B. Monitoring and Evaluation Committees at Province Level

Theoretically the Province Committee should be made up of local heads of corresponding national partner organizations. In practice however, the

implementation of the M&E plan at province level is largely handled by a supervisory/executive core team that includes representatives from organization responsible for tabulating the greatest numbers of indicators in the Strategic Plan. Thus the core teams include local representatives from the State Welfare Organization, the Red Crescent Society, Prisons' Organization, Ministry of Education and the local medical sciences university and are headed by representatives of governors general. Province core team members receive the training required to implement the National Plan through educational/briefing workshops.

It has been decided that province committees shall be headed by heads of social affair offices of each governorship general, while the deans of health at each province's medical sciences university shall act as committee secretary.

## **2. Stages of M&E Plan Implementation in the Second National Strategic Plan to Control AIDS**

1. Establishment of the working group- the group began its work in May 2009. By July 2009 the following tasks had been accomplished:

- Setting ( outcome - input – output ) indicators related to the status of the epidemic as well as M&E indicators. Matching national indicators with International indicators for the purpose of consistency such that the same indicators used for analyzing the status of the epidemic domestically could be used in international reports.
- Setting acceptable and uniform definitions for each indicator and its components to ensure consistent measurement of the indicators over time.
- Setting acceptable data collection methods for each indicator and its components to make possible further survey studies, routine reporting on programs, acceptable estimation methods or any combination of these.
- Drafting the Comprehensive National Monitoring and Evaluation Manual , which is a collection of the aforementioned indicators to be used as a standard reference book throughout the country for measurement of indicators, thus making possible uniform variable data collection methodology and consistent reporting at both national and provincial levels. The manual also constitutes a useful guide for designing applied research.
- Developing the draft action plan for determination of output indicators of the Second Strategic Plan

2. Establishment of the technical groups- these groups were set up in June 2009 and have performed the following tasks:

- Evaluation and completion of the revisions to the drafts produced by the Working Group

- Matching data collection methods with existing organizational capacities. This means that since the existing documentation and reporting systems could not produce the data needed to calculate certain indicators, alternative methods to those recommended by the working group were adopted instead.

3. Establishment of the Core Supervisory/Executive Team- The Core Team was set up in July 2009 to collect output indicators for the Second Strategic Plan. It has performed the following measures since:

- Finalizing the draft developed by the Working Group
- Listing the variables needed to evaluate the outputs of the Second Strategic Plan
- Compiling standard uniform definitions of variables
- Identifying accessible sources for data extraction
- Identifying methods for data extraction from the said sources
- Designing forms for data collection
- Creating guidelines for filling data collection forms
- Designing software for data entry and analysis
- Designing software for data collection quality control
- Designing an action plan delineating the implementation of the aforementioned plan including:
  - I. Identifying provincial M&E representatives in each organization
  - II. Establishing province core teams similar to the national level Core Team
  - III. Planning for the training of province core teams and planning the phases of data collection from the provinces
  - IV. Planning for data collection process supervision

4. Final Approval of the National Monitoring and Evaluation Plan- the M & E plan developed by the working and technical groups including indicators and implementation process was finalized and approved by the National M&E Committee

5. Implementation of the M&E Plan in 2009-2010

Step 1- Establishment of Province Implementation Structures: In 10 select provinces technical M&E subcommittees similar to national level subcommittees were formed both to collect data required by the Plan and to follow-up other M&E activities in each province. The ten provinces were selected based on such parameters as geographical distribution and prevalence of known cases, so that the results would hold for the country as a whole and be statistically valid in applying indicator evaluation

results to the progress report on the Second Strategic Plan as well as situation analysis for development of the Third Strategic Plan.

Step 2- Training of Personnel- A workshop was held on July 4th and 5th 2009 to familiarize province core teams (from ten selected provinces) with the basics of monitoring and evaluation and to train them on the implementation process for the National M & E Plan. Subsequently, data entry personnel and AIDS care professional from the selected medical sciences universities were trained through another workshop held on August 19th 2009 in order for them to become familiar with the data entry and analysis software.

Step 3- Data Collection- the trained core teams began collecting the data needed for 2007 and 2008 Plan evaluations in August 2009 using standard data collection forms

Step 4- Data collection Quality Control- in addition to data collection quality control by software, there was also direct supervision of each organization's data collection measures at province level by representatives of core team member organizations.

Step 5- Finalization of Collected Data- the data collected from the 10 selected provinces was compiled and verified by comparative assessment using similar existing data from member organizations of the Core Team at national level. All data found to be unreliable was discarded.

Step 6- Data Analysis- input and output indicators approved by the National Committee were calculated. These indicators are disaggregated by organization in-charge and target population groups

Step 7- Indicator Analysis and Report Preparation- the calculated indicators were analyzed by the Working Group. By comparing these results with those of other studies a profile of Iran's national response was prepared. These results were further assessed by the Technical Group for preparation of draft reports on the status of response on national and provincial levels. These draft reports await revisions based on comments of partner organization experts and shall subsequently be forwarded to the National M&E Committee for final approval.

Step 8- Report Publication- The results of the M&E plan have already been used and publicized within the following frameworks:

- I. IRI Country Report on the UNGASS Declaration of Commitment on AIDS
- II. Iran's HIV Situation Analysis and National Response Report

III. Abstracts of the M&E plan report, which has been made available to policymakers

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