

In the Name of God

Islamic Republic of Iran AIDS Progress 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)
ATS	Amphetamine like stimulants
CCM	Country Coordinating Mechanism
SW	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
PITC	Provider Initiated Testing and Counselling
PWID	People Who Inject Drug
PLWH	People living with HIV
RDS	Respondent Driven Sampling
STI	Sexually Transmitted Infection
VCT	Voluntary Counselling and Testing
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNGASS	United Nations General Assembly Special Session (on AIDS)

Introduction

With the HIV epidemic among people who inject drug (PWID), I.R.Iran encountered concentrated HIV epidemic. Fortunately respecting the implemented intervention among PWID, increasing rate of HIV prevalence was blunted. But the danger is still serious. A considerable number of PWID is infected each year and there is some evidences indicating spread of HIV epidemic among population groups other than PWID. A concentrated epidemic left unheeded in lieu of effective responses for its control, may turn into a generalized epidemic. At each of the three United Nations General Assembly Special Sessions on HIV/AIDS in 2003, 2008 and 2011, the Islamic Republic of Iran has committed itself to HIV control by signing the declarations of these sessions. 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. 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 Fifth time that Iran is reporting its Declaration of Commitment indicators within the framework of UNAIDS guidelines. The first report was published in 2006. Afterwards the reports were published every two year. A short midterm report was published last year. Despite its possible shortcomings, this report contains very important information, which was produced, collected and analysed by thousands of our 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.

Status at a glance

Inclusiveness of Reporting Process

The reporting process was initiated in February 2012 by the National HIV/AIDS Monitoring & Evaluation Committee with the establishment of a task force,

A Working Group was established to prepare this report whose members included the Ministry of Health & Medical Education, the State Prisons Organization, the State Welfare Organization, the Ministry of Interior, the Ministry of Education, Drug Control Headquarters, the Blood Transfusion Organization, medical universities, the UNAIDS Country Office, PLWH and non-governmental organizations. The Working Group began work on 22th February 2014, and its members have been involved in developing the various sections of the report, usually circulated by email among partners for feedback and eventual approval.

The Status of the Epidemic

The prevalence of HIV among the general population in Iran remains low ⁽¹⁾, but it stands at 15.07 per cent among injecting drug users.⁽²⁾ Accordingly, since HIV prevalence exceeds 5 per cent in this sub-population, the epidemic in Iran is classified as being concentrated. Concentrated epidemics, if neglected and not probably addressed by effective counter-measures, have the potential to evolve into generalized epidemics.⁽³⁾

Since more than a decade ago, measures taken have successfully slowed progression of the epidemic among injecting drug users.⁽⁴⁾ Nevertheless, injecting drug use remains the most important factor fuelling the epidemic in Iran ^(5,6) because the sharing of injecting equipment has not yet reached zero.⁽²⁾ Specially in recent years, harm reduction activities were slowed down. It is therefore critical to sustain and scale up preventive harm reduction programs quantitatively and qualitatively for this key group in order to reach the goal of zero new infections through injecting drug use.

There has been some evidence in recent years of the growing role of sexual transmission in the spread of HIV in Iran,⁽⁷⁾ such that the proportion of recorded cases attributed to sexual transmission has been steadily growing and the prevalence of HIV among female sex workers has reached 4.5 per cent.⁽⁸⁾ The majority of female sex workers do not use condoms consistently.⁽⁸⁾ Sexual intercourse is not uncommon among injecting drug users and is frequently unprotected.⁽²⁾ Evidence of high-risk sexual practices has also been observed among young people,⁽⁹⁻¹¹⁾ notably in

connection with the use of amphetamine-type stimulants, which has grown alarmingly in the past few years.⁽¹²⁾ For all these reasons, we must inevitably set up interventions to reduce the prevalence of high-risk sexual practices in order to control the epidemic. The number of women living with HIV has increased in recent years.⁽⁷⁾ The corresponding increase in the number of pregnant women living with HIV has led to an increasing number of children being born with HIV in recent years.⁽⁷⁾ Even though the absolute number of these children remains low, failure to scale up effective PMTCT programs could prove problematic in the future. HIV transmission through contaminated blood or blood products has been all but eliminated⁽⁴⁾ but existing control measures need to continue stronger than before, using the latest equipment.

The Policy and Programmatic Response

The Government of the Islamic Republic of Iran is committed to controlling HIV as a means of promoting the health of the community as a whole. It therefore promotes a participatory and proactive approach by all program partners in controlling the epidemic. It seeks to advance a common strategic vision rooted in the “Three Ones” concept: one strategic program, one coordinating institution, and one monitoring and evaluation framework, which is used by all partners to gauge their interventions. The Government approves and implements interventions, whose effectiveness has been scientifically proven beforehand, and strives to avoid measures that could potentially fuel the epidemic further.

Indicator data in an overview table

Table of summarization of core indicators		
Indicator name	Indicator definition	Indicator value
Indicators related to young people and general population		
Young people: Knowledge about HIV prevention	Percentage of young people aged 15–24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission	Correct answer to all questions: Girls: 19.6% <i>Reference No.14</i> , Boys: 20.6% <i>Reference No.13</i>
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	At this time there is not any reliable study to measure the indicator.
Multiple Sexual partnerships	Percentage of women and men aged 15–49 who have had sexual intercourse with more than one partner in the past 12 months	At this time there is not any generalizable study to measure the indicator. Please refer to text.
Condom use at last sex among people with multiple sexual partnerships	Percentage of women and men aged 15-49 who have had more than one partner in the past 12 months who used a condom during their last sexual intercourse	At this time there is not any generalizable study to measure the indicator. Please refer to text.
HIV testing in the general population	Percentage of women and men aged 15-49 who received an HIV test in the past 12 months and know their results	This Indicator is not relevant to the stage of epidemic in Iran.
HIV prevalence in young people	Percentage of young people aged 15–24 who are living with HIV	4 case among 5261 (0.08%) pregnant women <i>Reference No.1</i>
Indicators related to sex workers		
Sex workers: prevention programmes	Percentage of sex workers reached with HIV prevention programmes	44.26% of FSWs know where can they can go if they wish to receive an HIV test and received a condom during last 12 months, <i>Reference No.8</i> There is not any study about male sex workers
Sex workers: condom use	Percentage of sex workers reporting the use of a condom with their most recent client	60.89% in female sex workers <i>Reference No.8</i> There is not any study about male sex workers
HIV testing in sex workers	Percentage of sex workers who received an HIV test in the past 12 months and know their results	27.87% in female sex workers <i>Reference No.8</i> There is not any study about male sex workers
HIV prevalence in sex workers	Percentage of sex workers who are living with HIV	In female sex workers, using weighted analysis: 4.5% <i>Reference No.8</i> There is not any study about

		male sex workers
Indicators related to men who have sex with men		
Men who have sex with men: prevention programmes	Percentage of men who have sex with men reached with HIV prevention programmes	At this time there is not any reliable study to measure the indicator.
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	At this time there is not any reliable study to measure the indicator.
HIV testing in men who have sex with men	Percentage of men who have sex with men who received an HIV test in the past 12 months and know their results	At this time there is not any reliable study to measure the indicator.
HIV prevalence in men who have sex with men	Percentage of men who have sex with men risk who are living with HIV	At this time there is not any reliable study to measure the indicator. Please refer to text.
Indicators related to injecting drug users		
People who inject drugs: prevention programmes	Number of Syringes distributed per person who injects drugs per year by Needle and Syringe Programmes	Between 55 to 77 syringes for every IDU <i>Reference for nominator: No.15 and 16</i> <i>For denominator: 17 and 18</i>
People who inject drugs: condom use	Percentage of people who inject drugs reporting the use of a condom the last time they had sexual intercourse	With wife/ husband: 34.1% With non-paid regular partner: 43.1% With commercial partner: 53.3% <i>Reference No.2</i>
People who inject drugs: safe injecting practices	Percentage of people who inject drugs reporting the use of sterile injecting equipment the last time they injected	All IDUs: 91.72% Male IDUs: 91.9% Female IDUs: 82.8% Less than 25 year old IDUs: 91.1% <i>Reference No.2</i>
HIV testing in people who inject drugs	Percentage of people who inject drugs who received an HIV test in the past 12 months and know their results	All IDUs: 24.78% Male IDUs: 24.8% Female IDUs: 24.2% Less than 25 year old IDUs: 16.9% <i>Reference No.2</i>
HIV prevalence in people who inject drugs	Percentage of people who inject drugs who are living with HIV	Using weighted analysis, in all IDUs : 15.07% <i>Reference No.2</i>
Indicators related to mother to child transmission		
Prevention of mother-to- child transmission	Percentage of HIV-positive pregnant women who received antiretroviral to reduce the risk of mother-to-child transmission	Estimated number is 17.8%. There are concerns among some experts about the denominator, that is the software has overestimated the number of HIV positive pregnant women

		<i>Reference for nominator: No.15</i> <i>For denominator: 19</i>
Early infant diagnosis	Percentage of infants born to HIV-positive women receiving a virological test for HIV within 2 months of birth	7.8% <i>Reference for nominator: No.15</i> <i>For denominator: 19</i>
Mother-to-Child transmission of HIV (modelled)	Estimated percentage of child HIV infections from HIV-positive women delivering in the past 12 months	31% <i>Reference No.19</i>
Indicators related to antiretroviral treatment		
HIV treatment: antiretroviral therapy	Percentage of eligible adults and children currently receiving antiretroviral therapy	13.4% There are concerns among some experts about the denominator, that is the software has overestimated the number of HIV positive peoples who need antiretroviral treatment. <i>Reference for nominator: No.20</i> <i>For denominator: No.19</i>
Twelve Month retention on antiretroviral therapy	Percentage of adults and children with HIV known to be on treatment 12 months after initiation of antiretroviral therapy	82.1% Female PLWH: 90.8% Male PLWH:80.5% <i>Reference No.20</i>
Indicator related to TB and HIV co-management		
Co-management of tuberculosis and HIV Treatment	Percentage of estimated HIV-positive incident TB cases that received treatment for both TB and HIV	18.8% <i>Reference for nominator: No.21</i> <i>For denominator: 19,22 and 23</i>
Indicators related to policy and HIV related contextual factors		
AIDS spending	Domestic and international AIDS spending by categories and financing sources	Please refer to text
Government HIV and AIDS policies	National Commitments and Policy Instrument (NCPI)	Please refer to annex 3
Prevalence of recent intimate partner violence	Proportion of ever-married or partnered women aged 15-49 who experienced physical or sexual violence from a male intimate partner in the past 12 months	At this time there is not any study to measure the indicator
Orphans school attendance	Current school attendance among orphans and non-orphans (10–14 years old, primary school age, secondary school age)	92.4% <i>Reference No.24</i>
External economic support to the poorest households	Proportion of the poorest households who received external economic support in the last 3 months	At this time there is not any study to measure directly the indicator. Please refer to text.

Overview of the AIDS epidemic

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

Number of People Living with HIV

Number of Registered Cases: Based on the data of case registry system, a total of 27041 PLWH had been identified in Iran until September 21, 2013: 89.3% of them men and 10.7% women. So far, 5118 of these identified cases have entered AIDS stage and 5471 people were dead. Some 45.4% of HIV infected cases are in the 25-34 age and this is the highest in any age group. ⁽⁷⁾

The HIV transmission routes in all the cases which have been registered since 1986 are (in order of magnitude) sharing injection equipment among injecting drug users (68.1%), sexual intercourse (17.1%), blood transfusion (0.9%), and mother-to-child transmission(0.9%). The route of transmission among 18.2% of this group is unknown. ⁽⁷⁾

In comparison to all reported cases, transmission routes in those reported from 20 March 2010 to 20 March 2011 include IDU, 52%, sexual transmission 33.2%, and mother to child transmission 3.4%. In 11.0 % of the identified cases in this year, the transmission mode was unknown and no new cases of transmission through blood transfusion were reported. ⁽⁷⁾

The first case of HIV in Iran was 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. Then, there was a fall with a slight slope in the number of the identified cases (figure 1 and 2) ⁽⁷⁾ It is worth noting here that the systems for recording of 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. ⁽²⁵⁾ Hence, the interpretation of the curve for annual identified cases based on the registry system data must be done with precaution. Nevertheless, given the fact that estimates of the number of PLWH indicate increases in their numbers; the decreasing trend in the number of identified cases might reflect the weakening capacity of the system in identifying cases of infection. It is possible to consider the main cause of this phenomenon to be growing cases of

infection among populations across the country that are less accessible to the system for identification of PLWH.

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 drug injection underwent a gradual increase until 2005 and in 2006 fell 16% compared to that of the previous year and the fall continued in the next years.(Figure 1) ⁽⁷⁾

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 33.2% of all the identified cases in 2013. ⁽⁷⁾ (Figure 2)

Figure1: Trend in transmission route of HIV, based on data of case registry system in IRAN 1986-2010

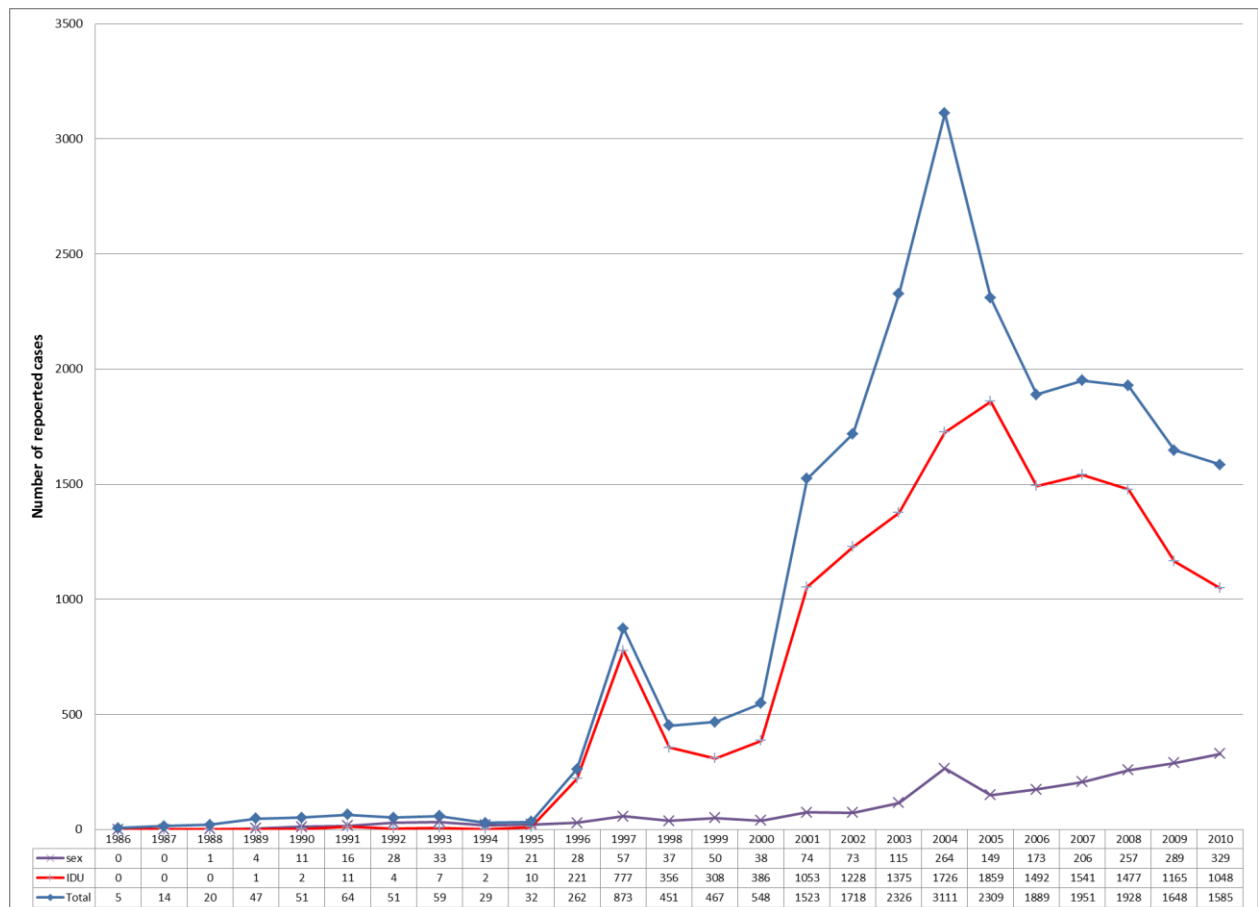
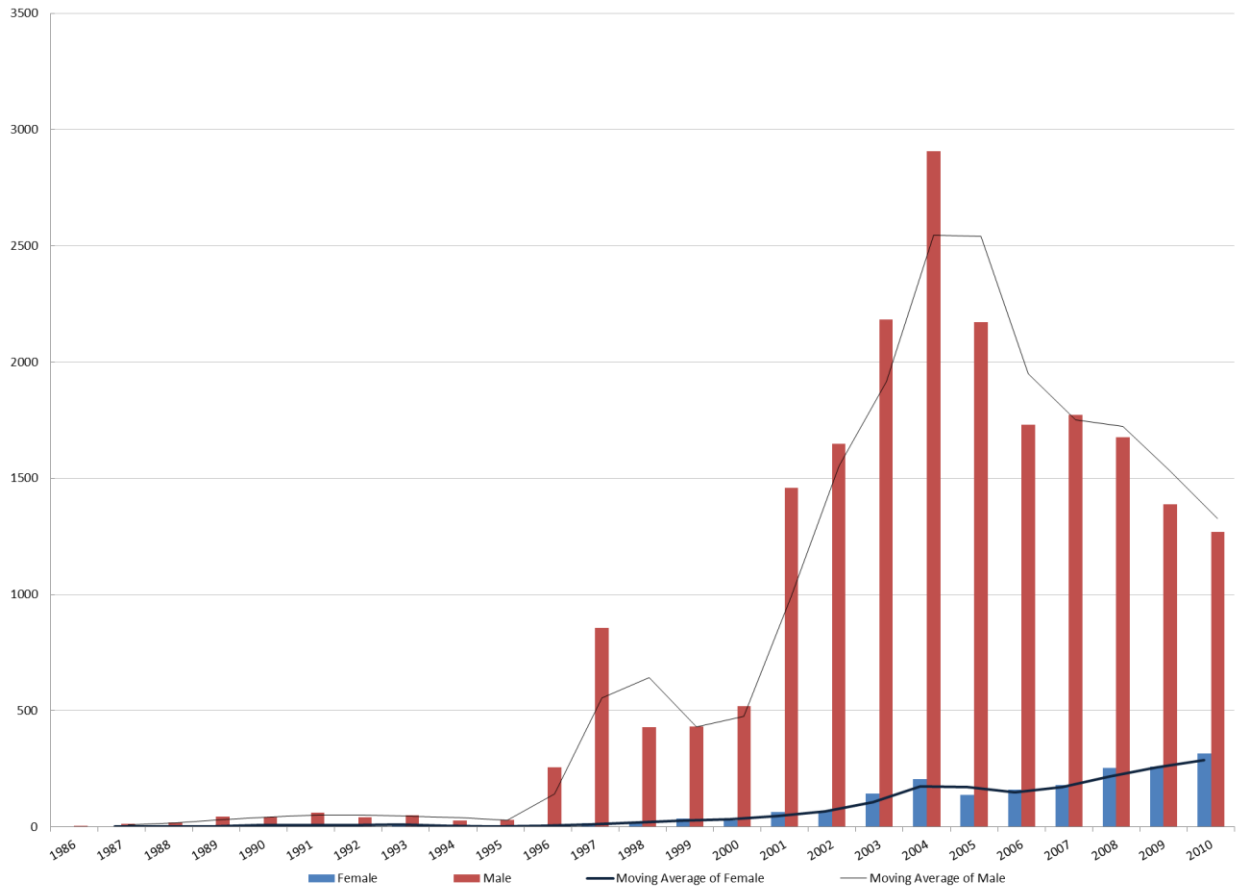
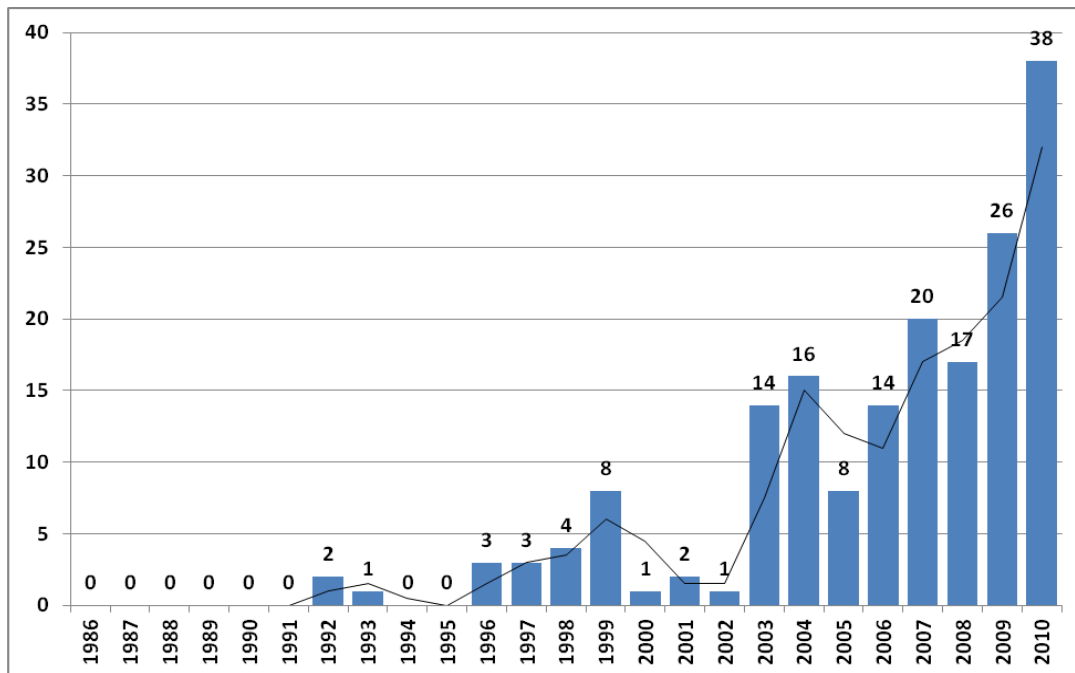


Figure2: Trend in HIV reported cases disaggregated by sex, based on data of case registry system in IRAN 1986-2010



The percentage of children aged 0-14 has been meager during this period at about 1.4%. However, the number of cases has increased over recent years. Furthermore, the number of cases of MTCT has been on the rise over these few years.⁽⁷⁾ (Figure 3)

Figure3: Trend in HIV reported cases infected through MTCT, based on data of case registry system in IRAN 1986-2010



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 11.4% in 2013 with the consolidation of the surveillance system in place and the change in data gathering methodology.⁽⁷⁾ 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 (8.7% so far) can be a product of the major role of drug injection in Iran's epidemic and the small number of female injecting drug users. But in comparison to previous report share of women among the identified cases raised from 8.7% to 10.7% and most of them infected through sexual transmission.⁽⁷⁾

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. Since 2003, attempts have been made by the experts and directors of the national AIDS program to calculate the number of HIV infected cases in the country through applying 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. ⁽²⁷⁾ The latest estimates as of 2014 indicate that the number of women and men living with HIV in 2014 was about 23040 and 55250, respectively (totaling 78290). The respective forecasted figures for 2015 amount to 45050 and 81250 (totaling 126300), representing a 35% increase over the 5-year period starting 2011 (Figure 4-6).⁽¹⁹⁾ Even though prevalence is higher among men (almost twice as high) than women, it seems growth trends is higher in women than men.

Figure4: Estimated number of PLWH during 2006- 2016⁽⁴⁾

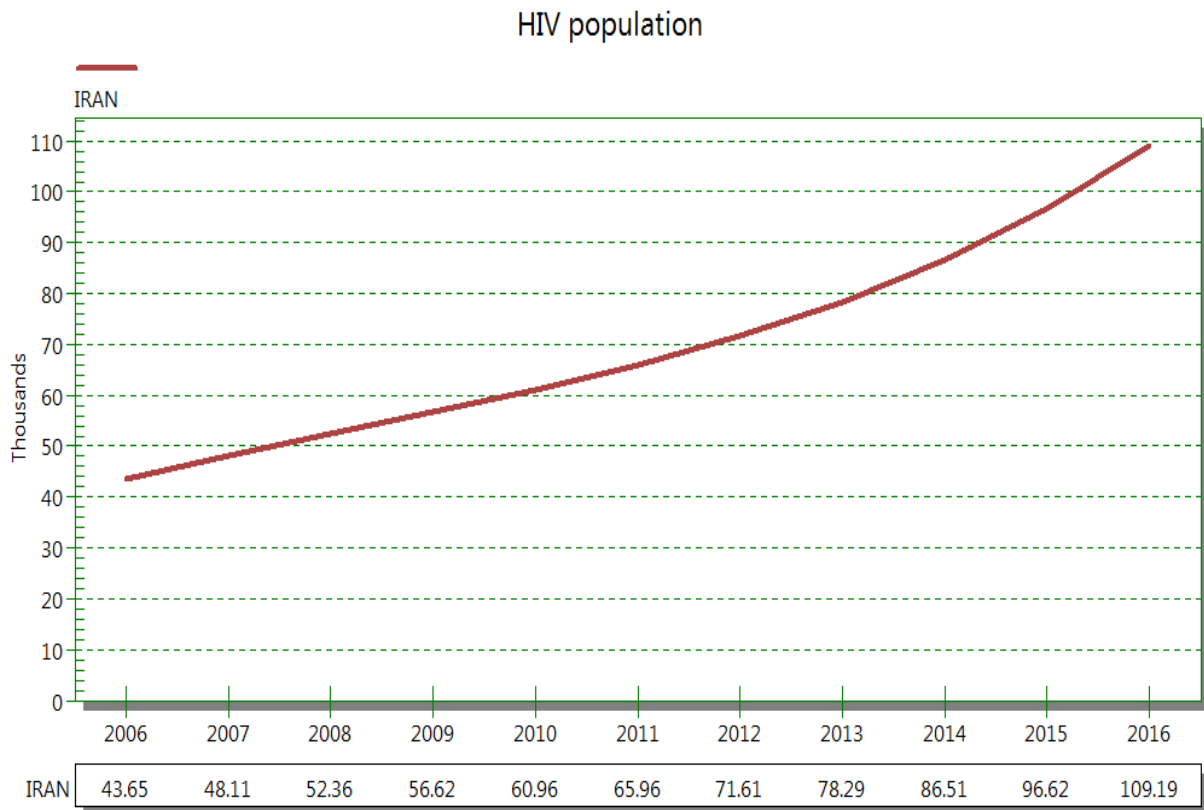


Figure 5: Estimated number of male PLWH during 2006- 2014 ⁽⁴⁾

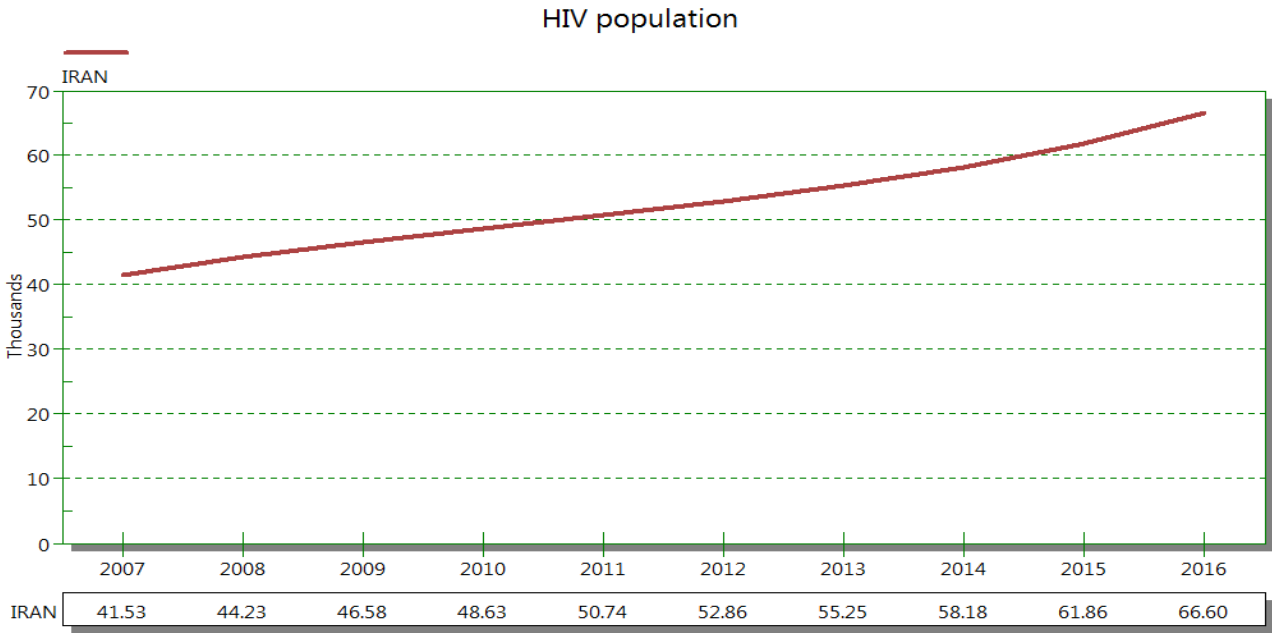
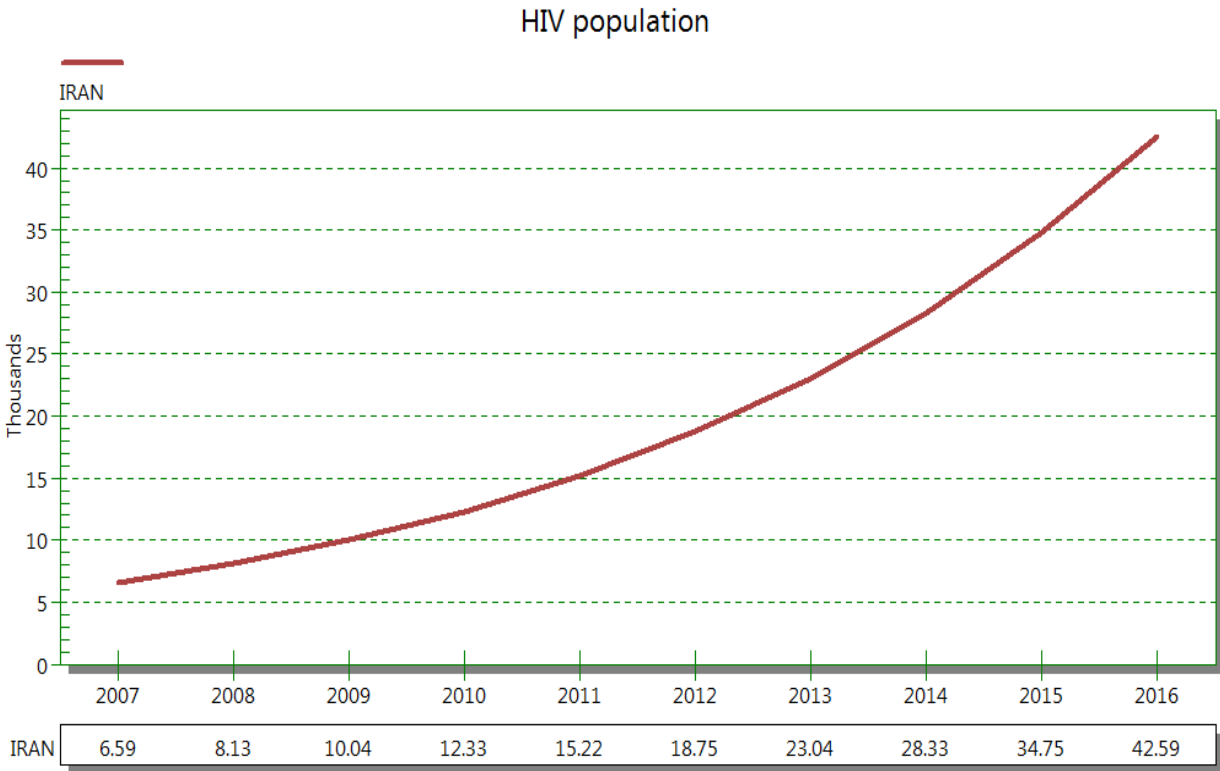


Figure 6: Estimated number of female PLWH during 2006- 2014 ⁽⁴⁾



New Cases and Incidence Rate of HIV

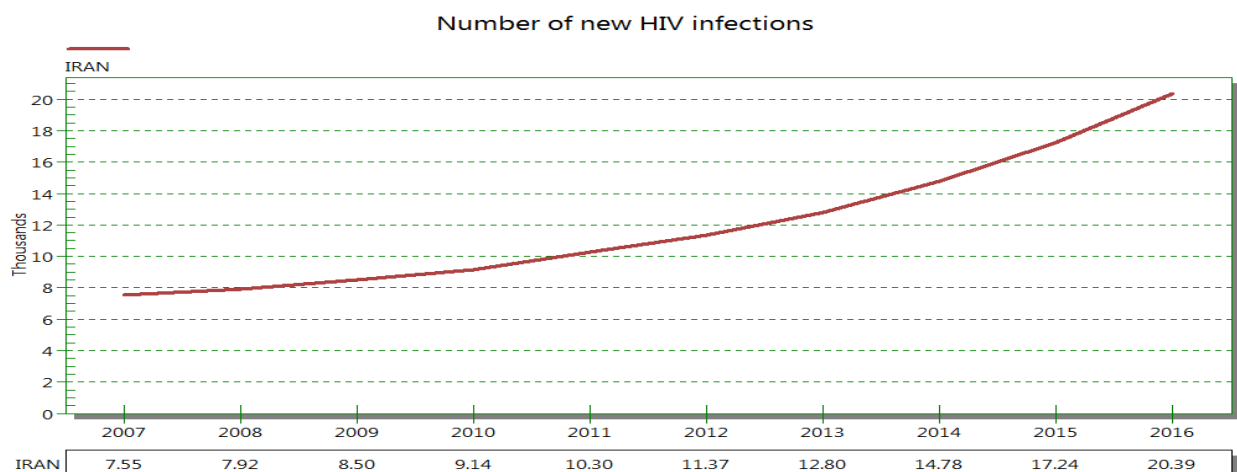
At present, direct determination of new cases of HIV and its incidence rate is generally very difficult, costly and replete with technical difficulties and thus done less often throughout the world. Likewise in Iran such a direct study does not exist.

Nevertheless, in 2010 the Regional Knowledge Hub for HIV/AIDS Surveillance (at Kerman University of Medical Science) conducted a study which were commissioned by the MOH (Center for Disease Management) and supported by UNAIDS-Iran to estimate the sizes of various subgroups of the HIV infected population using MOT (mode of transmission) method. ⁽⁶⁾

Based on these estimates the greatest number of new cases of HIV infection is among IDUs (56% with 95% CI: 47.7%-61.6%) and their sex partners (12% with 95% CI: 9.5%-15%). Furthermore, the main route of direct and indirect transmission of HIV infection in the country was determined to be unsafe injections (68% for IDUs and their sex partners) with transmission through sexual contact (34% opposite-sex and 10% same-sex contact) ranking second (Figure 7). ⁽⁵⁾ the annual incidence of HIV infection in the general 15-49 year-old population was estimated at about 21 in one-hundred-thousand. ⁽⁶⁾

Based on the same estimates in 2011, incidence of HIV for sexual partners of 4 high risk group i.e. IDUs, MSMs, client of FSWs and those with temporarily heterosexual relationship was about 121 in 100,000 per year. Based on the same estimation the highest HIV incidence rate was among IDUs with more than 2500 in 100,000 per year followed by their sexual partners with 1000 in 100,000 per year. Among female sex-workers the incidence rate of HIV was estimated about 180 in 100,000. ⁽⁶⁾ The total number of new HIV cases estimated 12800 in 2013. ⁽¹⁹⁾ (Figure 7)

Figure 6: Estimated number of new HIV cases during 2006- 2014 ⁽⁴⁾



Prevalence of HIV in Various Population Groups

Injection Drug Users: based on the 2010 bio-behavioral survey, the average prevalence of HIV among IDUs across the country is about 15% (with 95% CI: 9.5%-22.9%). Yet, the figure varies considerably from one province to another, ranging from 2.2% to 44.7%. Even though the general prevalence of HIV has not changed since the bio-behavioral survey of 2008 (which found the figure to be 15.3%) but prevalence has risen in some provinces.⁽²⁾

Sex partners of IDUs: in the 2010 bio-behavioral survey of IDUs and their sex partners, the prevalence of HIV was found to be 3.7% among female partners and 9.5% among male IDU with the figure for the total population group averaging 6.6%. Additionally the prevalence in the cities where the survey was conducted was 10.8%, 4.6% and zero.⁽²⁷⁾

Female Sex-Workers: based on the 2010 bio-behavioral survey results HIV prevalence in this category averaged 4.5% across the country (with 95% CI: 2.4%-8.3%). Yet the figure varied among provinces, ranging from 0 to 28%. Among those with a history of drug injecting HIV prevalence was found to be as high as 13 %.⁽⁸⁾

Prisoners: in the 2012 - 2013 bio-behavioral survey prevalence of HIV infection amounted to 1.4% (CI 95%: 0.6% - 2.22%). Among inmates who had a history of injecting drugs the figure reached as high as 5.42% (with 95% CI: 2.09%-8.76%).⁽²⁸⁾

MSMs: studies of prevalence among MSM are very limited and thus unrepresentative of the group as a whole. Therefore no generalized inference could be drawn in this regard. Nevertheless in the bio-behavioral survey of inmates in 2009 15.6% of men reported sexual relations with other men. Prevalence of HIV among this subset of MSM was found to be 3.7% (with 95% CI: 0.6%-18.8%).⁽²⁹⁾

Street Children: In a bio-behavioral survey of 1000, 10-18 year-old street children in Tehran, HIV prevalence in the total sample was found to be around 4%-5%. Among children who used drugs the figure reached 9 %.⁽³⁰⁾ The result of this study is not be generalizable over the country.

General Population: HIV prevalence in the general population is quite low. In a study conducted among pregnant women in 2010 in 7 provinces, have identified only four case of HIV out of 5261.⁽¹⁾

National Response to the AIDS epidemic

This section of the report deals with the national response to the HIV/AIDS epidemic in the Islamic Republic of Iran based on information and data acquired from monitoring of programs, measurement of main indicators of the report, integrated bio-behavioral survey of the HIV surveillance system, the National Policy and Commitment Instrument (NCPI) and some other studies.

Core Indicators of the Country Report

Indicators related to sexual transmission of HIV

Reduce sexual transmission by 50% by 2015

General Population

1.1. Indicator name: Young people: Knowledge about HIV prevention

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

Measurement tools: DHS study conducted in 2010 used to report the indicator for Women. The study population was women at age of 15 to 54 year.

A study about knowledge of young people was used to work out this indicator for boys. This study was conducted among 821 young people aged 15- 24 in 9 region in 7 cities in the winter of 2011. Sampling method was multiple cluster sampling. Data was gathered by a standardized questionnaire and analyzed appropriately. ⁽¹³⁾

Indicator value: Among boys at age 15 to 24 year, 20.6% gave correct response to all of the questions. ⁽¹³⁾

Among girls at age 15 to 24 year, 19.6% gave correct response to all of the questions. ⁽¹³⁾

The disaggregated figure by different questions is presented in the following sections.

Discussion: Reviewing the indicator disaggregated by questions, shows that knowledge weakness is specially prominent in rejecting incorrect believes. Regarding the effect of these incorrect believes on stigma and discrimination, it is necessary to implement appropriate program to improve the situation. Meanwhile other aspects of HIV related knowledge should be improved. DHS is the first study that measures the knowledge about HIV at a large scale including rural and urban area. This study indicates that the knowledge is lower in rural area in comparison to urban area.

1.2. Indicator name: 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

Measurement tools: Population based study is recommended.

Indicator value: At this time there is not any study to measure the indicator.

1.3. Indicator name: Multiple sexual partnerships

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

Measurement tools: Population based study is recommended.

Indicator value: At this time there is not any representative study to measure the indicator.

Discussion: In several studies such high risk sexual behaviour was observed. most of these studies reported in previous round of this report.^(26, 27) At present a study is under implementation and it will be used in next report.

1.4. Indicator name: Condom use at last sex among people with multiple sexual partnerships

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

Measurement tools: Population based study is recommended.

Indicator value: At this time there is not any representative study to measure the indicator.

Discussion: A study conducted in one district of Tehran in 2004, out of 110 respondents who said they had had more than one partner in the last 12 months period, 43.6% used condom during their last sexual intercourse.⁽⁹⁾

1.5. Indicator name: HIV testing in the general population

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

Measurement tools: Population based study is recommended.

Discussion: Regarding epidemic stage in country, this indicator is not one of the indicators of monitoring and evaluation of the strategic plan.

1.6. Indicator name: HIV prevalence in young people

Definition of indicator: Percentage of young people aged 15–24 who are living with HIV

Measurement tools: A study conducted among pregnant women referring for labour in 7 provinces in 2010. Sampling method was convenience sampling method. Blood sampling was taken after informed consent.

Indicator value: In 5 sentinel survey among pregnant women of general population which included 2758 cases, only one was HIV positive ⁽¹⁾.

Indicators related to Sex Workers

1.7. Indicator name: Sex workers: prevention programmes

Definition of indicator: Percentage of sex workers reached with HIV prevention programmes

Measurement tools: The first round of bio-behavioural surveillance among female sex workers was conducted in 2010. At first a sample of drop in centers which give services to female sex workers were selected in 12 provinces. It is tried to select at least 5 DIC in each province. At least 20 -35 female sex workers were recruited in the study in each DIC. So, approximately 150 cases were included from each province. Sampling method was convenience sampling in DICs. The data were collected by a standardized questionnaire. Dried Blood Spot was used for HIV testing. Each positive test was reconfirmed and then reported as positive. 10% of all blood samples were sent to a reference laboratory for quality control. In this study 1005 female sex workers were recruited and after deletion of incomplete questionnaire, the results of 872 cases were used for final analysis.⁽⁸⁾

Indicator value: 44.26% (386 out of 872) of study population knew where they can go if they wish to receive an HIV test and in the last 12 months, they had received condoms the figure was 38.6% (81 out of 210) for those under 25 year and 46.5% (304 out of 654) for those 25 year or more. Knowledge about location of HIV testing and receiving condom during last 12 months was 54.0% (471 out of 872) and 62.7% (547 out of 872) respectively.⁽⁸⁾

Discussion: Most of the study population was from women specific Drop in Centers. These female sex workers had lower socioeconomic status. So we should be cautious in generalizing findings to all female sex workers. There is not any similar study previously conducted for comparison. But in a study among female sex workers in Tehran in 2007, 63.9% of study population had correct knowledge about location of HIV testing.⁽³¹⁾ There is not any study about male sex workers.

1.8. Indicator name: Sex workers: condom use

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

Measurement tools: The same indicator number 1.7.

Indicator value: 531 out of 872 (60.89%) of female sex, used condom with their most recent client. This figure was 61.9% (130 out of 210) for those under 25 years old and 61.2% (400 out of 654) for those of 25 years old or greater. In the above mentioned study, using the weighted analysis, condom use in the last intercourse with a client was 57.1%⁽⁸⁾ and this figure was used as a basis for prevention planning at the national level.

Discussion: Most of the study population was from women specific Drop in Centers. These female sex workers had lower socioeconomic status. So we should be cautious in generalizing findings to all female sex workers. There is not any similar previously conducted study for comparison. But in a study among female sex workers in Tehran in 2007, 55% of study population had used condom in the last sexual intercourse with a client.⁽³¹⁾

Another study conducted among 161 FSW in Tehran in 2012- 2013. Sampling method was RDS. Condom use was 65.2% in the last sex with a client. Among 105 respondent who were answered to the question about condom use with the permanent sexual partner in the last sex, 49.5% (52 people) used condom.⁽³²⁾

There is not any study about male sex workers.

1.9. Indicator name: HIV testing in sex workers

Definition of indicator: Percentage of sex workers who received an HIV test in the past 12 months and know their results

Measurement tools: The same as indicator number 1.7.

Indicator value: 243 out of 872 (27.87%) of female sex workers, received an HIV test in the past 12 months and know their results. This figure was 25.2% (53 out of 210) for those under 25 years old and 28.9% (189 out of 654) for those of 25 year old or more.⁽⁸⁾

Discussion: Most of the study population was from women specific Drop in Centers. These female sex workers had lower socioeconomic status. So we should be cautious in generalizing findings to all female sex workers. There is not any similar previously conducted study for comparison. But in a study among female sex workers in Tehran in 2007, 20.4% (57 out of 280) of study population received an HIV test in the past 12 months and know their results.⁽³¹⁾

There is not any study about male sex workers

1.10. Indicator name: HIV prevalence in sex workers

Definition of indicator: Percentage of sex workers who are living with HIV

Measurement tools: The same indicator number 1.7.

Indicator value: Thirty out of 817 (3.7%) of female sex workers, were HIV positive. This figure was zero percent for those under 25 year old and 4.9% (30 out of 614) for those of 25 years old or more. 3.4% (3 out of 88) of female sex workers with a history of less than 1 year sex working were HIV positive and the figure was 3.7% for those with more than 1 year sex working. Using the weighted analysis, HIV prevalence in female sex workers was 4.5 %^(8) and this figure was used as a basis for program planning at the national level.

In the study conducted among 161 FSW in Tehran in 2012- 2013, there were 8 PLWH (5)⁽³²⁾

There is not any study about male sex workers

Indicators related to MSM

1.11. Indicator name: Men who have sex with men: prevention programmes

Definition of indicator: Percentage of men who have sex with men reached with HIV prevention programmes

Measurement tools: Population based study is recommended.

Indicator value: At this time there is not any study to measure the indicator.

Discussion: There is some evidences that this behaviour do occur over the country specially in closed setting such as inside prisons.^(2, 28, 29. 33) But at this time there is not any representative

and documented studies in this group. It seems there is a need to conduct specifically tailored studies in this group.

1.12. Indicator name: 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

Measurement tools: Population based study is recommended.

Indicator value: At this time there is not any study to measure the indicator.

1.13. Indicator name: HIV testing in men who have sex with men

Definition of indicator: Percentage of men who have sex with men who received an HIV test in the past 12 months and know their results

Measurement tools: Population based study is recommended.

Indicator value: At this time there is not any study to measure the indicator.

1.14. Indicator name: HIV prevalence in men who have sex with men

Definition of indicator: Percentage of men who have sex with men who are living with HIV

Measurement tools: Population based study is recommended.

Indicator value: At this time there is not any study to measure the indicator.

Indicators related to injection drug users

Reduce transmission of HIV among people who inject drugs by 50% by 2015

2.1. Indicator name: People who inject drugs: prevention programmes

Definition of indicator: Number of Syringes distributed per person who injects drugs per year by Needle and Syringe Programmes

Measurement tools: Numerator: Inquiries from Universities of Medical Sciences and Health Services and Welfare Organization. **Denominator:** Size estimation of injection drug user population

Indicator measurement: Numerator: Over a one-year period ending in September 2013, 12,626,021 free needles and syringes have been distributed.^(15,16) **Denominator:** According to several Rapid situation Assessments implemented in Iran, it is estimated that there are between 170,000 to 230,000, IDUs in Iran.^(6, 17 and 18) **Indicator value:** Between 55 and 77 needle and syringe per IDU per year were distributed.

Discussion: The coverage rised about twice in comparison to previuos report, but still behind the suitable value (200 syriges per PWID per year)⁽³³⁾ the figure needs to be improved. However it should be considered that most behavioural study among PWID indicate that a high proportion of them purchase their syringes from pharmacies. This may contribute to high rate of using new syringes in the last injection.

In spite of many useful activities, it seems that scaling up of activities needs more resources and efforts.

2.2. Indicator name: People who inject drugs: condom use

Definition of indicator: Percentage of people who inject drugs reporting the use of a condom the last time they had sexual intercourse

Measurement tools: The second round of bio-behavioural surveillance among injection drug users was conducted in 2010. This study was implanted in 10 provinces. Except for Yazd, other provinces were the same as the first BBSS among IDUs. At first a sample of centers which give services to IDUs were selected in capital city and several important cities of each province. On average 5 DICs were selected in each province. Selection criteria of centers were set according to the type of centers (DIC, MMT centers, drug treatment centers, and so on), location of centers, and the organization supervising the centers i.e. Medical Universities or Welfare Organization). On average 13.5% of IDUs recruited outside of centers by outreach teams. The data were collected by a standardized questionnaire. Dried Blood Spot was used for HIV testing. Each positive test was reconfirmed and then reported as positive. 10% of all blood samples were sent to a reference laboratory for quality control. In this study 2546 IDUs were recruited. ⁽²⁾

Indicator value: 34.1% used condom in their last intercourse with their wife/ husband, 43.1% used condom in their last intercourse with their non-paid sexual partner, 53.3% used condom in their last intercourse with their paid partner. ⁽²⁾

Discussion: It seems that scaling up of condom usage in this very important group which fuels HIV epidemic, needs more efforts.

2.3. Indicator name: People who inject drugs: safe injecting practices

Definition of indicator: Percentage of people who inject drugs reporting the use of sterile injecting equipment the last time they injected

Measurement tools: The same as indicator number 2.2.

Indicator value: 1463 out of 1595 (91.7%) of study population used sterile injecting equipment the last time they injected. The figure was 91.9% (1439 out of 1566) in male IDUs, 82.8 (24 out of 29) in female IDUs and 91.1% (173 out of 190) in those IDUs under 25 years old. ⁽²⁾

Discussion: The progress was very significant in comparison the figure in previous report which was 74.5 %. ⁽²⁵⁾ But it should be remembered that success in the field of HIV epidemic among IDUs is very fragile these need to be carefully guarded lest the programs that have been initiated are halted. On the other hand, some 9% of the IDUs had still used a non-sterile syringe in their latest injection. ⁽²⁾ This is tantamount to incidence of new cases which needs to be stopped. Therefore, these programs need to be expanded. Meanwhile lower coverage of sterile syringe-use among women IDUs justifies recent measures toward establishing centers for women and underlines the necessity of further development of such centers, particularly in the higher risk areas of the country.

2.4. Indicator name: HIV testing in people who inject drugs

Definition of indicator: Percentage of people who inject drugs who received an HIV test in the past 12 months and know their results

Measurement tools: The same as indicator number 2.2.

Indicator value: 24.78% (631 out of 2546) of the study population received an HIV test in the past 12 months and know their results. The figure was 24.2% (16 out of 66) for women, 24.8% (615 out of 2480) for men and 16.9% (45 out of 266) for IDUs less than 25 years old.⁽²⁾

Dicussion: The indicator value is low and should be improved with PIHT.

2.5. Indicator name: HIV prevalence in people who inject drugs

Definition of indicator: Percentage of people who inject drugs who are living with HIV

Measurement tools: The same as indicator number 2.2.

Indicator value: It was observed that 13.6% of IDUs (338 out of 2479) was HIV positive. The prevalence of HIV among male IDUs were 13.8% (332 out of 2417), 9.7 % (6 out of 62) in female IDUs and 6.6% (17 out of 256) for those less than 25 years old. Using the weighted analysis, HIV prevalence in injecting rug users was 15.07 %⁽²⁾ and this figure was used as a basis for prevention planning at the national level.

Discussion: The fact that HIV prevalence has not increased among IDUs as compared to the previous report, while studies in other countries indicate a rises in prevalence by up to 40%⁽³¹⁾, may be attributed to the success of Iran's harm reduction programs and the necessity of continuation of these services with expanded coverage. On the other hand studies will be conducted in regular intervals and disaggregated, to reveal in which region the changes are more prominent.

Indicators related to mother to child transmission

Eliminate new HIV infections among children by 2015

3.1. Indicator name: 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

Measurement tools: **Numerator:** Inquiries from Universities of Medical Sciences and Health Services. **Denominator:** Estimation method.

Indicator measurement: **Numerator:** From 21 September 2012 to 21 September 2013, totally 132 pregnant women received ART for prevention of mother-to-child transmission.⁽¹⁵⁾

Denominator: According to Spectrum, there were 740 pregnant women living with HIV in 2013.⁽¹⁹⁾ It should be considered that according to UNAIDS guideline recommendation the number of pregnant women who give live birth should be used as denominator, but the software cannot colculte this one, so as an alternative the of pregnant women were used.

Indicator value: 17.8% during the abovementioned period.

Discussion: 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 and it seems that some other studies are needed to achieve a more meticulous estimation of the number of HIV positive pregnant women.

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. Among 133 pregnant HIV positive women, 132 (99.2%) received ART. 56 HIV-infected pregnant out 132 received ART because they were eligible for treatment ⁽¹⁵⁾. In spite of rise in the number of pregnant women on ART, the indicator value did not changed significantly because of rise of denominator due to change in the method of estimation.

3.2. Indicator name: Early infant diagnosis

Definition of indicator: Percentage of infants born to HIV-positive women receiving a virological test for HIV within 2 months of birth

Measurement tools: **Numerator:** Inquiries from Universities of Medical Sciences and Health Services. **Denominator:** Estimation method.

Indicator measurement: **Numerator:** From 21 September 2012 to 21 September 2013, totally 99 neonates was born from pregnant HIV positive women, and 58 received a virological test for HIV within 2 months of birth. ⁽¹⁵⁾

Denominator: According to Spectrum, there were 740 pregnant women living with HIV in 2013. ⁽¹⁹⁾ It should be considered that according to UNAIDS guideline recommendation the number of pregnant women who give live birth should be used as denominator, but the software cannot colculte this one, so as an alternative the of pregnant women were used.

Indicator value: 7.8% neonate born from HIV infected women received virologic test. It should be remembered that in the previous version of national guideline, virologic was not mandatory and most neonate was followed by serologic test. All reported neonate were followed according to this guideline. ⁽³⁶⁾

96 of these neonate received 6 weeks AZT and 93 received exclusive formula milk. ⁽¹⁵⁾

3.3. Indicator name: Mother-to-Child transmission of HIV (modelled)

Definition of indicator: Estimated percentage of child HIV infections from HIV-positive women delivering in the past 12 months

Measurement tools: Spectrum software was used. ⁽¹⁸⁾

Indicator value: 31%

Discussion: Although all diagnosed neonate received prevention services, but critical point to intervene is diagnosis of HIV positive pregnant women.

Indicators related to treatment and care

Reach 15 million people living with HIV with lifesaving antiretroviral treatment by 2015

4.1. Indicator name: HIV treatment: antiretroviral therapy

Definition of indicator: Percentage of eligible adults and children currently receiving antiretroviral therapy

Measurement tools: **Numerator:** Data acquired from antiretroviral therapy registry system

Denominator: Spectrum software for estimation

Measurement Method: Numerator: At the September 2013, 4470 PLWH (Including 1165 female and 3305 male) were receiving Antiretroviral Therapy.⁽²⁰⁾ **Denominator:** Estimated by Spectrum Software, the number of PLWH who need ART across the country was 33270.⁽¹⁹⁾

Value of indicator: In September 2013, 13.4% of the total people who needed antiretroviral therapy received it

Discussion: There are concerns among some experts about the denominator, that is, estimates those in need of ART. They are worried the software has overestimated their numbers and it seems that some other studies are needed to achieve a more meticulous estimation of the number of HIV positives in need of ART.

4.2. Indicator name: Twelve month retention 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

Measurement tools: ART registries⁽²⁰⁾

Indicator value: Twelve months retention on ART for those that initiated ART during 20 September 2011 until 20 September 2012 was 85%. The figure for women was 88% and for men 84%.⁽²⁰⁾ 12, 24, 36 months retention on ART in 2006 to 2012 were showed in annex 3.

Indicators related to HIV/TB coinfection

Reduce tuberculosis deaths in people living with HIV by 50% by 2015

5.1. Indicator name: Co-management of tuberculosis and HIV treatment

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

Measurement tools: Numerator: Inquiries from Universities of Medical Sciences and Health Services. **Denominator:** Estimation method.

Indicator measurement: Numerator: Since 22 September 2012 Till 22 September 2013, 94 persons living with HIV and incident TB, received TB treatment and ART.⁽²¹⁾ **Denominator:** Following measures were taken for making estimation: By taking into account the estimated number of the people who need Antiretroviral Therapy (33,270 individuals),⁽¹⁹⁾ prevalence of TB infection in similar population (20%)⁽²²⁾ and estimation of annual incident TB in PLWH (About 7.5%)⁽²³⁾, the number of 499 will be obtained. **Indicator value:** Thus totally 18.8% of PLWH and incident TB, received anti TB and ART.

Discussion: Although 84% of those referred at least once a year to Triangular clinics screened for active TB⁽¹⁵⁾, it seem difficulty of TB diagnosis among PLWH and inadequate diagnosis of PLWH contribute to low coverage of indicator improvement in both factors may increase the indicator.

Indicators related to Policy and Environmental Factors related to HIV

6.1. Indicator name: AIDS spending

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

Indicator Measurement: A program was set up as agenda of Center of Communicable Diseases Control, titled by " National AIDS Spendings Assessment-NASA". The results will be reported in next report.

Eliminating gender inequalities

7.1. Indicator name: Prevalence of recent intimate partner violence

Definition of indicator: Proportion of ever-married or partnered women aged 15-49 who experienced physical or sexual violence from a male intimate partner in the past 12 months

Measurement tools: Population based study is recommended.

Indicator value: At this time there is not any study to measure the indicator

Eliminating stigma and discrimination

8.1. Indicator name: attitudes towards people living with HIV

Measurement tools: Population based (DHS 2010).

Indicator value: 45.6% of women 14- 49 year old do not buy vegetable from HIV positive shopkeeper and 43.1% reject the work of an HIV positive teacher.⁽¹⁴⁾

Discussion: In both questions, correct answer were lower in rural area in comparison to urban area.⁽¹⁴⁾

Eliminate HIV-related restrictions on entry, stay and residence

9.1. This indicator would be measured directly by UNAIDS.

Strengthening HIV integration

10.1. Indicator name: Orphans school attendance

Definition of indicator: Current school attendance among orphans and non-orphans (10–14 years old, primary school age, secondary school age)

Measurement tools: A population 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 9 region of 7 cities , 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.⁽²⁴⁾

Indicator value: 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.⁽²⁴⁾

10.2. Indicator name: External economic support to the poorest households

Definition of indicator: Proportion of the poorest households who received external economic support in the last 3 months

Measurement tools: Population based study is recommended.

Indicator value: At this time there is not any study to measure directly the indicator. But regarding that at this time, 100% of Iranian families have been receiving monthly financial subsidy from 14 months ago, the ratio of direct financial help is definitely 100%. Moreover, Imam Khomeini Relief Committee and Welfare Organization also provide some special financial and non-financial help to the poorest families.

Government HIV and AIDS policies

This indicator is based on a standard UNAIDS questionnaire and is designed in the framework of interviews with key informed persons in HIV/AIDS. Afterwards the responses analyzed qualitatively and the results were used. See Annex 2 and Text

Strategic Plan

History

After detection of the first HIV positive case in 1987, national response was commenced by holding AIDS Supreme Council in 1988.⁽⁴⁾ National response was first focused mainly on providing safe blood, proposing some treatment services and establishment of registration system to record the detected cases. Subsequently standard precaution was added to the above measures. Simultaneously with HIV epidemic among Iranian IDUs in mid-decade of 1990 some harm reduction measures were taken too. But till end of the decade, HIV controlling activities were mainly rendered as discrete actions, not within a strategic program framework.⁽⁴⁾ In 2001 for the first time within a nationwide program, a five year strategic plan was developed for the years 2002-2006 by Ministry of Health and Medical Education with comparative partnership of some other organizations. In this strategic plan with emphasis on partnership of all stakeholders including governmental and non-governmental sectors, 11 strategies were considered to control HIV and AIDS epidemic in Iran⁽⁴⁾

1. Education and Information
2. Safe blood provision
3. Strengthening epidemiologic surveillance system
4. Strengthening prevention of transmission of HIV through service providing centers

5. Voluntary, HIV Counselling and testing:
6. Harm Reduction
7. Care and Treatment of STDs
8. Counselling, Care and Treatment for PLWH and Their Families
9. Strengthening of Required Infrastructure
10. Strengthening applied researches
11. Socioeconomic support of PLWH and their families and those at risk of HIV

This program lacked a monitoring and evaluation plan. It could not obtain State Members' approval while being performed so that could not be entirely fulfilled in practice. At the end of its last year of operation, an attempt was exerted to evaluate it retrospectively, and subsequently a report was published on for this purpose. ⁽⁴⁾

The second strategic plan was arranged for a 3 year long period for the years 2007-2009. This program was arranged by contribution of the partner organizations and was composed of 10 strategies, 75 specific aims and 498 main activities. It developed with partnership of MOH, RCO, Prison Organization, Welfare Organization, Army Forces, MOE, Ministry of Transportation, BTO, and Imam Khomeini Relief Committee. Its strategies was similar to the first strategic plan, except that "Strengthening epidemiologic surveillance system" and "Strengthening applied researches" integrated into "establishment of epidemiologic surveillance system and data management", "Strengthening prevention of transmission of HIV through service providing centers" integrated to "Care and Treatment of STDs" and changed to "Prevention, Care and Treatment of STDs" and "standard Precaution" was added to strategies. ⁽⁴⁾

Although it didn't get the States approval, but attracted much attempts to be executed. From the second year a plan was designed for monitoring and evaluation of the program and some studies were implemented for evaluating the situation among injecting drug users, sex workers, MSMs as well as operations of the behavioral disease consulting centers. In the ending year a monitoring program was performed retrospectively. ⁽⁴⁾

The third strategic plan

The third strategic plan (2010-2014) was developed based on experiences and documentation of first and second strategic plans. ⁽³⁷⁾ It developed with partnership of all stakeholders. The role and responsibilities of all stakeholders is determined in the strategic plan. It was approved by Health High Council on 4 November 2011 and delivered by The First Vice President. It contains 10 strategies and 161 target settings. A plan is designed for its monitoring and evaluation and has a special action plan. Members of monitoring and evaluation provincial committee and provincial technical bodies including representative of county, Medical University, Education, Prison

Organization and Welfare Organization in tree session received the necessary training programs for execution of the program. The strategies of the third strategic plan are as follows:

1. Education and Information
2. Safe blood provision
3. Voluntary, HIV Counselling and testing:
4. Harm Reduction
5. Prevention of sexual transmission of HIV
6. Care and Treatment of STDs
7. Counselling, Care and Treatment for PLWH and Their Families
8. Support and empowerment
9. Establishing of an Epidemiological Surveillance and Data Management System
10. Strengthening of Required Infrastructure

The most important changes of strategies include high lightening of “prevention of sexual transmission of HIV” regarding increasing reported cases of infected by sexual route and available data about sexual behavior of high risk groups and young people.⁽³⁷⁾

Because of active partnership of all the different partners which contributed to development of current national planning, all dimensions of the control and prevention of HIV is covered. Hence, all the partners consider themselves effective and owner of the programme. As well, with respect to the achievement of the surveillance system, and monitoring and evaluation programme, its target setting seems more realistic. Its budgeting is specifically outlined and more specific criteria is used for its outlining. On the other hand, taking changes of the epidemic into consideration, made the programme to focus more on prevention of sexual transmission.

The multi-sectorial plan is covering such vulnerable people as injection drug users, spouses of prisoners, spouses of PLWH, spouses of the injection drug users, HIV infected people, women at risk (Sex-workers), peoples with sexually transmitted infections, migrants, marginal area dwellers , easily available young people, students, university student, Red Crescent young volunteers, blood receivers, girls and women, young people, prisoners, soldiers, workers whose job make them at risk, orphans at risk, mobile populations and general population. As well multi-sectorial strategy took notice of such places as prisons, schools and work-places alongside of such issues as stigma and discrimination, role of gender empowerment and equality, HIV and poverty, preservation of human rights and participation of HIV infected people. Multi-sectorial strategy also includes operational plan.

The plan is under revision at this time.

Generally it seems that appropriate efforts have been conducted in the country. The main achievements since 2011 are listed below.

Continued appropriate programs including:

- Continued intersectorial cooperation on technical aspects and planning.
- Establishment of Monitoring and Evaluation Committees.
- Increases in coverage by broadcasting and media on HIV information.
- insurance coverage for PLWH
- provision of treatment free of charge ART
- empowerment of PLWH through expansion of positive clubs and programs
- Continued harm reduction programs

Still the following important challenges remain as listed below.

- Remaining of stigma on the HIV at risk groups
- Existing of the laws that limits access to the most at risk groups specially those groups with high risk sexual behaviour specially female sex workers
- Lack of suitable programs in the field of street children
- HIV being a taboo in some organizations particularly in education system
- Inadequate interested human resources for implementing programs
- Inadequate capacity of powerful NGOs for implementing programs
- Addiction features has begun to change and increasing stimulants usage which may reduce the effect of harm reduction programs and the need to the new programs

Prevention Situation

Needle and Syringe Programs

Based on report of Drug Control Headquarters, the total number of PWID is estimated to be 200000 (170000 – 230000).^(17,18) By August 2013, there were 682 centers operating under supervision of universities of medical sciences or the State Welfare Organization that delivered free needles and syringes to IDUs.^(15,16) Over a one-year period ending in September 2013 these centers had distributed some 12,626,021 free needles and syringes.^(15,16) This amounts to 55-74 syringes per individual IDU. Although in comparison with the 2012 I.R.Iran GARP report, the figure is approximately doubled, it is still far from recommended coverage. However It seems that a significant number of IDUs are obtaining their needles and syringes from pharmacies.⁽³⁴⁾ Based on the 2007 bio-behavioral survey of IDUs 48.6% of those who had injected drugs over the preceding month had, in fact, bought the syringes and needles they had used on most occasions from a pharmacy.⁽³⁸⁾ Those who had obtained the syringes and needles they had used on most occasions from DICs and

outreach teams amounted respectively to 21% and 6.6% of the IDUs.⁽³⁸⁾ This may contribute to high rate of using sterile syringe in last injection among PWID. According to the bio-behavioral survey of IDUs in 2010, respondents continue to carry out risky behavior on a daily basis despite relatively high levels of awareness (99%) regarding HIV transmission risk factors.⁽²⁾ The study indicates that 88.8% of PWID used sterile needle and syringe in their last drug injection.⁽²⁾ Whereas the figure survey was 83.2 % in the 2007.⁽³⁹⁾ Prevalence of using discarded, used syringes and needles was found to be 3.4% and 7.8% used their own used needle and syringe in their last drug injection.⁽²⁾ A total of 12.9% had lent their syringes to another, either as a favor or in exchange for money.⁽²⁾ 37% reported using used syringes and needle over the preceding month which, however, had been their own in 76% of the cases.⁽²⁾ What this means is that some 9% of the population being studied had injected with used syringes and needles over the one-month period preceding the survey. Therefore, it seems that further development of harm-reduction programs remains a serious imperative. A study commissioned by the MOH's Center for Disease Management and funded by UNAIDS-Iran and other HIV control program partners was conducted by the Regional Knowledge Hub for HIV/AIDS Surveillance (at Kerman University of Medical Science) to determine the impact of interventions on HIV incidence. It was found that an increase in coverage level of sterile syringe programs in IDUs from 80% to 95% could lead to an estimated 75% drop in the rate of incidence of HIV infections in this population.⁽⁶⁾

Substance Maintenance Treatment

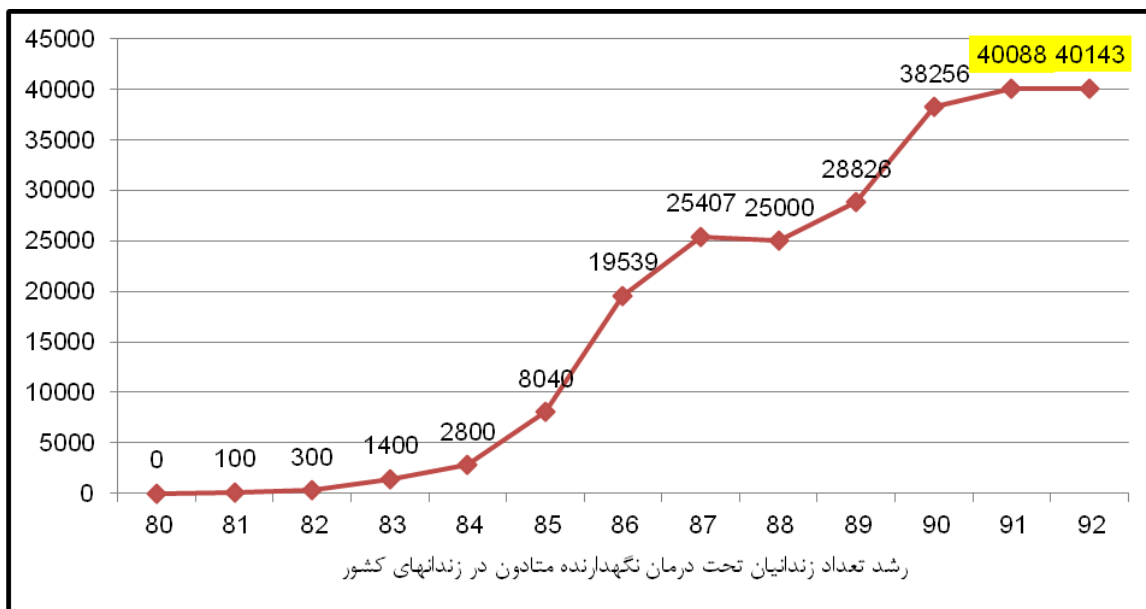
Methadone Maintenance Treatment: by August 2013 methadone maintenance treatment was being offered to IDUs at 4275 centers supervised by medical sciences universities, State Welfare Organization or Prisons' Organization. Of these, 4038 were private sector centers.^(16,17,39) Over a one-year period ending in September 2011, a total of about half a million (480921) drug users have received methadone maintenance treatment.^(16,17,39) This is certainly not to say that at any given time there were as many people being treated, nor does mean that all treatment recipients were injecting drug users. The 2010 bio -behavioral survey had found that of those individuals who had injected drugs over the preceding one-year period, 42.6% were receiving maintenance treatment at the time of the study.⁽²⁾ This figure was 33% in the biologic-behavioral survey of 2007.⁽³⁴⁾ Though the increase indicates an improvement of MMT coverage, it also underscores the need for expansion of the program. The trend of development of MMT programs in Iranian prisons has been one of growth since 2001, although in the last two year, its growth was slowed down. By February 2014, more than 40,000 inmates were receiving methadone maintenance treatment.(Figure 8)⁽³⁹⁾ An estimated 120,000 inmates, both injecting and non-injecting

drug users, have been deemed in need of substance maintenance treatment.⁽⁴⁰⁾ Therefore it seems that all this substantial progress notwithstanding, still far from all inmates in need of MMT are covered by treatment. Therefore further support for MMT is essential for extending coverage without compromising quality of treatment both at community level and in prison settings.

Another important issue pertains to indications of increased use of amphetamine like substances among drug users and MMT recipients.⁽¹²⁾ The same concern also extends to inmates.⁽²⁸⁾ Based on the biobehavioural survey conducted in 2012- 2013, 11.6% of prisoner used ALS in the last month in comparison of 2.8% in 2009.⁽²⁸⁾ It is noteworthy that 27.98% of those used ALS injected it.⁽²⁸⁾ This may compromise the success of current harm reduction programs seriously. Research for situation assessment as well as design and implementation of evidence-based interventions in this regard seems vital.

Other Substance Maintenance Treatments: in addition to MMT, buprenorphine maintenance treatment is also offered for drug users, including injectors. Opium tincture (a kind of OST medication in a form of a Tincture containing predetermined concentration of opium, which prescribed under supervision of trained Physician) solution maintenance treatment has been delivered as a pilot project during 2008-2010. Trial results suggest it to be effective for certain categories of drug users who are not suitable candidates for MMT and at this time 64000 persons are under treatment with this tincture.⁽⁴²⁾

Figure 8: Graph depicting growth of the number of inmates covered by methadone maintenance treatment nationwide



Prevention of Sexual Transmission of HIV

Condoms are provided free of charge to clients at primary healthcare network family planning units, centers for behavioral disease counselling (triangular clinics), DICs and conjugal visit rooms in prisons. Access to condoms is also possible by purchase at pharmacies and other retail venues. Variety of available condoms has improved significantly in recent years. Considerations are underway on making the female condom also available.⁽⁴²⁾

Injecting Drug Users: in the 2010 bio-behavioral survey about 50% of IDUs were found to be ever-married or married with 30% actually living with their spouses.⁽²⁾ About 59% of them have had sex with their spouses over the preceding year. About 17.5% of them reported the consistent use of condom.⁽²⁾ Nearly 41% of married or ever-married participants reported that they have not had any sexual intercourse with their spouses during last year.⁽²⁾ 22.4% reported having had commercial sex over the preceding year.⁽²⁾ Ratios of those who have used a condom in their last marital, commercial or casual sexual contact were 34%, 53% and 43% respectively.⁽²⁾ Figures for consistent condom use in the previous year during commercial and non-commercial sex were 31% and 24% respectively.⁽²⁾ The same survey found that 33.5% of IDUs had received free condoms.⁽²⁾ In the 2007 survey, the figure for those who had not had sex in the preceding year was 54% and the figures for condom use in the last marital, commercial and casual sexual contacts were 29%, 37% and 34%, respectively.⁽³⁸⁾ Again, despite positive changes, there is a long way to go in improving coverage of condom use. A study commissioned by the MOH's Center for Disease Management and funded by UNAIDS-Iran and other HIV control program partners was conducted by the Regional Knowledge Hub for HIV/AIDS Surveillance (at Kerman University of Medical Science) to determine the impact of interventions on HIV incidence. It found that an increase of condom use in IDUs from 30% to 90% could reduce new cases of HIV in their sex partners by 93 %.⁽⁶⁾

Female Sex-Workers: in the 2010 bio-behavioral survey of female sex-workers, two-thirds of the respondents reported receiving free condoms in the preceding year.⁽⁸⁾ The ratio of those who had consistently used a condom during sex with a paying partner over the preceding month was 30%. Meanwhile, 30% had never used a condom at all. In 47.7% of the cases they had not used a condom in their non-commercial sexual contact during the preceding month. 60.9% had used a condom during commercial sex in the preceding month.⁽⁸⁾ The figure was found to have been 55% among sex workers in Tehran in a study conducted in 2006.⁽³¹⁾ The comparison indicates the relative effectiveness of prevention programs that have been launched in recent years, albeit limited in scope. **A study commissioned by the MOH's Center for Disease Management and funded by UNAIDS-Iran and other HIV control program partners was conducted by the Regional Knowledge Hub for HIV/AIDS Surveillance (at**

Kerman University of Medical Science) to determine the impact of interventions on HIV incidence. It found that an increase of condom use coverage by 40% in female sex-workers and their clients (from 55% to 95%) could reduce new cases of HIV infection by 89% in both categories. ⁽⁶⁾

Sex Partners of IDUs: sexual partners of IDUs were found to have used condoms in the last sexual contact with their regular and non-regular partners in 60% and 25% of the cases respectively. ⁽²⁷⁾

Inmates: A new survey showed 19.14% had access to condom in the prison. ⁽²⁸⁾

Men who have sex with men: There are indications that the behavior does occur in certain places in Iran, particularly in confined spaces such as prisons. ^(2, 28, 29, 33)

Nevertheless, there is no reliable, documented study conducted for this category. It would seem that a thorough study of this population needs to be conducted.

HIV Information and Education

Information and educational activities have been performed for different target populations. As a matter of their nature, monitoring, documentation or measuring of coverage for such programs is generally quite difficult. ⁽⁴⁾

Youth: Activities for youth education include family education courses at universities, limited AIDS education at school level, educational courses at some municipal Culture Houses, some State broadcaster programs, mandatory HIV/AIDS & STD lectures for couples before marriage, and some activities within the framework of peer education. Other activities include establishing hotlines, development of online AIDS site, provision of educational key information in airlines, metros ,trains, bus terminals and home video networks are other activities in this field. ⁽²⁵⁾ Still it seems that these activities need to be improved. In a study conducted in 2011, a total of only 20.6% of boys responded correctly to all question on modes of transmission, prevention methods and misconceptions on HIV. ⁽¹³⁾ Table 1 shows the figures disaggregated by different questions.

Table1: Knowledge of 15-24 year boys about HIV ⁽¹³⁾

Question	Proportion of correct response
Can a person get HIV by sharing food with someone who is infected?	63.8%
Can a person get HIV from mosquito bites?	54.7%
Can a healthy-looking person have HIV?	68%
Can a person reduce the risk of getting HIV by using a condom every time they have sex?	76%
Can the risk of HIV transmission be reduced by having sex with only one uninfected partner who has no other partners?	77.3%
Correct answer to all questions	20.6%

In DHS study (2010) among a nationwide population, 19.62% of 15-24 year of women and 31.93% of 15-54 year women had appropriate knowledge about HIV.⁽¹⁴⁾ (both correctly identify ways of preventing the sexual transmission of HIV and reject major misconceptions about HIV transmission).The figures are presented disaggregated by different questions in table 2.

Table2: Knowledge of 15-24 year girls about HIV ⁽¹³⁾

Question	Proportion of correct response
Can a person get HIV by kissing or hand shaking with someone who is infected?	76.2%
Can a person get HIV by sharing food with someone who is infected?	66.39%
Can a person get HIV from mosquito bites?	42.99%
Can a healthy-looking person have HIV?	39.07%
Can a person reduce the risk of getting HIV by using a condom every time they have sex?	61.41%
Can the risk of HIV transmission be reduced by having sex with only one uninfected partner who has no other partners?	77.26%
Correct answer to all questions	19.62%

Female Sex Workers: educational activities for female sex workers are generally designed based on peer education and delivery of services at Welfare Organization supervised Women's DICs and NGO run Vulnerable Women's Counselling Centers supervised by Medical Sciences Universities.⁽²⁵⁾ In the 2010 bio-behavioral survey 91.8% of the respondents were able to correctly answer the question: "Could the chances of AIDS infection be reduced by limiting sexual relations to a single, non-infected, faithful partner?" Furthermore 96.9% held that the probability of AIDS infection could be reduced by condom use during sex.⁽⁸⁾ Less than half of the respondents of this study knew that HIV could not be transmitted by mosquito bites or sharing a meal with an infected person. Only a total of 55.3% of these individuals considered themselves to be at risk of HIV infection.⁽⁸⁾

Another study conducted among 161 FSW in Tehran in 2012-2013 using RDS sampling method, found only 20.5% of study population responded correctly to all questions about knowledge of HIV.⁽³²⁾ Correct answer to reduce the risk of getting HIV by using a condom every time they have sex, were 66.5%. 86.3% responded correctly to whether condom use can reduce the risk of HIV, 79.5% knew a healthy- looking person can be HIV infected, 40.4% knew that HIV cannot be transmitted by mosquito and 59.6% knew HIV is not transmissible by eating food with a PWLH.⁽³²⁾

Injecting Drug Users: information and education for IDUs is delivered at Triangular Clinics, outreach programs, drug treatment center, community based educational

centers, prisons, DICs and NGOs.⁽²⁵⁾ In the 2010 survey there were only a small percentage (3.1%) of IDUs who had no knowledge of HIV.⁽²⁾ This small percentage was similar to that found in the initial round of surveys of HIV behavioral surveillance in IDUs in 2007.⁽³⁸⁾ An overwhelming majority of respondents knew of the effect of condom use (95%) and limiting sexual contact to a single, non-infected partner in preventing HIV transmission (88.1%).⁽²⁾ Knowledge about sexual prevention of HIV among PWID are increasing, but its effect on the practice is limited and high risk sexual behavior is routinely experienced by them. To improve the behavior, strengthening educational programs and increasing access to prevention services in needed.

The same study indicated 99% of PWID know about the risk of HIV transmission by sharing syringes.⁽²⁾ The study showed 88.6% of PWID used sterile syringes and 7.8% used their own used syringes in their last drug injection.⁽²⁾ It seems that prevention program in the field of safe injection were more successful than safe sex. However, both fields need program strengthening.

The risk of HIV was understood by more than half of PWID, which represents a significant increase compared to the initial round of surveys of HIV behavioral surveillance in IDUs.⁽²⁾ In the initial round of surveys 48.2% of IDUs saw themselves at risk of HIV,⁽³⁹⁾ whereas in this study 61% understood the risk.⁽²⁾ Misconceptions such as believing that mosquito bites (23.4% correct answer) and sharing meals with PLWH could lead to transmission of the infection (47.5% correct answer) continue to more-or-less exist among IDUs as among the general public.⁽²⁾

Inmates: some activities have been implemented by the Prisons' Organization. Education has taken the shape of classrooms, face-to-face education, peer education and telephone counselling hotlines. Upon entering a prison, inmates receive information on harm reduction through pamphlets, group education and prison audio-visual systems.⁽⁴¹⁾ In the 2012 – 2013 survey of inmates, 24.36% of prisoners knew how to prevent sexual prevention of HIV and were able to reject misconceptions in this regard. The figure was 157% in 2009.⁽²⁾

Men who have sex with men: there are indications that the hidden behavior does occur in certain places in Iran, particularly in confined spaces such as prisons.^(2,28,29,33) Nevertheless, there is no reliable, documented study conducted for this category. It would seem that a thorough study of this population needs to be conducted.

Prevention of Mother-to-Child Transmission

Identification of HIV infected women has followed an upturning trend in recent years.⁽⁷⁾ This would seem to explain what was noted above about the increase in HIV positive children.

At present, to prevent HIV MTCT, a comprehensive program is developed entitled as strengthening linkage of reproductive health and HIV. This program has four main components (prevention of HIV infection in women and reproductive health for HIV infected women, evaluation for HIV among all pregnant women to provide care and treatment services to HIV infected pregnant women and prevention of HIV transmission to children, safe delivery among HIV infected women, diagnosis, care and treatment for HIV infected newborn) Yet, since many private-practice and academic section physicians routinely recommend HIV testing for all their pregnant patients and given the absence of any records or any reporting mechanism on HIV testing, accurate figures on the real number of tests performed are not available.⁽⁴²⁾

Nevertheless, from September 2012 to September 2013, there were 6051 women identified as at-risk of HIV infection in assessment of potential risks by public clinics. They did receive counseling and were tested for HIV and were informed of the results. 5994 (99.1%) received their test results.⁽¹⁵⁾ 37 (0.6%) were HIV infected. In addition, 667 women were tested at the time of delivery, three (0.45%) were positive.

From September 2012 until September 2013, a total of 132 pregnant women received ARV therapy.⁽¹⁵⁾ This amounts to 17.8% of the total estimated number of HIV infected pregnant women. Any pregnant woman identified as HIV positive is covered by mother-to-child-transmission prevention services. In the same period, 99 HIV infected pregnant women give live birth, 55 (58.3%) were tested by virologic (PCR) HIV testing. Three were positive. For 96 (97%) of the neonates born to these mothers ARV prophylaxes were applied for the first four weeks after birth. Neonates tested had negative virologic results at the end of the first month. 93 of the neonates were fed exclusive formula in the first six months after birth. 88 neonates received Co-trimoxazole prophylaxis.⁽¹⁵⁾

Voluntary Counselling and Testing Situation

I.R.Iran has been adopted great efforts for delivering HIV testing appropriately and extensively. The most important activities in this regard were included avoidance of mandatory HIV testing except in blood and organ donors since beginning of HIV epidemic in Iran, provision of voluntary HIV testing with the consent and confidentially, development of related guidelines and provision of rapid HIV test.⁽⁴³⁾

According to the last strategic plan for controlling HIV, target groups for HIV testing and counseling is PWIDs, FSWs, spouses of PLWH, spouses of PWID, high risk pregnant women, subjects at high risk of sexual transmission (transsexuals and MSMs), patients with sexually transmitted infection and prisoners. Nevertheless, providing access to these services considered for all people older than 15 year.⁽⁴³⁾

The strategic plan has proposed targets for coverage of these services for each of these groups. It planned that at least 50% of estimated subjects with HIV would be identified at the end of 2014.⁽³⁷⁾

Diagnosis of HIV in Iran is based on two positive ELISA tests and a positive Western Blot test. The national policy on HIV testing is based on provider initiated testing in addition to VCT, whereby efforts are aimed at providers identifying higher-risk individuals and HIV vulnerable populations in order to counsel and encourage them to volunteer for testing. This procedure has already been delineated in relevant protocols and guidelines for certain populations, such as TB patients, at-risk pregnant women, people with STIs and inmates. The guideline of HIV testing and counselling contains how to test for HIV, how to counsel, and when to repeat testing.⁽⁴⁴⁾ It also describes HIV rapid test procedures.

At present the main sites to provide HIV testing and counselling are Behavioral Diseases Counselling Centers (Triangular Clinics) and VCT sites. Prison Organization and State Welfare Organization also contribute to providing HIV testing and counseling. There are also several centers affiliated by BTO and some NGOs providing this service.⁽⁴³⁾ In recent years the public site providing HIV testing and counselling are increasing and the total number of them raised from 231 in 2006 to 446 in 2013.⁽¹⁵⁾ Meanwhile this service is provided in many public and private centers, but their exact data is not currently available. With finalization of HIV rapid test protocol, the guideline issued to all Medical Sciences and Health Services Universities (local health authorities) and currently 824 centers including behavioral diseases centers and sites, drop in centers, special centers for vulnerable women, prisoners, some selected hospitals and private clinics are providing HIV rapid testing to eligible clients. However, sometimes should be elapsed for complete establishment of this program and observation of its effect.⁽⁴³⁾ Nevertheless, counseling and HIV testing service usage usually remains low and insufficient in high-risk groups.

The most important factors involved in this topic include weak knowledge of general and key population about HIV and availability of diagnosis and treatment facilities, perception of key groups about insufficient quality of services, inappropriate location of some services, and limitation in models of providing services. In addition, poor knowledge about processes of testing and treatment, worrying about discrimination and stigma, fear and unwillingness of health care workers to work with PLWH or key groups, and social and legal obstacles are the others factors involved in this topic.⁽⁴³⁾

A recent report of World Health Organization counselor about accessibility of counseling and HIV testing in 2013, bring up worries about education of personnel in the field of counseling and HIV testing. The report suggested that especially about notification of sexual partners there are signs of weak training programs. According to this report, data registration forms are mostly designed to collect epidemiologic data

and are not appropriate for patient care. In addition, it also suggested worries about maintaining confidentiality in process of rotation forms of data registration.⁽⁴⁴⁾

Access to VCT in Various Populations:

Over a one-year period ending in September 2013, 66788 people were tested for HIV (45536 men and 21252 women). Regarding the number of centers that provide VCT, this figure needs be improved. Among those who were tested, 64056 people (95.6%) were informed about the result of their test. Among those who were tested, 1539 (0.23 %) were confirmed to be HIV positive. HIV rapid testing was scaled up in the middle of this period.⁽¹⁵⁾ After beginning widespread provision of rapid test in March 22, 2013, within 9 months after establishment, HIV testing by rapid method were suggested to 38983, and 37855 (96.3%) accepted it. 1024 (2.7%) were positive and 848 (82.8%) received confirmatory test.⁽⁴⁵⁾ Relative increase in provision of HIV testing after introduction of HIV rapid test, suggest it should be supported to provide it in more centers and simplify HIV testing provision.

Between September 22, 2012 and September 22, 2014, 5664 pregnant women received VCT in public clinics. Of them 5619 (99.2%) were informed about their test results and 36 (0.6%) were positive. 680 women received HIV testing at the time of labor and 3 (0.44%) were positive.⁽¹⁵⁾

HIV testing in different subpopulation groups

Injection Drug Users: Based on the 2010 bio-behavioral survey, 55.5% of PWID received HIV testing. Of the study population, 24.78% received HIV testing in the last year and know its result.⁽²⁾ The study indicated that 91% of IDUs knew where they could receive HIV testing if they want. Only 31.3% received an HIV test in the past 12 months and 20% do not know their results. 77.9% of PWID had a history of incarceration in the last 10 years; but just 11.4% of them received HIV testing in prison. The study shows that 60% of IDUs over the past year were in need of receiving health care services. Among these IDUs, 82.7%, referred to private section, governmental and public hospitals / clinic, charities and private infirmaries. This means that about half of PWID referred to private or non-governmental clinics during last year, but only 6.4% received HIV testing in private section.⁽²⁾ So, no doubt using this opportunity will increase coverage of HIV testing.

Sex Partners of IDUs: Thus far, 28.4% of sexual partners of PWID received HIV testing. The main VCT location used by PWID and their sexual partners was counselling centers (46.74%).Of these, 39.5% were university affiliated counselling centers, 2.63% were Blood Transfusion Organization affiliated centers and 4.61% were prison counselling centers. There was not a significant difference between women's

and men's levels of utilization of counselling centers (46.1% for men vs. 30.2% for women).⁽²⁷⁾

Female sex workers: Behavioral study on FSWs in 2010 shows that 48.3% of them have history of HIV testing. Of them 72.5% were tested during last year and 84.5% know the result of the test.⁽⁸⁾ So 30% of study population were tested and know their HIV status.⁽⁸⁾ The study shows that during the last year 53% of these women had vaginal discharge and 18% had genital ulcers, among them 39% referred to a physician because of any one of these symptoms. On the other hand, the study indicates that 71% of the study population were drug users and 20% had history of injection drug and 92% tried at least once to treat drug abuse.⁽⁸⁾ This indicated that providing HIV testing with opt-out method to FSWs referring to governmental and private clinics and addiction treatment centers is a good opportunity that should be taken into consideration.

Prisoners: There have been several studies of this population heretofore. There was a bio-behavioral survey of inmates in Kermanshah and Ahwaz in 2007⁽⁴⁶⁾ and another in 2010 which involved 27 prisons.⁽²⁷⁾ The 2007 survey found that 17.4% of inmates in Ahwaz and 28.3% of inmates in Kermanshah had a history of testing with the main venue of testing being the prison itself.⁽⁴⁶⁾ 53% of those tested were aware of the results.⁽⁴⁶⁾ Thus, 9.22% of inmates in Ahwaz and 15% of inmates in Kermanshah had both been tested and were aware of the results. Given the fact that inmates are easily accessible for HIV counselling and testing, the aforementioned service coverage seems meager. 34.6% of Ahwaz inmates and 63% of Kermanshah inmates knew the right location to seek VCTs.⁽⁴⁶⁾

Men who have sex with men: There are indications that the behavior does occur in certain places in Iran, particularly in confined spaces such as prisons.^(2, 28, 29, 33) Nevertheless, there is no reliable, documented study conducted for this category. It would seem that a thorough study of this population needs to be conducted.

MSM: Studies about prevalence of HIV in men who have sex with men are very limited and not representative for this group, thus is not applicable to a generalizable conclusion.

Assessment of Care and Treatment Situation

Service Provision System: provision of HIV care and treatment services, including ARV therapy, has been included in the National Plan. With the implementation of behavioral disease counselling centers (triangular clinics) a structure for delivery of these services has now been established.⁽³⁾ Iran's health network represents a successful example of service provision system in the region as it allows access to so many programs at the remotest levels in the field. At field level 54 local medical sciences universities or schools undertake the administration of health services. In most Provinces (31

provinces) there is at least one medical sciences university (while more than one medical sciences university or school in some provinces) that carries out this responsibility. According to the organizational chart designed by the health network, each university must establish a behavioral disease counselling center. Depending on demand and in accordance with scale, some medical sciences universities have launched more than one such center, with the number of active centers across the country now totaling 103.⁽¹⁵⁾ At the same time 126 centers are also in charge of delivering care and treatment to patients inside prisons.⁽³⁹⁾

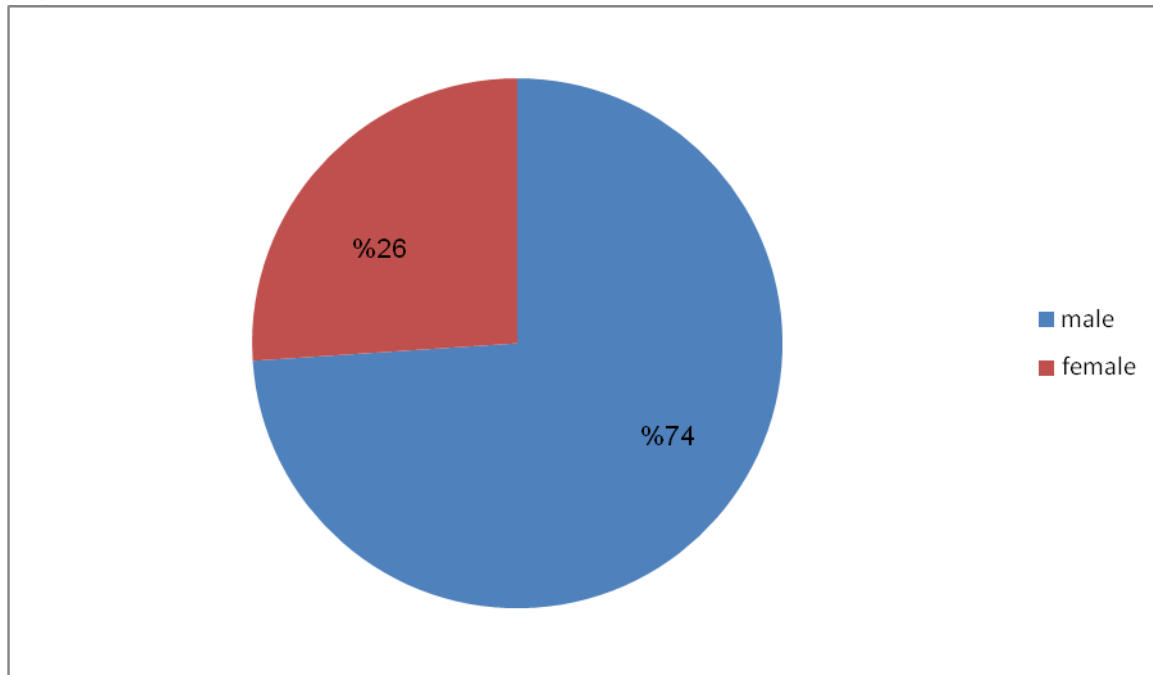
The Care and Treatment Committee bears the responsibility of developing the national guidelines under supervision of ministry of health. It comprises of representatives of MOHME AIDS Control Office, Infectious disease faculty members of medicals sciences universities as well as some practicing specialists at behavioral disease counseling centers.⁽⁴²⁾ The latest version of recommendations was revised and published in April 2011 and delivered to all physicians at behavioral disease counselling centers, infectious disease specialist working as care and treatment focal points and physicians representing the Prisons' Organization during four training sessions. The package included such headings as "Patient Evaluation and ARV Treatment for Adults", "ARV Treatment for Children", "Approach to TB and HIV Co-infection", "Approach to Common Patient Complaints (including prevention and treatment of opportunistic infections)", "Prevention of MTCT", "Prevention after Occupational Exposure", "Prevention after Non-Occupational Exposure", and "Nutrition for PLWH."⁽⁴⁷⁾ Another set of recommendations titled "HIV Counselling and Testing" will soon be published. Considering WHO 2013 recommendation and the result of HIV test, treat and retain cascade analysis, revision of national guidelines will be started soon.

ARV Therapy: procurement and distribution of ARV drugs began within the framework of the national health and treatment system in 1997. There are currently 16 types of ARV drugs available in Iran. This variety allows for the provision of a wide range of three-drug combination regimens in Iran. ARV drug prescriptions are free across the country through medical-sciences-university-affiliated behavioral disease counselling centers in accordance with the aforementioned guidelines. There are no limits either in terms of quotas or prioritization of access based on patients' sex, age, or social stratum. All cases identified that are indicated for ARV therapy (in accordance with the national guidelines) who wish to receive treatment are covered by ARV therapy free of charge.^(42,47) At present there is 36 CD4 counter over the country, working in Medical Sciences and Health Services Universities (local health authorities). The figure was 7 in 2010. To improve the capability laboratory services, 11 laboratories are being equipped with HIV virologic testing technology including qualitative and quantitative testing. These laboratories will provide services to neighbour provinces.⁽⁴³⁾

There was 4468 PLWH on ART in the end of summer of 2013, 3607 on first line regimen, 721 on second line regimen and 140 as drug resistant HIV infection. Figure 9

shows PLWH on ART disaggregated by sex. As it shows in comparison to all diagnosed patients (10.7% women and 89.3% men), women use more ART than men.⁽²⁰⁾ It may be due to more utilization of services among female PLWH. They also may more adherent and the attrition rate may be higher among male PLWH.

Figure9: Sex ratio of PLWH on ART, Iran, summer 2013

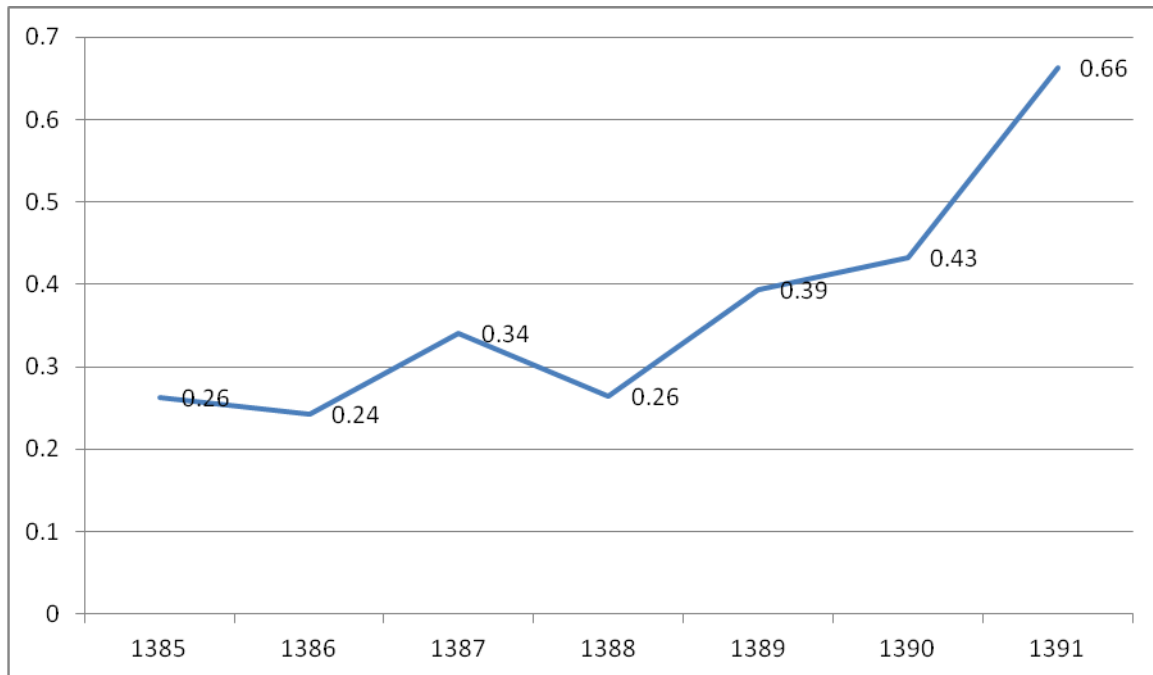


In the year ending to Sep 2012, 1291 PLWH started on ART of them, 1093 remained on treatment after 12 months period. Of 198 cases who are not on ART anymore, 102 51.5% (102) were because of death, 35.9% (71) were LTFU and 10.6% (21) were due to non compliance.

Data of ART registry shows that 2884 out of 4468 (64.5%) PLWH on ART, have a history of drug use (either current or ever).⁽²⁰⁾ This figure is suggests that health care workers do not deprive IDUs from treatment.

With the improvement of care and treatment program, eligible PLWH started on ART sooner. Figure 10 shows proportion of those started at stage 1 and 2 to those started at stage 3 and 4.

Figure 10: proportion of asymptomatic to symptomatic PLWH at the beginning of ART, 2006 -2012 ⁽²⁰⁾



Retention on ART at 12, 24 and 60 month were 82.6%, 63% and 54% respectively. ⁽²⁰⁾ In a study conducted on PLWH, using Morisky questioner, adherence rate were high in 26.4%, moderated in 41.4% and low in 32.2%.

Support situation

Social support is one of the main strategies of national strategic plan and positive prevention is one of the principles in this regard. In positive prevention approach, the objective of social support, is improving capacity of PLWH in order to improve their quality of life and reduce risk of HIV transmission from themselves to other individuals in the community. Based on this idea establishing positive clubs were considered in NSP. Today 20 positive clubs have been established around the country. All the planned activities in these clubs including life skills training, psychological support and vocational training are implemented and managed by PLWH. National Welfare Organization has some financial supports available through their positive clubs as well.

One of the main programs in the country is establishment of social support sub-committee with the leadership of Ministry of Social affair and Welfare. This committee has issued coverage of health insurance for all PLWH and their family members.

Also some rules and regulations have been developed in the country to reduce HIV discrimination included with prohibition of exclusion of HIV+ children from attending school, prohibition of exclusion from employment and removing restrictions on travel for PLWH.

Political Support, leadership and Fiscal Expenditure

According to the results of NCPI questionnaires, situation of political advocate to the HIV Control Plan was evaluated as appropriate. On HIV World Day, minister of health referred to this infection as the most important health priority, with his steady emphasize on fulfillment of the obligation by all related organizations. Deputy health minister got present in most of the sessions held for policymaking of HIV Control Plan to ensure his support to implementation of such plans.

In the Country's HIV Control Plan attempt is made to take use of partnership of non-governmental sectors and NGOs in most of the policymaking procedures, in compilation of instructions, execution, monitoring and evaluation of the programs. Most of the country's instructions lay special stress on partnership of non-governmental sectors and NGOs concerning provision of information and service delivery for harm reduction and for preventive programs.

As well, PLWH play a role in compilation of the policies, implementation and monitoring of the plans. Positive clubs, personnel of which are totally among those HIV positive people, were established in different parts of the country to optimize performance of the "positive prevention" policy, aiming at social support.

The country's HIV control plan is ran on the basis of a national strategic program which is now in its fourth year of implementation. Also all the international organizations are in cooperation with the Country HIV Control Plan for planning, policymaking, implementation, monitoring and evaluation. In this program, in addition to the different guidelines for providing information, prevention, harm reduction, care and treatment of HIV and sexually transmitted infections, there is emphasize on enhancement of the plans for reduction of stigma and discrimination too. Attraction of the clergies' and civil organizations' cooperation is another aspect of the Country Strategic Plan for HIV control.

Fiscal Expenditure

One of the important components of HIV Control Plan in Islamic Republic of Iran is timely and complete supply of financial resources needed for the proposed activities to get operational within the program, and exerting optimum management on these resources. For this purpose and in response to this demand, a program was set up as agenda of Center of Communicable Diseases Control, titled by "National AIDS Spendings Assessment-NASA". This program was proposed by UNAIDS, which after getting localized, would be applicable in all establishments and organizations of the

internal and external partners of the country HIV Control plan, and its achievements would be well comparable with that of the other countries. It is so forecasted that by application of this program, spending of the country on HIV, disaggregated by service providers as well as HIV control programs in the fields of prevention, harm reduction, care and treatment, research and development could be specified with regard to those receiving the services. Now, commencement of the first phase of the program coupled with necessary planning for attraction of full partnership of the foundations related to internal and external part of the program, would offer improved models of optimum management of the resources and at the same time would be used as an important means in making policies, implementation, monitoring and evaluation of the country HIV control plan.⁽⁴²⁾

Best Practices

In its former reports, Islamic Republic of Iran has proposed its successful experiments in establishment of Bio-behavioral counseling centers, setting up of three international educational centers at the level of Eastern Mediterranean, foundation of special centers for vulnerable women, establishing positive clubs, insurance coverage for PLWH and their families, successful approach in harm reduction specially methadone maintenance treatment and HIV prevention programs in prisons. At this period there is new programs under process, some of them listed as under:

- Achievement to the new methods of accessing to the hardly available groups in line with establishing a comprehensive system for HIV second generation surveillance.
- Enforcing diagnosis system of HIV and sexually transmitted diseases through establishment of 11 advanced diagnosis hubs in the country, including modern molecular methods.
- linking reproductive health services to the HIV control programs for the purpose of prevention of mother to child HIV transmission
- Introduction of HIV rapid test, and based on a systematic instruction, covering harm reduction centers and private sectors whose target is increasing accessibility to HIV testing and counseling .
- Organizing HIV care and treatment through annual updating of the country instructions for treatment, upbringing and continues education of focal points of care and treatment at the provincial level, and planning for expansion throughout the districts.

Major challenges and remedial actions

Challenges

As the national response to HIV/AIDs increases in a country, more major challenges confront with it. The challenges that usually have not their solutions at the time we encounter them.

It is very important to forecast probable challenges facing in the future and having realistic solutions for them.

The major challenges can be categorized as:

Challenges in the field of access to Most at Risk Populations (MARPs)

- Although access to MARPs in the field of injecting drug users and even sex workers in large cities with scaling up of drug abuse treatment programs and also implementation of Vulnerable Women Counselling Centers improved indubitably, but still there are some major gaps in access to the other categories of MARPs such as MSM that are due to cultural barriers and heavy stigma that surrounded such behaviours.
- Relative stand still in expansion of harm reduction programs and fall in its quality Harm reduction programs which were scaled up appropriately in open and closed settings in the beginning of the program, in recent years had slowed down. In addition, expansion of harm reduction in closed setting faced shortage of financial and human resources.
- Change in patterns and type of psycho stimulant drugs. I.R.Iran has great success in expansion of drug treatment, after significant scale up of maintenance treatment in community and closed setting. Nowadays Iran has a new challenge in the field of psycho stimulant drugs which is producing and consumption of amphetamine type stimulants among current or ex drug users. Seizure report of ATS in Iran is increasing in recent years. A study in 2012 in six provinces showed 84% had ever used ATS and of them 30% injected it. (48) A study among PWID in 6 provinces in 2013 showed 84% of study population had ever used ATS and 30% ever injected it. This change in pattern of drug use in association of with increased high risk behaviour and ATS use in prisons is alarming and can flourish HIV epidemic among PWID and other sub population.

- Serious inadequacy of treatment services for psychoactive and methamphetaminic drugs across country and inadequacy of experience among health care personnel working in this field.

Challenges in the field of general population:

- Young people are still one of the dominant groups of the population. Different studies show HIV related knowledge of youth. If this problem stay for a long time due to cultural limitations and barriers can increase sexual transmission.
- Increase in divorce rate in recent years is one of the other challenges that engage young population and could be a potential cause for increase in sexual partners.
- Rural population with more than 30% proportion of the population and urban population in small towns had not easy access to appropriate HIV prevention services.
- Increase in recreational use of ATS.

Challenges in substructures:

The challenges ahead of the 3rd National Strategic Plan (NSP) are at most similar to the first and second NSPs in some fields;

- Delay in approval and conveying of 3rd NSP to responsible organizations.
- Insufficient participation of all stakeholders in different levels of government and ministries that are involved with implementation and evaluation of the NSP.
- Inadequacy of systematic coordination between “HIV/AIDS” and “drug abuse” related programs at the national level.
- Insufficient programs for capacity building and empowerment of NGOs and civil societies that lead to human and social resources limitation.
- Insufficient participation and involvement of private sectors in HIV/AIDs related programs.
- Insufficient focus on rural population in drug abuse related programs.
- Risk of reduction or interruption of GFATM fund that can cause discontinuation of some important programs, especially those that cannot get sufficient budget from national resources due to continued sanctions
- Jeopardy of interruption of global found which may lead to the stop of projects that their financial support cannot be continued because of sanctions

Some Suggested remedies

- Many of the challenges cited in substructures section, can be reformed by strengthening National AIDS Committee Secretariat as a national coordinator.

- Facilitating the registration process of NGOs and civil societies working in the field of HIV and empowering them.
- Establishing encouragement mechanisms for involvement and participation of private sectors including big industries in HIV/AIDS programs such as tax exemption and other available tools
- Integration of harm reduction programs and HIV testing and counselling in primary health care system
- Simplification of the protocols for detection of PLWH in order to increase access to these services
- Compiling strategic plan for drug abuse prevention, treatment and harm reduction programs for increasing coverage of the programs. Until that sufficient budget should be available to achievement to the minimum coverage required.
- Compiling and integrating ATS harm reduction programs in current harm reduction programs.
- Compiling post divorce education curriculum as well as pre marriage education for at risk couples
- Implementation of need assessment, and feasibility study for establishment of centers especially designed for providing services and facilities for MSMs
- More advocacy for implementation of skill based education focused on HIV prevention in the curriculum of students in high schools and universities.
- More informational and general population education using mass media and especially national radio and television networks.

Support from the country's development partners

- ✓ The share of development partners in funding needed for HIV/AIDS prevention and control has improved since the previous report, a trend that is expected to continue. Rejection of Iranian proposals due to new Global Fund classification of recipient countries may hurt this trend and stop certain current projects for which government funding is not possible. The termination of international assistance will most particularly hurt harm reduction interventions since such services are generally offered by NGO and the private sector and the government would face both funding deficiencies and legal restrictions if it were to outsource these services.
- ✓ 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.
- ✓ Support of international organization for HIV programs to remove sanctions which jeopardize harm reduction programs

Monitoring and evaluation environment

M&E Committee Structure

At national level, the National M&E Committee composed of representatives of the partner of national plan including governmental sectors, private sector, NGOs, delegates of research centers and representatives from medical sciences universities, agents of the international organizations, PLWH, and the Ministry of Health and Medical Education who act as secretariat at the national level. The universities of medical sciences act as secretariat at the provincial level. At the national level, the main objective of this committee, is compilation of the core and ancillary indicators and its protocol including the measurement tools and methods, gathering and analysis of data, measuring the indicators and developing the reports and distributing them over the country. One of the main objectives of national M & E plan is determining the situation of HIV epidemic over the country and national response to this epidemic.

Measures to define HIV epidemic

In order to clarify situation of HIV epidemic and in line recommendation of WHO, activities are ongoing to implement the second generation of surveillance system in Iran. Components of this system include:

Case registry System: Cases identified and confirmed according to national guideline are reported to the Center of Communicable Disease control. Each case report includes such information as gender, age, mode of transmission, and whether or not the AIDS stage of the disease has been entered and whether or not the patient has died. A summary report is produced every three months and the reports and the database used in this report and several other national reports. A comprehensive computerized registry and reporting system is developing which will be implemented soon.

ART Registry System: All cases receiving ARV drugs including ART, PEP, PMTCT are reported by universities of medical sciences to Center of Communicable Disease Management and registered in a data bank. Reporting intervals are every 3 months and reporting variables include demographic characteristics (age, sex and marital status), disease related variables (date of

HIV diagnosis, the date and criteria of ART initiation, changing or interruption ART regimen and its causes) and drug regimen. The data of this system were used in this report and several other national reports.

Sentinel sites: This program is ongoing in most provinces. It is conducted in the different population cohorts including injecting drug users, inmates, sex workers, truck drivers, sailors, soldiers, people with STDs, workers working far from home and pregnant women. In some provinces more than one group is included. There is a national guideline to implement sentinel sites. The guideline is currently under revision. Regarding different procedure in implementation of these sentinel sites; analysis of its results should be cautious. The data of this system were used in this report and several other national reports.

Bio-Behavioral Surveillance System: Biobehavioural surveys in a organized and planned manner in determined intervals is running. The main target groups are PWID, FSW, and prisoners. The data of this system were used in this report and several other national reports.

Estimation of the Number of PLWH: At present, based on software introduced by UNAIDS estimation of the number of PLWH disaggregated by age, sex and total number in need of ART is running at regular intervals. According to the latest estimation the total number of PLWH is around 90000. In addition, a project using network scale up to estimate size of at risk population is implementing..

STI reporting system; STI reporting system was established in country since 1998, based on etiologic and syndromic case reporting and syphilis screening in certain groups as well. This system was revised in 2006 and reporting was limited to urethral discharge and genital ulcer and 3 etiologic agent including Gonococcus, Chlamydia and syphilis to ease the process and its effectiveness. In order to promote the application of this information in the national programmes, complementary studies to this system is added, or at the stage of designing. Integration of estimating prevalence of gonococcal and chlamydial and syphilis infection in the FSW BSSs and etiologic evaluation of different syndromes are example of such studies. Meanwhile Mode of Transmission studies is running in the country to estimate the share of each population group in the epidemic.

Annexes

Annex 1: Preparation Process of the Report

The work begun in January 2014 by developing the working group..

Data Collection Methods: In order to obtain the data required to monitor national programme activities, extensive correspondence took place with medical universities and governmental organizations (the Prisons Organizations, State Welfare Organization, Blood Transfusion Organization, Ministry of Education, 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 validate, these data was shared with key informants to compare with data from other sources. Eventually data was triangulated and finalized.

Reports of BSS studies which are routinely supervised by CDC were reviewed, for some specific analysis of BSS data, the group contacted directly to principle investigator of these studies.

Searching strategies was included with online search of Farsi and English scientific websites. Also request letters was sent to all universities of medical science, HIV related organizations, and key informants in order to collect all available information which may be included in the report.

In order to compile the National Composite Policy Index, key individuals from the governmental and non-governmental sectors as well as representative of PLWHs were identified and interviewed using the questionnaire in 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: Over the duration of drafting of the report, program partners have been involved in preparing various parts, with each part of the text being discussed, reviewed and approved by program partners via email. Prior to submission, program partners reviewed the draft of the report. The report was finalized after discussion and revision of the initial draft.

Annex 2: NCPI

This indicator is based on a standard UNAIDS questionnaire and is designed in the framework of interviews with key informed persons in HIV/AIDS. The interviewees included 5 representatives of government organizations, 3 representatives of civil society, international organizations active in AIDS-related issues and a representative of PLWH. Selection of interviewees was based on the opinion of the main committee of the study. This is a qualitative study aiming to find and identify the views and opinions of officials and key persons. Given the specific goals of the project, an attempt was made to have a wide range of program partners, stakeholders and key persons with experience in HIV/AIDS represented in the study.

After receiving completed questioners, data was extracted and analyzed by qualitative methods. The report was generated considering differences and similarities in key informant's responses to each question. In some questions key informants were asked to rate the programs between 0-5 (0 the weakest and 5 the strongest) and 0-10 (0 the weakest and 10 the strongest) based on their viewpoints. The mean rate was calculated and reflected in the report. In qualitative question which there was diversity in answers and conclusion was not possible, all different viewpoints were reflected in the report. Onsite data entry was done based on this report.

Annex3: Table of retention on ART

Survival on ART after 12 month ART initiation disaggregated by sex and age-groups										
Year of ART initiation	Age group	Number of those starting ART			Number of those retained on ART after 12 month initiation			Percentage of cases survived on ART after 12 month initiation		
		female	male	total	female	male	total	female	male	total
2011	15>	19	32	51	19	29	48	100%	91%	94%
	15<	274	904	1,178	240	757	997	88%	84%	85%
	total	293	936	1,229	259	786	1,045	88%	84%	85%
2010	15>	17	8	25	15	5	20	88%	63%	80%
	15<	192	618	810	174	500	674	91%	81%	83%
	total	209	626	835	189	505	694	90%	81%	83%
2009	15>	6	9	15	6	6	12	100%	67%	80%
	15<	112	512	624	105	412	517	94%	80%	83%
	total	118	521	639	111	418	529	94%	80%	83%
2008	15>	11	5	16	10	5	15	91%	100%	94%
	15<	76	437	513	67	328	395	88%	75%	77%
	total	87	442	529	77	333	410	89%	75%	78%

Survival on ART after 24 month ART initiation disaggregated by sex and age-groups										
Year of ART initiation	Age group	Number of those starting ART			Number of those retained on ART after 24 month imitation			Percentage of cases survived on ART after 24 month imitation		
		female	male	total	female	male	total	female	male	total
2010	15>	17	8	25	15	5	20	88%	63%	80%
	15<	192	618	810	169	455	624	88%	74%	77%
	total	209	626	835	184	460	644	88%	73%	77%
2009	15>	6	9	15	5	6	11	83%	67%	73%
	15<	112	512	624	105	357	462	94%	70%	74%
	total	118	521	639	110	363	473	93%	70%	74%
2008	15>	11	5	16	10	5	15	91%	100%	94%
	15<	76	437	513	64	290	354	84%	66%	69%
	total	87	442	529	74	295	369	85%	67%	70%
2007	15>	5	4	9	5	4	9	100%	100%	100%
	15<	54	319	373	46	214	260	85%	67%	70%
	total	59	323	382	51	218	269	86%	67%	70%

Survival on ART after 36 month ART initiation disaggregated by sex and age-groups										
Year of ART initiation	15> 15<	Number of those starting ART			Number of those retained on ART after 36 month imitation			Percentage of cases survived on ART after 36 month imitation		
		female	male	total	female	male	total	female	male	total
2009	total	6	9	15	5	6	11	83%	67%	73%
	15>	112	512	624	99	325	424	88%	63%	68%
	15<	118	521	639	104	331	435	88%	64%	68%
2008	total	11	5	16	9	5	14	82%	100%	88%
	15>	76	437	513	62	257	319	82%	59%	62%
	15<	87	442	529	71	262	333	82%	59%	63%
2007	total	5	4	9	5	3	8	100%	75%	89%
	15>	54	319	373	43	186	229	80%	58%	61%
	15<	59	323	382	48	189	237	81%	59%	62%
2006	total	3	1	4	3	1	4	100%	100%	100%
	15>	39	234	273	34	145	179	87%	62%	66%
	15<	42	235	277	37	146	183	88%	62%	66%

Survival on ART after 48 month ART initiation disaggregated by sex and age-groups										
Year of ART initiation	15> 15<	Number of those starting ART			Number of those retained on ART after 48 month imitation			Percentage of cases survived on ART after 48 month imitation		
		female	male	total	female	male	total	female	male	total
2008	total	11	5	16	19	4	23	173%	80%	144%
	15>	76	437	513	62	237	299	82%	54%	58%
	15<	87	442	529	81	241	322	93%	55%	61%
2007	total	5	4	9	5	2	7	100%	50%	78%
	15>	54	319	373	43	164	207	80%	51%	55%
	15<	59	323	382	48	166	214	81%	51%	56%
2006	total	3	1	4	3	1	4	100%	100%	100%
	15>	39	234	273	33	130	163	85%	56%	60%
	15<	42	235	277	36	131	167	86%	56%	60%
2005	total	2	3	5	2	3	5	100%	100%	100%
	15>	27	134	161	21	81	102	78%	60%	63%
	15<	29	137	166	23	84	107	79%	61%	64%

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