Vision is looking beyond the obvious
Success is doing something about it

The Nepal HIV Investment Plan

2014-2016

Government of Nepal
Ministry of Health and Population
National Centre for AIDS and STD Control
Teku, Kathmandu

October 2013

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October 2013

Supported by

UNAIDS

UNAIDS' Vision: Zero new HIV infections. Zero discrimination. Zero AIDS-related deaths.

Mission: UNAIDS, the Joint United Nations Programme on HIV/AIDS, is an innovative partnership that leads and inspires the world in achieving universal access to HIV prevention, treatment, care and support. UNAIDS fulfils its mission by:

- **Uniting** the efforts of the United Nations system, civil society, national governments, the private sector, global institutions and people living with and most affected by HIV;
- **Speaking out** in solidarity with the people most affected by HIV in defense of human dignity, human rights and gender equality;
- **Mobilizing** political, technical, scientific and financial resources and holding ourselves and others accountable for results;
- **Empowering** agents of change with strategic information and evidence to influence and ensure that resources are targeted where they deliver the greatest impact and bring about a prevention revolution; and
- **Supporting** inclusive country leadership for sustainable responses that are integral to and integrated with national health and development efforts.

The Nepal HIV Investment Plan 2014-2016

To keep an effective and efficient HIV response on Nepal's national agenda as a 'national public good,' beyond 2015, this "Nepal HIV Investment Plan 2014 to 2016" is all about: Moving from what we know, to what we do.

The *first set of priorities* of focus are investments in basic programme activities and critical enablers to achieve HIV prevention within the most affected key populations and geographical areas with the highest HIV burden:

- Female sex workers who inject drugs on a regular basis;
- Other people who inject drugs;
- Street-based female sex workers;
- Transgender sex workers, and
- Male sex workers.

Other priorities are:

- Migrant and mobile populations and their families, geographical focus areas in Nepal that are under-served, and with the highest need, in the Far-West and Mid-West of the country;
- Other female sex workers
- Females who are the partners of males who inject drugs;
- Other Transgender people, and
- Gay men and other men who have sex with men.

With Nepal's adoption of the June 2013 WHO HIV treatment guidelines, and application of UNAIDS' "Treatment 2015," initiative, the basic programme priorities for treatment and care are:

- Rapid scale-up of HIV testing, and
- Antiretroviral treatment for all HIV positive people who belong to the key affected populations, regardless of CD4 count. The other remaining population will be on antiretroviral treatment, based on the WHO June 2013 HIV treatment guidelines.

Critical enablers where Nepal will invest are:

- Reaching and maintaining high HIV testing and treatment coverage;
- Establishing relevant, essential, and effective public-private partnerships throughout the continuum of care;
- Implementing a "test, Ttreat and retain" (TTR) programme;
- Implementing effective HIV adherence programmes, through government and communities' public-private partnerships, and
- Developing and rolling-out Community Test and Treat Competence (CTTC).

Drastic changes must and will be made to do the right things and to do them right. These transformations will be driven by evidence of what works for making the right investments to innovate Nepal's HIV response.

For instance:

- The existing peer education/outreach worker/drop-in centre (DIC) modality will be professionalised;
- Key affected populations (KAP) will be further disaggregated into sub-populations;
- Application of information and communication technology (ICT) will include eHealth (electronic health) and mHealth (mobile health);
- Hepatitis C/HIV co-infection will be addressed, and
- The latest technology of pre-exposure prophylaxis (PrEP) for HIV sero-discordant couples will be considered.

As a matter of moral and ethical obligation, the elimination of vertical transmission of HIV (eVT) will be achieved, because this can and must be accomplished, so that no child is born with HIV in Nepal, and mothers are kept alive and well.

The Nepal HIV Investment Plan calls for an HIV response of a scope, scale, intensity, quality, innovation and speed that will save the maximum number of lives, to keep people healthy, and to avert as many HIV infections as possible. People are at its centre and it calls for national solidarity and mutual accountability, as well as for a well-resourced, well-researched, and rigorously monitored HIV response in Nepal.

LIST OF ABBREVIATIONS

AEM	Asian Epidemic Model
AIDS	Acquired immunodeficiency syndrome
ANC	Antenatal care
ART	Antiretroviral therapy
CD4	Cluster of Differentiation 4
CDC	United States of America Centres for Disease Control and Prevention
CM	Community mobiliser
CTTC	Community Test and Treat Competence
DFID	United Kingdom Department for International Development
DIC	Drop-in centre
eVT	Elimination of vertical transmission (of HIV)
FDA	United States of America Federal Drug Administration
FSW	Female sex workers
GIZ	German International Cooperation
GV	Gender violence
GDP	Gross domestic product
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
HIV	Human immunodeficiency virus
HLM	United Nations High Level Meeting
HTC	HIV testing and counselling
IBBS	Integrated biological and behavioural surveillance (survey)
IDU	Injecting drug user
IP	Investment Plan
IRW	In-reach worker
KAP	Key affected population
MSM	Men who have sex with men
MSW	Male sex workers
NGO	Non-governmental organisation
OW	Outreach worker
PE	Peer educator
PMTCT	Prevention of mother to child transmission (of HIV)
PrEP	Pre-exposure prophylaxis
PWID	People who inject drugs
PWID-M	People who inject drugs-male
PWID-F	People who inject drugs-female
STI	Sexually transmitted infection
SW	Sex workers
TB	Tuberculosis
TG	Transgender people
TGSW	Transgender sex workers
TTR	Test, Treat, and Retain
UN	United Nations
UNDAF	United Nations Development Assistance Framework
USAID	United States of America Agency for International Development
USD	United States of America Dollar
VCT	Voluntary counselling and testing

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MESSAGE FROM THE HEALTH SECRETARY

Government of Nepal
Ministry of Health & Population
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Ramshahpath, Kathmandu
Nepal

Ref: .....

Date : 30th October 2013

Message

Vision is looking beyond the obvious
Success is doing something about it

The Nepal HIV Investment Plan is not the product of an academic or scientific exercise; it has come together after many months of hard work by a team of dedicated government, community, and external development partners.

Founded on the principles of UNAIDS' Investment Framework and that of a National Strategic Plan of the Third Generation (NSP3G), our NHIP will drive the next three years of the Nepal National HIV Strategy 2011-2016. It prioritises key actions that must be taken for Nepal to successfully achieve the 'Getting to Zero' vision. It spells out the scope, scale, and intensity of innovative initiatives to be implemented with a speed and quality that are urgent, necessary and non-negotiable. It also sets out the need to operate within an accountability framework that highlights shared responsibility and national solidarity.

As the Secretary of the Ministry of Health and Population, I congratulate us all for the extraordinary work that has gone into Nepal's HIV Investment Plan. It has already begun to fulfil its purpose: domestic HIV funding as well as resources from international donors and funding mechanisms such as the Global Fund to Fight AIDS, TB and Malaria are aligned and ready to finance a bold, strong, and harmonised HIV response in Nepal.

Dr. Praveen Mishra
Secretary

ACKNOWLEDGEMENTS

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This national investment plan is a renewed call for coordinated action from the public and private sectors, civil society and international partners to reduce Nepal's HIV burden. Drawing on programmatic data and a 2013 review of Nepal's national response, a 4-month participatory process was undertaken to develop this plan.

Developed in the context of the downward trend in global HIV funding, the introduction of GFATM requirements for a cost-sharing performance-based approach, and the projected resource gap for carrying out the last three years of Nepal's HIV Strategy 2011-2016, we strategically prioritised our approach to HIV programming and implementation. This plan calls for significant focus on reducing the number of new HIV infections and HIV-related deaths through universal access to prevention, treatment and care services and targeted, evidence-informed investments that benefit key affected populations.

There is a pressing need for action in Nepal to tackle: our alarmingly low testing levels among those most affected; the unacceptably low vertical transmission elimination coverage; the programmatic and social barriers that prevent key populations at higher risk from accessing effective and efficient services; and other sexually transmitted infections, tuberculosis and viral hepatitis.

Moreover, the time is over when we can hide our urgent investments and actions behind 'hard to reach.' The guiding principles of this investment plan are: human rights; community leadership and engagement; evidence-informed policies; and outcome and impact-driven public health approaches. It is structured around the rapid scale-up of HIV testing and antiretroviral treatment (ART) for key affected populations. This is Nepal's Test, Treat and Retain ('TTR') paradigm! eVT (the elimination of vertical transmission of HIV) and keeping mothers alive and well are also key to Nepal's success in addressing HIV.

Nepal's HIV Investment Plan is based on a carefully crafted health economics model that embraces innovation, such as the roll-out of the Nepal Community Test and Treat Competence (CTTC) model as the foundation for community-led HIV testing and treatment; a programme for HIV sero-discordant couples; and an efficient results-based transformation of the drop-in centre, peer educator and community worker modality. This plan calls for a strong partnership for the control of TB/HIV co-infection. Cost-effectiveness and cost benefit form the basis of this plan, necessitating exemplary financial management, accountability, and no room for wastage.

The NHIP will play a pivotal role in ensuring that current and future domestic and external resources have appropriate programme relevance, are in concurrence with Nepal's HIV programme objectives and goals, and contribute to the effectiveness and efficiency of the entire national HIV response.

I acknowledge the NHIP Advisory Committee and Steering Committee, and the inputs of several Government of Nepal line ministries, constituencies of key affected populations, our international partners and expert consultants, who have put so much effort into this plan, and will do so now for its implementation to ensure that Nepal's national response is always a step ahead of the vicious dynamics of HIV.

Dr. Naresh Pratap KC
Director

EXECUTIVE SUMMARY

1. The investment plan for Nepal 2014-2016 emphasises the importance of focusing on Key Affected Populations (KAP), then goes one step further to disaggregate relevant KAP into sub-populations, guided by infection risk dynamics and context.
2. The first priorities identified for prevention are: female sex workers who inject drugs on a regular basis (FSW WID); other people who inject drugs; street-based female sex workers (FSW); transgender sex workers (TG SW) and male sex workers (MSW). These populations are all identified as having the highest HIV prevalence among the KAP and need to be addressed with specific and robust investments to achieve meaningful outcome results. For TG, MSM, and people who inject drugs (PWID), a minimum 60% coverage is a first priority. For this, the scope of the investments has to shift from 'easier to reach' to those with the highest prevalence rates.
3. Other priorities identified for prevention are migrant and mobile populations and their families in the underserved areas with highest need, in the Far-West and Mid-West of the country; other female sex workers; females who are the partners of males who inject drugs; and gay men and other men who have sex with men (MSM).
4. Developing the Nepal Community Test and Treat Competence (CTTC) approach for community-led HIV testing will be essential, and will be achieved through public-private partnerships. For this, a radical transformation of the traditional peer educator (PE)/ outreach worker (OW)/community mobiliser (CM)/drop-in centre (DIC) modality will be vital; focusing on in-reach and essential community competence.
5. The first priorities identified for treatment and care are rapid scale-up of HIV testing and antiretroviral treatment (ART) for people who are HIV positive and for key affected populations, at high coverage rates. Essential to this will be the establishment of effective private-public partnerships and the implementation of the "test, treat and retain" (TTR) programme, which includes implementation of effective adherence programmes, in cooperation with communities.
6. The other priority in the area of care and treatment is the scale-up of ART to include all others, according to Nepal's HIV treatment guidelines.
7. Because HIV testing rates in Nepal are alarmingly low across the board - with, for instance, testing coverage of PWID at 21%, MSM at 42%, FSW at 54% and MSW at 65% in the Kathmandu Valley - the scaling up of ART will be impossible without a massive increase in testing, especially of KAP. This repeated finding provokes some hard questions about the effectiveness of the 'targeted interventions' that Nepal currently invests in.

8. The effectiveness of the HIV programme in addressing sexual HIV transmission in KAP versus the high STI rates in these groups questions the validity of their reported condom use.
9. Further, for PWID, who have almost doubled in numbers compared to previous estimate done 4-5 years back, the needles and syringes that have been disseminated are six times lower than the estimated need.
10. Effectiveness and efficiency of KAP programmes are key issues to be addressed by investors in Nepal's HIV programme in the coming years. This will result in greater demands being placed on accountability systems and the building of improved performance-based indicators as critical programme enablers.
11. During the process leading up to the development of this investment plan, five areas were identified for investments that were not fully explored, or were not adequately addressed to date. They are: migrant and mobile populations and HIV - this is the recent focus of a special UN working group, as part of the UNDAF; HIV sero-discordant couples, for which there is no strategy at present; elimination of vertical transmission of HIV (eVT) to achieve 'No child born with HIV in Nepal,' which is severely hampered by current, unacceptably low eVT coverage; and hepatitis C and HIV co-infection, for which HIV funds and public health 'architecture' will help establish Hepatitis C as a public health priority in Nepal.
12. The investment plan development process flagged the importance of developing innovative HIV testing and counselling (HTC) modalities to significantly increase the uptake by KAP.
13. A range of critical enablers were identified for investment in programmes of a scope, scale, intensity, quality and speed to make a lasting impact. HIV testing stands out as the most urgent one to address. Without a substantial scale-up of HIV testing, everything else to prevent and treat HIV will fail. Another important programme enabler for investment is the collection, generation, analysis, translation and use of relevant and reliable strategic information. Social enablers include investments in programmes to address gender violence (GV), starting with mobile populations; social cohesion; accountability; punitive laws and their interpretation; and zero tolerance for all forms of HIV-related discrimination.
14. Preliminary costing results show that the ART scale-up could reach approximately 15,000 adults and 1,200 children at the end of 2016. This will substantially increase the present ART spending – assuming that HIV testing increases to create the necessary demand. The investments in activities to prevent HIV are expected to exceed the present level, due to an emphasis on scaling up and intensifying work with and for key affected population groups, and sustaining a sufficient service level. The work with KAP, especially PWID, needs to increase significantly since this group has almost doubled over the past 2-3 years, and the effectiveness of such programmes needs to be improved.

1 BUILDING THE HIV INVESTMENT PLAN

Nepal has committed to the targets of the 2011 High Level Meeting on AIDS and has a prioritized National Strategy to:

- Reduce new HIV infections by 50% by 2016, compared to 2010;
- Reduce HIV-related deaths by 25% by 2016 through universal access to treatment and care services; and
- Reduce new HIV infections in children by 90% by 2016.

The HIV Investment Plan in Nepal builds on these priorities and investigates how these can be best achieved within the years 2014-2016.

1.1 Objectives of the Investment Plan

- Estimate the cost of HIV prevention and treatment activities from 2014 to 2016.
- Assess modes of transmission to be addressed in this investment period.
- Identify specific strategies that are likely to have the greatest potential for achieving the 'Getting to Zero' goal.
- Estimate the resources required to implement these activities and strategies.
- Develop a detailed and 'costed' operational component for the period 2014-2016.
- Serve as the foundation for strategic resource mobilisation.

Based on available data and information and numerous consultations, and complemented and backed up by literature searches, the IP presents 'the 4Ws': what? interventions; whom? to cover with services; where? to implement; and when? to implement.

2 SITUATION ANALYSIS

The key affected populations (KAP) are the main focus of the NHIP. In Nepal these include female sex workers (FSW), transgender sex workers (TG SW), male sex workers (MSW), transgender people (TG), gay men and other men who have sex with men (MSM), people who inject drugs (PWID), and mobile and migrant populations.

The total estimated adult HIV prevalence is 0.28 per cent in Nepal (July 2013), with a prevalence of up to 6.3 per cent among PWID in the Kathmandu Valley.

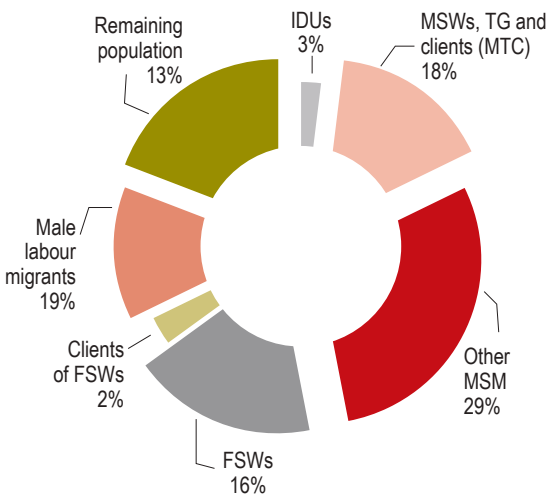
2.1 Epidemiology, data and information

The trend in new HIV infections in Nepal shows that the epidemic peaked in 2000 with almost 10,000 new cases per year. This has declined to slightly more than 1,000 new annual HIV infections in 2012. This drop is indeed a good achievement. It is to be expected that there will be not much change in HIV prevalence among KAP, particularly those that are large in terms of population size (e.g. PWID and MSM). It is also not expected that there will be much change in the number of new infections per year over the period 2014-2016. The majority of HIV-infected people in Nepal are males – about two-thirds - and the age group most affected is between 25 and 49 years. The geographic areas with the most HIV-infected people are in the Kathmandu Valley, highway districts and the Far-Western development region, where most of the KAP are located. The mobile and migrant populations, going to India, and their families mostly live in the Mid and Far-Western development region of the country.

It is estimated that there are currently around 49,000 people living with HIV in Nepal. Out of these, 'MSM/TG' account for 15% of the total. These are followed by male labour migrants and clients of FSW at 10% and 4%, respectively. Lower risk males and females account for 36% and 30% of all people living with HIV in Nepal, due to their larger numbers in the population, although their HIV prevalence is much lower.

In Nepal HIV is largely driven by sexual transmission, accounting for more than 85% of the total new HIV infections in the country. In the coming years most new infections are expected to originate from the broad, undifferentiated group of 'MSM/TG'. This 'group,' which accounts for 47% of *new* HIV infections, is comprised of two sub-groups: one comprising MSW + TG SW + TG and their clients, and a second sub-group labelled 'other MSM.' The work leading up to the development of the investment plan found that the lumping together of these important sub-population groups was inappropriate. The investment plan, therefore, recognises *four* sub-groups due to their different epidemiology and risk dynamics, namely: TG SW, TG, MSW, and MSM.

FIGURE 1 **Estimated New Infections by key populations in Adults (15+)**



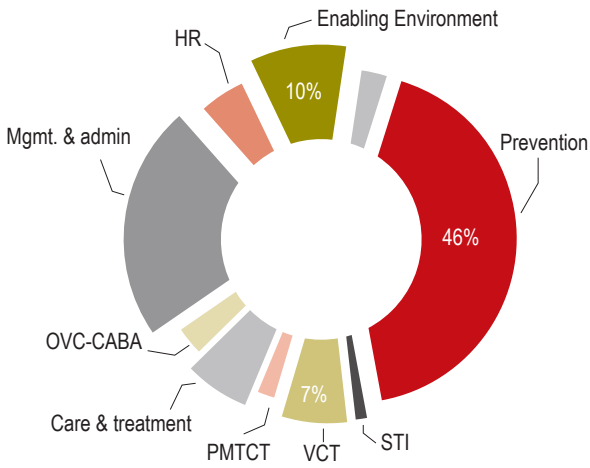
Source: NCASC, National HIV Infection Estimates, 2012

The second largest group, as pertaining to new HIV infections in Nepal, is the population of male labour migrants, accounting for 19% of new HIV infections; followed by FSW, who account for 16% of new HIV infections. Low risk males and females contribute 13% of new infections. PWID and clients of FSW contribute 3% and 2% respectively *(Figure 1)*.

The recent review of the national HIV response in Nepal (June 2013) made note of the difficulties in obtaining information on resource allocation to monitor resource flows according to need.

The most recent data show that activities to prevent HIV receive the bulk of the funding, namely 46%. In a concentrated epidemic we would expect the highest proportion of resources to be allocated for prevention amongst KAP, although 46% compared to only 7% being spent on treatment is not an optimal distribution. This is a key indicator that HIV treatment coverage is low despite improvements since 2009-2010 (3,226 people on ART in 2009; 7,719 in 2012). A scale-up of ART, especially for KAP, is imperative – particularly since there is scientific evidence that 'treatment is treatment, and treatment is prevention.'

FIGURE 2 **Resource allocation 2009-2010**

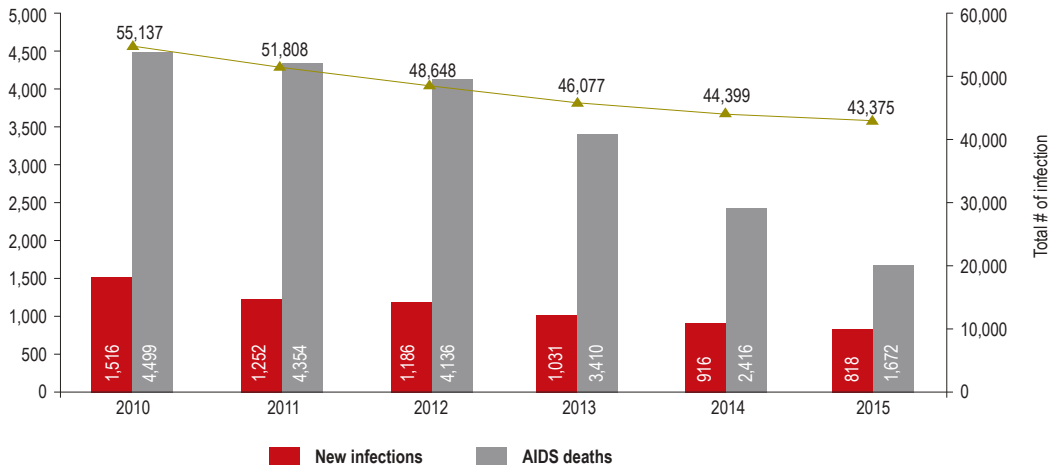


Source: HSCB, Resource Inflow of HIV and AIDS Programme in Nepal-2010

Management and administration of the HIV programme costs 23% of the total resources. This percentage is even higher when taking into consideration that 'prevention' also includes a substantial amount of resources for administrating the implementation of the prevention interventions targeting KAP. This is at the highest end within the Asian context, where 7-15% is the norm. The cost of creating and maintaining enabling environments constituted 10% of the total in the period 2009-2010, and VCT 7%.

The greatest shortcoming of the information about resource allocation is the missing breakdown of the prevention component(s). It is important to have such disaggregation for allocating resources to the greatest identified need. Such prioritisation is imperative, and forms the foundation of the IP.

FIGURE 3 **Estimation and projection of people living with HIV, AIDS deaths and new HIV infections**



Source: NCASC, National HIV Infection Estimates-2012

It is projected that the number of people living with HIV in Nepal will decrease from 55,137 in 2010 to 43,375 in 2015 due to the decline in new HIV infections. With the change of the ART protocol from a CD4 count of 350 to 500, in accordance with the 2013 WHO HIV treatment guidelines, and the consideration of TTR for KAP in Nepal, the demand for ART – at present catering for 7,800 people living with HIV – can be expected to increase dramatically in the coming years. This is provided that KAP come forward and get tested, and those who test positive enter directly into treatment. Such a development would not only increase the quantity and quality of life for HIV-infected people, it will also provide a high level of protection for HIV negative people exposed to HIV.

3 CRITICAL ISSUES FOR NEPAL'S NATIONAL HIV RESPONSE

3.1 Foreign aid dependency

The latest data on HIV spending stems from the National AIDS Spending Assessment in 2007. It shows that government spending was 3.5% of total spending on HIV-related activities. The biggest spending on the HIV programme came from the bilateral donors and funding mechanisms, which provided 67% of the total HIV funding in Nepal. USAID's share was 49%, and DFID's 37% of bilateral spending. Multilaterals and the GFATM provided the money for 24% of the spending in 2007. International NGOs were responsible for 5.6% of total spending. While 100% of the government funding was reportedly spent, compared to only 75% of the funds allocated by bilateral and multilateral donors, it is clear that Nepal's HIV programme is heavily dependent on foreign aid.

The 2011 UN High Level Meeting (HLM) political declaration recommended that countries substantially increase the contribution from their domestic funds to HIV. Considering Nepal's modest GDP per capita of USD 619 (World Bank 2011), hardly any bilateral or multilateral organisation expects this to happen in Nepal any time soon, although the government has increased its spending on HIV over the last three years through its contributions to the pooled funding mechanism for health. Donor funds are not as generously granted as five years ago. Money is getting tighter in donor countries due to the global financial crisis, and priorities are shifting to support countries with the highest HIV prevalence. This is also the case with the international financing mechanisms, such as the GFATM. In addition, and more importantly, donors demand more transparency and accountability for the resources they make available to countries.

3.2 Systems issues

As the June 2013 review of the Nepal HIV response shows, services are not always delivered in the most effective and efficient way. There is duplication and fragmentation of services at district and village levels, and much could be gained by improved cooperation between providers of services. The cooperation between NGOs working towards preventing HIV in key affected populations is limited. Key affected populations have a tendency to stay away from government public health services, since they claim not to trust these services, while staff reportedly does not treat them with respect. The health services and NGOs working with KAPs need to improve their dialogue to find solutions that increase demand for needed services: HIV testing, STI treatment and ART. The lack of effective dialogue may be a key barrier for KAP to test and, if found HIV positive, enter treatment.

3.3 Service delivery issues

Cooperation between government, private, NGO, and community service providers needs to urgently be established and improved to address the most crucial HIV programme failure at present: the lack of testing by key affected populations, leading to a situation where only few HIV positive persons are on ART. As the investigation into the characteristics of the burden of HIV disease in Nepal revealed, testing levels among KAP are low; for most, alarmingly low. Of PWID, in Kathmandu valley, only a low 21% has ever had an HIV test (IBBS 2011).

Experience has shown that HIV prevalence among PWID who share needles and syringes can increase from 5% to 50% within months. PWID who share needles and do not use condoms consistently must test at least twice per year. Additionally, for FSW, the testing rates in Nepal are far from adequate: 54% test in a year, and even fewer street-based FSW test, as only 45% has ever been tested for HIV. The programmes are paid for providing, at a minimum, a basic package of services as defined by the Commission on AIDS in Asia, and HIV testing of the most affected populations will be the most basic of smart investments for decreasing Nepal's HIV burden.

The effectiveness of the current HIV programmes must be improved. HIV testing, a key programme element, is not being undertaken on a large enough scale, and in spite of statistics showing high condom use rates, the STI rates amongst KAP tell another story. STI prevalence amongst PWID is 14%; moreover, needle and syringe provision is low, and far below the need. In 2011 only 35 needles and syringes were distributed per PWID per year – when the need is estimated at a minimum 200 per PWID per year. STI rates are very high for SW and TG. A distinction between TGSW and other TG who are not sex worker cannot be made, due to the unfortunate lumping together of these KAP in the collection of data, and thus in reporting. Among 'SW/TG,' STI prevalence is reported at a high 33%. This is an additional indication that their reported condom use (in surveys) of 68-90% may be exaggerated.

3.4 Testing and Treatment

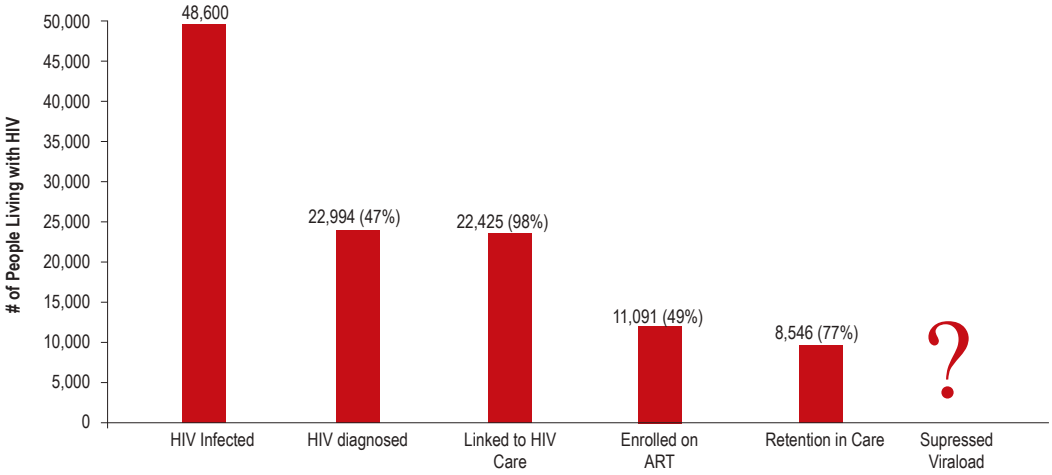
Antiretroviral therapy is normally considered successful when it reduces the viral load of a person living with HIV to undetectable levels. Research shows that people who have an undetectable viral load in their blood are more likely to live a long and healthy life and are less likely to pass HIV to others.

For a person living with HIV to achieve an undetectable viral load, they need access to a continuum of services: HIV testing and diagnosis, linkage to appropriate medical care, and other health services, support while in care, access to antiretroviral treatment if and when they are ready, and support while on treatment. This sequence of steps is commonly referred to as the *HIV treatment cascade* or the *HIV care cascade*. Unfortunately, the cascade isn't seamless and some people "leak" out and are lost at each step, due to barriers to getting tested, staying in care, and starting or adhering to antiretroviral treatment. These barriers include:

- poor access to services;
- [self] stigma and discrimination;
- poverty, food insecurity and homelessness, and
- mental health and addiction issues.

As a result of these leaks at different points in the continuum, only a small proportion of people living with HIV are engaged in all the steps needed to achieve an undetectable viral load. It is a serious concern that we do not have reliable and relevant data to show a true reflection of the treatment cascade for Nepal. With what we have available, it may look something like this:

FIGURE 4 **Current engagement in the HIV treatment cascade in Nepal**



Source: NCASC, Routine Programme data and HIV Infection Estimation 2012.

3.5 Critical enablers

During the process of developing the Nepal HIV Investment Plan, a range of critical programme and social enablers were identified for much-needed investment if the HIV response in Nepal is to be improved. The critical *programme* enablers include:

- First and last: fast and focused implementation of rapid HIV testing by the communities, and the implementation of a robust eVT (elimination of vertical transmission) programme at the ANC level in rural areas
- Rapid HIV testing campaigns, nationally and locally
- Developing HIV test and treat competence in communities (CTTC)
- Adherence to ART through private-public cooperation initiatives, for, with, and by KAP
- Leadership coordination/cooperation among implementers at the regional and district levels
- No duplication of services – ending of fragmentation, and making services efficient and effective

- HIV-competent government services 'outreach'
- HIV-competent community services 'in-reach'
- Zero tolerance for HIV-related and KAP-related discrimination
- Reliable and relevant strategic information collection, generation, translation and use
- Real and effective TB-HIV coordination
- Use of modern information and communication technology (mHealth and eHealth).

The critical *social* enablers identified include:

- Encourage all programmes to address GV – starting with migrant and mobile populations
- All programmes must encourage social cohesion
- Accountability and redress mechanisms must be in place at all service levels – both public and private
- Punitive laws must be revoked and the interpretation of vague laws used to target certain populations must be scrutinised
- Respecting the rights of all – whoever they are, wherever they are.

4 REAL IMPACT OF INVESTMENTS

In order to ensure value for money in investments in HIV, the main guiding principle of resource allocation is cost-effectiveness. Cost estimations in the IP are based on the Rapid Costing Approach (ADB and UNAIDS 2004) developing unit costs per key intervention(s) per year; e.g. the cost of covering a standard package of services for one FSW per year. The standard packages' cost components are similar to the content outlined by the Commission on AIDS in Asia (2009), using an average cost per component amongst Nepal service providers, be these government institutions or NGOs.

The programme effectiveness of activities to prevent HIV is guided by variables such as: HIV and STI prevalence; sizes of key populations; coverage of service provision; condom use; and needles and syringes. The data is triangulated with the literature findings of cost-effectiveness studies in Asia of KAP populations, including one study from Nepal by T. Bondurant (2010). The ideal approach would have been to carry out fresh cost-effectiveness studies for this investment plan. However, Nepal does not use the Asian Epidemic Model (AEM) that would have provided HIV infections averted per intervention, assuming coverage reached and using more sophisticated variables than those used in the analysis.

4.1 Focus areas built on evidence

The investment plan delivers only specific background for the first and other priority choices. This does not mean that other HIV activities will stop or not be carried out. For example, anyone who perceives himself or herself at risk for HIV can enter a free public health STI clinic or HIV testing centre. **It will be those investments of a scope, scale, intensity, quality and speed, *in the first and other priorities*, that will have the biggest impact on driving Nepal's 'Getting to Zero' goal.** All priorities are in accordance with the National HIV Strategy 2011-2016, and with the targets set at the 2011 High Level Meeting on AIDS.

The priorities will be to work with KAP as well as with the sub-groups of these KAP. When assessing HIV prevalence amongst the key affected population groups it became clear that the groupings used so far were not accurately aligned with their epidemiology and infection dynamics. For the purpose of the investment plan and for future HIV planning and costing, 'FSW' have, therefore, been disaggregated into street-based FSW, FSW who inject drugs regularly, and other FSW. The 'MSM/TG' group has been disaggregated into four groups: TG SW, MSW, TG, and high-risk MSM. The programmatic issue is that if such distinctions are not applied, there is a risk that those who are perceived to be 'harder to reach' will not be sufficiently covered by HIV services.

First priorities: Based on these principles, the investment analysis shows that the best buys for Nepal would be to reach and sustain coverage at 80% of KAP: FSW, PWID, and high risk TG and MSM. The recent HIV programme review showed that the present PWID programme has deficiencies that urgently need attention, as one of the first priorities in the coming years. PWID service coverage is low and needs to be significantly scaled up, and programme effectiveness must be improved. More specifically, PWID-M need to adopt safer injecting behaviour via behaviour modification training, steadily available commodities (needles and syringes), and services (treatment of STI, Oral Substitution Therapy and community-operated HTC at least twice a year). According to literature surveys, this is on par with what is generally known to work in this area. However, the primary focus areas (scope) are the FSW who inject drugs (FSW-PWID), street-based FSW (SB-FSW), transgender sex workers (TG SW), and male sex workers (MSW). These groups have lower service coverage rates than the other FSW, PWID and MSM. They are perceived as harder to reach through 'outreach,' and are not attracting sufficient attention in service provider programmes. This needs to drastically improve during 2014-2016. Ideally, programme and service coverage for these highly vulnerable KAP must be at a minimum 80%, with a service package that addresses their specific prevention and harm reduction needs. For example, a strategy for FSW-PWID could be to ensure that as many as possible enter OST services.

And again, the ideal would be to support 100% of these reached KAP groups to test – and if testing HIV positive – provide ART to improve life expectancy and achieve the prevention effect of ART, regardless of CD4 count.

Current ART coverage in Nepal is around a low 30%. This will need to rapidly improve. Today, Nepal is not harvesting the benefits of the prevention effect of ART, especially for its key affected population groups. At the end of 2013 approximately 9,000 people living with HIV will be part of the ART programme. It is expected that it would be realistically possible to reach 15,000 people living with HIV though a "test, treat and retain" (TTR) programme that would include an effective adherence component through public-private partnerships between government and civil society. This would increase the ART cost per year from approximately USD 3.7 million per year at present to approximately USD 4.5 million in 2016.

An effective eVT programme is another first priority, and it will need special efforts and key investments to reach acceptable coverage levels to approach the target of reducing new HIV infections in children by 90% by 2016. Paediatric ART coverage is low due to a sub-optimal eVT programme. The scale-up is expected to double from the present 672 in 2013, to a minimum of 1,200 at the end of 2016. This is provided that the eVT programme takes off and more pregnant women who are members of the key affected populations are tested and enter the ART programme. Moreover, all HIV+ pregnant women need to receive ART, regardless of their CD4 count.

The scale-up of targeted interventions for KAP, with a special focus on the most vulnerable, and the scale-up of ART for adults, infants and children will only be possible if the HIV testing coverage for these populations is appropriately addressed during the period 2014-2016.

Other priorities: People who migrate scarcely receive the appropriate HIV services, due to their specific characteristics of being away from their communities in Nepal for most of the

year. Some HIV programmes have been able to reach spouses with awareness programmes in the Far-West and Mid-West of Nepal, where the majority of mobile and migrant populations live. The outcomes of these interventions are not documented at present, although anecdotal 'evidence' is available from some of the NGOs working in the areas. Evidence-informed investments must be made in programmes that are developed and implemented for and by these mobile populations and their families, based on the lessons that were learned over the past years in Nepal and in countries such as Bangladesh with large numbers of labour migrant populations – especially those going to India. Given the large population size - over half a million male migrant labourers, and their spouses - it will not be possible to aim for 80% or even 60% coverage for migrants, except their spouses, as the investment plan argues for other KAP. HIV prevalence among male migrant labourers is lower than among the 'first priority' KAP. However, because of the size of this population, the NHIP has allocated the highest amount of resources to migrants.

Investments need to be made in eVT programmes and services for pregnant women and their partners in the Far-West and Mid-West regions, through comprehensive ante-natal care (ANC), including health education and HTC, at the lowest public health provision level. This will only be possible if rapid HIV tests are used and a strict referral system is established and operational that both women *and* men can access. 85% of women in Nepal use ANC services at least once, an opportunity the HIV programme can and must take advantage of.

Females at higher risk for HIV, such as the female partners of males who inject drugs (PWID-M) and of MSM, are considered as an other priority in the Investment Plan. They too need to be reached by the eVT programme. At present, Nepal does not have a strategy for HIV sero-discordant couples (two people who are married, cohabitating, or in a premarital partnership, with one of the partners being HIV+ and the other partner being negative). Investing in a programme for HIV sero-discordant couples is strongly advised. The WHO (2012) recommends that in a sero-discordant couple the provision of ART to the positive partner can significantly decrease the risk of transmission to the negative partner, or, potentially, the provision of antiretrovirals (ARV) to the negative partner—termed pre-exposure prophylaxis (PrEP)—can help to prevent HIV acquisition. Another potential benefit is couples testing together, with the sharing of their results, so that they can support each other, if one or both partners are HIV-positive, to access and adhere to ART, and benefit from the services to eliminate mother-to-child transmission of HIV. Moreover, findings from recent studies indicate that a high level of PrEP adherence can be achieved in settings with active adherence monitoring and counselling support. Also, PrEP comes along at a moment when it could potentially help reverse HIV rates among TG and MSM. The US Centres for Disease Control and Prevention (CDC) recently calculated that, if HIV infections continue to rise at current rates, half of young gay men in the USA will have HIV by age 50. In July 2012, the US Food and Drug Administration (FDA) approved use of Truvada as the drug of choice for PrEP, for men who have sex with men and heterosexual men and women.

Another key investment will be in Community Test and Treat Competence (CTTC), as an innovative way of working in and with communities, to identify community strengths and stimulate positive attitudes and actions to increase HIV testing of their own community members through *in-reach*. CTTC is based on the core principle that communities can apply their own intrinsic skills and competencies rather than focusing on deficits and weaknesses,

and reliance on external experts and support. This is a paradigm shift that is much needed for sustainable public health outcomes. A transformation of the current peer educator/outreach worker/community mobiliser/DIC modality is essential, to create a performance-based basic programme modality, with improved clarification of roles and responsibilities, and expanded competencies, in support of the Nepal TTR programme. Standardization of the community in-reach workers' results-oriented job descriptions and remuneration are also important. This standardization will create coherence within the different NGOs as well as create a more effective network of community in-reach workers.

Investments in programmes for incarcerated people are important, since vague punitive laws allow police to arrest drug users, sex workers, and transgender women, and many end up in prisons and custodial institutions where they are exposed or expose others to HIV (and TB), and might be cut off from the HIV services they rely on outside the detention centres.

Innovation is essential and one strategy will be the implementation of an eHealth and mHealth network throughout Nepal. This will revolutionize the healthcare system in Nepal and how healthcare is delivered. eHealth and mHealth recognize the transformative potential that information communication technologies (ICT) hold for the healthcare system in Nepal. Specifically, mobile telecommunications technologies will open new opportunities for innovation in health data collection, supply chain management, and patient monitoring and treatment. Moreover, mHealth offers the opportunity to improve health literacy through the use mobile phones, which offers access to healthcare systems with the press of a button. eHealth will be a great innovation to prevent duplicate HIV testing, and to link patient records across service providers. Through the installation and use of biometric systems in HIV programmes, some of the possibilities that could greatly impact the fight against HIV in Nepal include: tracking drugs, supplies and services; minimizing duplication; training healthcare workers; supporting patients and educating the public; as well as diagnostic applications; training applications; distance learning courses; and public outreach and in-reach applications, including awareness and testing campaigns.

5 RESOURCE NEEDS, BASED ON VALUE FOR MONEY

5.1 Highest impact scenarios

The NHIP prioritises the actions and strategic allocation of resources for reducing the country's HIV burden, over the next three years. The success of Nepal's HIV Investment Plan is hinged upon the country's "test, treat and retain" (TTR) programme that will be institutionalised through public-private partnerships between government and civil society – especially communities of those who are the most affected by HIV. The TTR programme will drastically improve the scope, scale, intensity and quality of Nepal's HIV testing and treatment.

The highest impact scenario is targeting KAP with high coverage of effective interventions, such as TTR. The coverage of KAP needs to be at least 60% to reduce the burden of disease. For those identified with the *highest* risks, the HIV programmes need to achieve a high 80% coverage. This means that KAP must test at least twice per year, and service providers must ensure that this is a key focus in coming years. The resource needs during 2014-2016 for KAP and the expected scale-up of ART are shown in Tables 1 and 2.

TABLE 1 Estimated resource need for first priority prevention interventions 2014-16

Areas	2013/2014	2014/2015	2015/2016	Total
Transgender sex workers	391,843	548,580	768,012	1,708,436
FSW who inject drugs	63,939	83,121	102,303	249,363
Street-based FSW	689,138	697,542	714,350	2,101,031
MSW	1,510,528	1,661,580	4,545,315	7,717,423
PWID	2,884,913	3,830,738	5,058,470	11,774,122
HIV Testing and Counselling	136,528	182,876	201,246	520,649
eVT	1,363,316	1,498,767	1,688,079	4,550,162
ARV Treatment and Retention	5,574,217	6,690,619	7,969,329	20,234,165
Total	12,614,422	15,193,823	21,047,104	48,855,351

Source: *MoHP/NCASC. NHIP Plan of Action 2014-16*

TABLE 2 Estimated resource need for scaling up adult ART 2014-16

No. of PLHIV on ARVs	2014	2015	2016	2014-16
Total no. on ART, cum.	**11,068**	**13,068**	**15,068**	
No. of new ART cases	**2,500**	**2,500**	**2,000**	7,000
Total no. continued ART	**8,568**	**11,068**	**13,068**	
1st line cost (USD)	2,499,265	2,950,885	3,402,505	8,852,655
2nd line cost (USD)	828,772	978,532	1,128,292	2,935,596
TOTAL ART COST (USD)	**3,328,037**	**3,929,417**	**4,530,797**	**11,788,251**
Cost of monitoring, 1st year	537,036	537,036	429,629	1,503,701
Cost of monitoring, cont.	1,342,967	1,734,823	2,048,307	5,126,097
Adherence	66,748	68,148	57,748	192,643
Training/year	12,500	12,500	10,000	35,000
Total Cost (USD)	**5,287,288**	**6,281,923**	**7,076,480**	**18,645,691**
Average cost (USD)	478	481	470	476

Source: *MoHP/NCASC. NHIP Plan of Action 2014-16*

5.2 Resource Gap Analysis

Pledged contribution and financial gap

Depicted below is an overview of the amounts pledged by external donors during the preparation of the National Investment Plan (2014-2016). This overview also includes estimated amounts from the government and other sources.

TABLE 3 Overview of Future Pledged and Estimated Amount, by Source

Resources (USD)	Fiscal Year		
	2013/2014	2014/2015	2015/2016
A. Estimated Resource Need	42,202,139	45,091,127	53,559,369
B. Pledged and Anticipated Amount			
UN Agencies	1,041,438	688,737	-
Bilateral	6,289,386	5,383,504	4,559,462
I/NGOs	836,228	621,329	776,661
Global Fund	18,108,751	17,056,706	
Government of Nepal	2,750,849	3,025,934	3,328,528
Pool Fund (other than government contribution)	657,125	722,837	795,121
C. Total (Pledged and Anticipated)	29,683,777	27,499,047	9,459,772
Gap	12,518,362	17,592,080	44,099,597

Source: *MoHP/NCASC. HIV Round 10 Grant Renewal Request*

The Government of Nepal has, since 2011, maintained a dual stream of resources to the National Response to HIV: 1) through its regular support to the National Center for AIDS and STD Control, and 2) through the Pool Fund for Targeted Intervention Programme. The anticipated resources from the government, shown in the table above, are the sum of its regular support to NCASC, as well as its contribution to the National Response to HIV through the Pool Fund. The Targeted Intervention Programme, implemented by the NCASC and financed through the Pool Fund, has become an indispensable part of the National Response to HIV. With its significant contribution to the national response and smooth resource absorption rate, the government-implemented Targeted Intervention Programme, although scheduled to run only until July 2014, is actually expected to continue in the future. It is reasonable to assume, therefore, that the government will continue to make resources available to the HIV response through the Pool Fund, as well as through its regular contribution to NCASC. Disregarding rare exceptions such as a partial budget, the government allocation to the entire health sector as well as to the national HIV response has grown at more than 10% annually. For the purposes of estimating the total anticipated government resources available for the coming three years, it is projected that both regular resources as well as resources through the Pool Fund will also grow at 10% annually.

The pledged amount from external sources, along with the anticipated domestic sources, clearly shows a shortfall in the total amount required for the implementation of the National HIV Investment Plan (2014 -2016) to the scale of USD 12.5 million in fiscal year 2013/2014, USD 17.59 million for fiscal year 2014/2015, and USD 44.09 in fiscal year 2015/2016.

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APPENDIX 2
EVIDENCE OF COST-EFFECTIVENESS OF KAP INTERVENTIONS, ASIA

Inter-vention	Cost/HIVA	Cost/DALY	CER	Country and source
FSW				
-	USD (2012) **7,622-17,514**	USD (2012) **371-852**		Myanmar (Alban 2012)
	USD (2011) **7000-14000**	USD (2011) **488-976**		Cambodia (Alban and Nitsoy 2011)*
	USD (2008) **105.5**	USD (2008) **10.9**		India (Prinja et al 2011)
	USD (2006) **984**	USD (2006) **38**		India (Dandona et al 2010)
	USD (2004) **59-98**	USD (2004) **3.3-5.5**		India (Fung et al 2007)
MSM				
-	USD (2012) **Cost-saving**	USD (2012) **Cost-saving**		Myanmar (Alban 2012)
	USD (2011) **19440-38880**	USD (2011)**1332-2664**		Cambodia (Alban and Nitsoy 2011)*
	USD (2008) **1592-1497**	NA		Thailand (Beyrer et al 2011)
MSM/VCT	I$ (2002) **14197**	I$ (2002) **695**		China (Wang et al 2011)
	USD (2006) **232**	USD (2006) **9**		India (Dandona et al 2010)
IDU				
NSP+MMT	USD (2012) **Cost-saving**	USD (2012) **Cost-saving**		Myanmar (Alban 2012)
NSP+MMT	USD (2011) **31200-41600**	USD (2011) **2332-3109**		Cambodia (Alban and Nitsoy 2011)*
MMT	NA	USD (2009)**3550-QALY!**		Vietnam (Tran et al 2011)***
NSP	I$ (2007) **526-753**	I$ (2007) **57-82**		China (Zhang et al 2011)
NSP	I$ (2004) **779-1016**	USD (2003) **27-69**		Nepal (Alban et al 2008)
NSP	I$ (2004) **2228-4950**	I$ (2006) **137-289**		Pakistan (Alban et al 2007)
NSP	I$ (2002) **1905**	I$ (2002) **74**		Bangladesh (Guinness et al 2006)

Note: thresholds for Cambodia are: < I$ 1769 = very CE; < I$ 5217 = CE
** Includes cost and benefits of client program*
*** The program analysed is a mix of NSP (80%) and MMT (20%) coverage*
**** The program analysed looked at improvements in QALYs for HIV+ IDUs receiving MMT*

APPENDIX 3

NEPAL HIV INVESTMENT PLAN 2014-16: OPERATIONAL COMPONENT

Summary of Estimated Budget of NHIP 2014-2016

Interventions	2014	2015	2016
Basic Programme Activities	**28,925,884**	**33,527,079**	**40,711,555**
Female Sex Workers	**3,352,771**	**3,438,883**	**3,533,398**
Street-based FSW	689,138	697,542	714,350
Other FSW	2,156,069	2,183,020	2,209,971
Clients of FSW	507,564	558,321	609,077
People Who Inject Drugs (PWID)	**2,948,852**	**3,913,859**	**5,160,773**
Needle & Syringe Exchange	2,312,435	3,181,923	4,384,169
Oral Substitution Therapy (OST)	636,417	731,936	776,604
Transgender People (TG)	**599,717**	**798,029**	**1,067,350**
Transgender Sex Workers (TG SW)	391,843	548,580	768,012
Other TG	207,874	249,448	299,338
Men who have Sex with Men (MSM)	**3,237,747**	**4,209,072**	**5,892,700**
Male Sex Workers (MSW)	**1,373,207**	**1,510,528**	**1,661,580**
Clients of MSW and TG SW	**100,016**	**144,023**	**144,023**
Male Labour Migrants and their Spouses	**8,117,337**	**9,435,828**	**10,972,271**
Male labour migrants (India)	6,099,533	7,014,463	8,066,633
Spouses of labour migrants	2,017,804	2,421,365	2,905,638
Closed Settings	**116,585**	**112,195**	**117,804**
Uniformed Services	**60,000**	**40,000**	**40,000**
HIV Testing and Counselling (HTC)	**136,528**	**182,876**	**201,246**
Elimination of Vertical Transmission (eVT)	**1,363,316**	**1,498,767**	**1,688,079**
STI Treatment	**390,000**	**507,000**	**659,100**
Treat and Retain	**5,574,217**	**6,690,619**	**7,969,329**
Pre-exposure HIV prophylaxis	**98,649**	**197,298**	**295,947**
TB/HIV	**122,900**	**157,900**	**185,900**

Interventions	2014	2015	2016
Sero-discordant Partners	**18,400**	**36,025**	**57,450**
Hepatitis C Treatment Package	**1,315,641**	**654,179**	**1,064,604**
Critical Enablers	**11,588,677**	**9,771,737**	**10,898,410**
Critical Social Enablers	**746,000**	**784,333**	**779,333**
Policies and Guidelines	145,000	100,000	85,000
Drug Demand Reduction Interventions	521,000	614,333	614,333
Legal and Human Rights Issues	80,000	70,000	80,000
Critical Programme Enablers	**10,842,677**	**8,987,404**	**10,119,077**
Adherence and Other Support through Community-Based Services	1,622,961	1,899,850	2,120,657
Updates of Guidelines & Protocols	20,000	-	-
Training Orientation for Service Providers	465,717	458,577	392,277
Cross-border Initiative	50,000	30,000	50,000
Strategic Information for HIV Programme Results	2,998,691	2,299,784	2,368,360
Medical Equipment	1,630,000	-	-
eHealth and mHealth (through biometric system)	218,750	200,000	318,750
Programme Management Cost	3,836,558	4,099,193	4,869,034
Synergies with Development Sector	**1,687,579**	**1,792,311**	**1,949,403**
In-School and Out-of-School Programmes	384,000	460,800	537,600
Impact Mitigation	482,787	606,011	606,011
Workplace Programme	568,212	502,920	553,212
Addressing GBV and HIV	70,000	40,000	70,000
Integration of HIV Services with Other Health Services	46,000	46,000	46,000
Blood Safety	136,580	136,580	136,580
Total	**42,202,139**	**45,091,127**	**53,559,369**

APPENDIX 3

Detailed costing of NHIP Plan of Action 2014-2016

SCOPE					SCALE			SPEED			Unit Cost USD	Annual Cost			Total
	Description	Total Estimated Population/ Need	Current Status		% Target to be reached in 3 years			Target (#) to be reached in 3 years				Year 1	Year 2	Year 3	
			%	#	2014	2015	2016	2014	2015	2016		2014	2015	2016	
A. Basic Programme Activities												28,925,884	33,527,079	40,711,555	
Reaching out to Key Affected Populations (KAP) with a Comprehensive Prevention Package with Community-operated HIV screening															
A.1 Female Sex Workers (FSW)		**27,175**										**3,352,771**	**3,438,883**	**3,533,398**	**10,325,053**
Street-based FSW	Safer behaviours through information, condoms, services (treatment of sexually transmitted infections (STI), community-operated HIV Testing & Counselling (HTC) twice a year)	6,460	80		82	83	85	5,297	5,362	5,491	130	689,138	697,542	714,350	2,101,031
Other FSW		20,715	80		80	81	82	16,572	16,779	16,987	130	2,156,069	2,183,020	2,209,971	6,549,061
Clients of FSW	Safer behaviours through information, commodities and services (treatment of STI and referral to HTC)	756,909	9	69,610	10	11	12	75,691	83,260	90,829	7	507,564	558,321	609,077	1,674,962
A.2 People Who Inject Drugs (PWID)		**51,190**										**2,948,852**	**3,913,859**	**5,160,773**	**12,023,484**
A.2.1 Needle Syringe Exchange & OST Programme												**2,312,435**	**3,181,923**	**4,384,169**	**9,878,527**
Males Who Inject Drugs (PWID-M)	Safer injecting behaviour through Information, commodities (needles & syringes) and services (treatment of STI, and community-operated HTC twice a year)	39,974													
Needle & Syringe Exchange Programme			34	13,660	40	56	79	16,047	22,466	31,453	128	2,052,126	2,872,977	4,022,167	8,947,270
Females Who Inject Drugs (PWID-F)		**2,537**													-
Needle & Syringe Exchange Programme			55	1,396	61	70	80	1,536	1,766	2,031	128	196,370	225,825	259,699	681,894
Package for FSW who inject drugs (PWID-FSW)		1,000	NA	NA	50	65	80	500	650	800	128	63,939	83,121	102,303	249,363
Oral Substitution Therapy (OST)		**7,679**	**6**	**462**	**15**	**20**	**20**	**1,152**	**1,536**	**1,536**	**132**	**152,555**	**203,407**	**203,407**	**559,370**
OST Site Cost								**9**	**9**	**9**	**38,873**	**349,860**	**349,860**	**349,860**	**1,049,580**
Buprenorphine Programme								**600**	**800**	**1,000**	**223**	**134,002**	**178,669**	**223,336**	**536,007**
A.2.2 Hepatitis C Diagnosis and Treatment Package												**1,315,641**	**654,179**	**1,064,604**	**3,034,424**

SCOPE					SCALE			SPEED			Unit Cost USD	Annual Cost			Total
	Description	Total Estimated Population/ Need	Current Status		% Target to be reached in 3 years			Target (#) to be reached in 3 years				Year 1	Year 2	Year 3	
			%	#	2014	2015	2016	2014	2015	2016		2014	2015	2016	
Genotyping equipment for diagnosis of hepatitis C								1			150,000	150,000	-	-	150,000
Hepatitis C competency programmes								1	1	1	15,000	15,000	15,000	15,000	45,000
Prevention activities for Hep C															
Government and community engagement on viral hepatitis								1	1	1	5,000	5,000	5,000	5,000	15,000
Demand generation activities for Hep B and Hep C testing								1	1	1	5,000	5,000	5,000	5,000	15,000
Community meetings to educate on Hep C, including prevention and treatment messages								1	1	1	5,000	5,000	5,000	5,000	15,000
Screening															
Routine screening of people who use drugs for HCV antibodies and HBsAG (Hepatitis B)		51,190													
Screening at all DICs, OST sites, NSEP sites, rehab centres and HTC sites		25,595	-	-				12,798	12,798	12,798	3.5	44,791	44,791	44,791	134,374
Diagnosis															
Setting up the lab infrastructure for Hep C diagnosis								1			150,000	150,000	-	-	150,000
Procurement of RNA PCR machine with a package of machine maintenance and competence								1			110,000	110,000	-	-	110,000
Treatment															
Hepatitis C medication (pegINF and RBV)		1,536	NA	NA	10	25	50	154	230	384	5,000	467,850	575,888	959,813	2,003,550
Side effects management															
Training															
Hep C treatment literacy to improve health seeking behaviour								1		1	10,000	10,000	-	10,000	20,000
Training of 25 doctors on hepatitis C treatment	Training by international experts from India.							1		1	10,000	10,000	-	10,000	20,000
Training of 25 lab personnel on hepatitis C diagnosis and treatment	Training by international experts from India.							1		1	10,000	10,000	-	10,000	20,000
Drug Advocacy															

APPENDIX 3

SCOPE					SCALE			SPEED			Unit Cost USD	Annual Cost			Total
	Description	Total Estimated Population/ Need	Current Status		% Target to be reached in 3 years			Target (#) to be reached in 3 years				Year 1	Year 2	Year 3	
			%	#	2014	2015	2016	2014	2015	2016		2014	2015	2016	
Hep C treatment study	Includes a 100 patients, their treatment and lab, monitoring and investigator							100			3,000	300,000	-	-	300,000
IL28B study								100			80	8,000	-	-	8,000
Advocacy for cost-effective treatment in the Nepalese context								1			20,000	20,000	-	-	20,000
Guidelines and protocols								1			5,000	5,000	-	-	5,000
IBBS on Hep C and Hep B among PWID									1		3,500	-	3,500	-	3,500
A.3 Transgender people (TG)		**9,474**	**29**	**2,794**								**599,717**	**798,029**	**1,067,350**	**2,465,096**
Transgender Sex Workers (TG SW)	Safer behaviour through information, commodities and services (HTC and treatment of STI)	5,684	29		38	54	75	2,179	3,051	4,271	180	391,843	548,580	768,012	1,708,436
Other TG		3,789	29		35	42	51	1,341	1,609	1,931	155	207,874	249,448	299,338	756,660
A.4 Men who have Sex with Men (MSM)		**196,270**	**16**	**30,824**	**19**	**24**	**34**	**36,989**	**48,085**	**67,320**	**88**	**3,237,747**	**4,209,072**	**5,892,700**	**13,339,520**
A.5 Male Sex Workers (MSW)		**12,639**	**64**	**8,054**	**70**	**77**	**85**	**8,859**	**9,745**	**10,720**	**155**	**1,373,207**	**1,510,528**	**1,661,580**	**4,545,315**
A.6 Clients of MSW and TG SW		**42,143**	**NA**	**NA**	**35**	**42**	**51**	**14,915**	**17,898**	**21,477**	**7**	**100,016**	**144,023**	**144,023**	**388,061**
A.7 Male Labour Migrants and their families												**8,117,337**	**9,435,828**	**10,972,271**	**28,525,436**
Male labour migrants (going to India)	Safer behaviour through information, commodities services (HTC and treatment of STI)	505,728	36	180,548	41	47	54	207,630	238,775	274,591	29	6,099,533	7,014,463	8,066,633	21,180,630
Spouses of labour migrants		252,864	47	119,455	54	65	78	68,687	82,424	98,909	29	2,017,804	2,421,365	2,905,638	7,344,807
A.8 Closed settings												**116,585**	**112,195**	**117,804**	**346,584**
Prison Inmates	Safer behaviour through information, commodities (condoms and personal lubricants) and services (treatment of STI and referral to HTC)	14,000	18	2,500	19	20	21	2,660	2,800	2,940	40	106,585	112,195	117,804	336,584
Develop a manual to ensure the health rights of people who are detained, assaulted in prison/ custody								1			10,000	10,000			10,000
A.9 Uniformed Services												**60,000**	**40,000**	**40,000**	**140,000**
Uniformed services included in HIV Counselling and Testing	Cost included in HIV Testing and Counselling														

SCOPE					SCALE			SPEED			Unit Cost USD	Annual Cost			Total
	Description	Total Estimated Population/ Need	Current Status		% Target to be reached in 3 years			Target (#) to be reached in 3 years				Year 1	Year 2	Year 3	
			%	#	2014	2015	2016	2014	2015	2016		2014	2015	2016	
Update curriculum and strategies for pre- and in-service training and programmes								1			20,000	20,000	-	-	20,000
Educate security personnel on Declaration of Human Rights, Nepal Harm Reduction programme, and the right to health of incarcerated persons								1	1	1	20,000	20,000	20,000	20,000	60,000
Educate security personnel, prison authority and relevant authority to protest the rights of KAP								1	1	1	20,000	20,000	20,000	20,000	60,000
A.10 HIV Testing and Counselling (HTC)												**136,528**	**182,876**	**201,246**	**520,649**
Updating and translation of national HTC Guidelines								1			10,000	10,000	-	-	10,000
Preparation of training guidelines on HTC								1			10,000	10,000	-	-	10,000
Screening of KAP in the public sector	Cost included in A.8, A.12														
Screening of KAP in the private sector	Cost included in A.1-A.7														
Confirmatory HIV testing (in public settings)								14,235	16,520	19,382	3.5	49,824	57,820	67,838	175,481
Partner testing for KAP	Sero-discordant couple service package	8,700			40	60	80	3,480	5,220	6,960	4.8	16,704	25,056	33,408	75,168
National HIV Testing Weeks	Government-led, community-led, and private sector supported testing campaigns							1	1	1	50,000	50,000	100,000	100,000	250,000
A.11 eHealth and mHealth	Installation and use of biometric system in HIV Programme for service tracking, minimizing duplication etc.											**218,750**	**200,000**	**318,750**	**737,500**
Distance Learning on eHealth and mHealth by John Hopkins Bloomberg School of Public Health								25		25	750	18,750	-	18,750	37,500
A.12 Elimination of Vertical Transmission of HIV (eVT)												**1,363,316**	**1,498,767**	**1,688,079**	**4,550,162**
Option B+ for all HIV+ pregnant women	Treating all positive pregnant women with ART irrespective of CD4 count (option B+)			110				682	615	593	476	324,632	292,740	282,268	899,640
eMTCT prophylaxis for infants				130				682	615	593	5	3,410	3,075	2,965	9,450
HIV Testing and Counselling for Antenatal Care (ANC) attendees	HIV screening for all pregnant women attending ANC	505,545		129,000				258,000	300,000	350,000	4	1,032,000	1,200,000	1,400,000	3,632,000
Partner HTC in ANC	Male partners of pregnant women							682	615	593	5	3,274	2,952	2,846	9,072

APPENDIX 3

SCOPE					SCALE			SPEED			Unit Cost USD	Annual Cost			Total
	Description	Total Estimated Population/ Need	Current Status		% Target to be reached in 3 years			Target (#) to be reached in 3 years				Year 1	Year 2	Year 3	
			%	#	2014	2015	2016	2014	2015	2016		2014	2015	2016	
A.13 Treatment of STI				100,000				130,000	169,000	219,700	3	390,000	507,000	659,100	1,556,100
A.14 Treat and Retain												5,574,217	6,690,619	7,969,329	20,234,165
ART need	Provision of ART in line with 2013 World Health Organization Guidelines (ART entry criterion of CD4 500, except for KAP; HIV/TB co-infected; HIV/ Hep C co-infected; all HIV pregnant women; partners in discordant couples)	37,903		7,168											
ART 1st line with management cost, including adherence and patient follow-up				7,168	29	34	40	11,068	13,068	15,068	476	5,268,368	6,220,368	7,172,368	18,661,104
ART 2nd line with management cost, including adherence and patient follow-up				60	2	3	5	221	392	753	749	165,799	293,638	564,297	1,023,733
Paediatric ART need		2,341													
Paediatric ART 1st line with management cost, including adherence and patient follow-up				551	36	43	52	806	967	1,161	156	125,736	150,852	181,116	457,704
Paediatric ART 2nd line with management cost, including adherence and patient follow-up				2	2	3	5	16	29	58	888	14,315	25,761	51,548	91,624
A.15 Pre-exposure HIV prophylaxis (PrEP)	PrEP for the HIV-negative sexual partner in a sero-discordant married, cohabitating, or premarital partnership, with an HIV positive person, who is engaged in sex work; who injects drugs; who is engaged in male-to-male sex; who is HIV/ TB-co-infected; who is HIV/Hep C co-infected; who is pregnant; who is a migrant	10,961			5	10	15	548	1,096	1,644	180	98,649	197,298	295,947	591,894
A.16 TB/HIV												122,900	157,900	185,900	466,700
Isoniazid Preventive Therapy (IPT)	Provision of IPT for PLHIV after excluding active TB infection			1,500				3,000	8,000	12,000	7	21,000	56,000	84,000	161,000
Central-level coordination meeting	4 meetings a year							4	4	4	500	2,000	2,000	2,000	6,000
Coordination meetings in districts that have a District AIDS Coordination Committee (DACC)	50 districts where there is a DACC							50	50	50	1,500	75,000	75,000	75,000	225,000
Infection control training for PLHIV								60	60	60	300	18,000	18,000	18,000	54,000
Integration of TB/HIV in all health settings								23	23	23	333	6,900	6,900	6,900	20,700
A. 17 Support to Sero-discordant Partners		10,961										18,400	36,025	57,450	111,875

SCOPE					SCALE			SPEED			Unit Cost USD	Annual Cost			Total
	Description	Total Estimated Population/ Need	Current Status		% Target to be reached in 3 years			Target (#) to be reached in 3 years				Year 1	Year 2	Year 3	
			%	#	2014	2015	2016	2014	2015	2016		2014	2015	2016	
Interventions for sero-discordant couples, using a Community Test and Treat Competence (TTR) approach	Training of Trainers (# persons to be trained)							50	50	50	213	10,650	10,650	10,650	31,950
	Training of facilitators							50	100	200	155	7,750	15,500	31,000	54,250
	Refresher training								125	200	79		9,875	15,800	25,675
B. Critical Enablers												**7,533,369**	**5,472,544**	**5,710,627**	**18,716,539**
B.1 Social Enablers												**746,000**	**784,333**	**779,333**	**2,309,667**
B.1.1 Policies and Guidelines												**145,000**	**100,000**	**85,000**	**330,000**
Develop and implement non-discrimination policies and practices	Zero tolerance for HIV-related discrimination in Nepal							10	13	13	5,000	50,000	65,000	65,000	180,000
Gender assessment of the HIV response								1			40,000	40,000			40,000
Assessment of HIV budget with gender perspective								1			10,000	10,000			10,000
Incorporate HIV in the National Human Rights framework								1			10,000	10,000	-	-	10,000
Integrate gender violence elimination in HIV programming								1	1		10,000	10,000	10,000	-	20,000
Public-Private HIV Forum	'Sangam' platform for dialogue							1	1	1	10,000	10,000	10,000	10,000	30,000
Legal and policy assessment/ refinement to improve rights of Key Affected Populations	Support for integration of health in prisons, improving rights of KAP											15,000	15,000	10,000	40,000
B.1.2 Drug Demand Reduction Interventions:												**521,000**	**614,333**	**614,333**	**1,749,667**
Development/ update of National Strategy/Guidelines on drug supply and demand reduction					1			1			15,000	15,000			15,000
Education															
Drug prevention programme for children and youth, both in-school and out of school (orientation sessions)								1			500	116,000	116,000	116,000	348,000
Integrating drugs and HIV in school curriculum								1			15,000	15,000			15,000
Detoxification and drug treatment								300	400	400	333	100,000	133,333	133,333	366,667
Rehabilitation								15	20	20	14,000	210,000	280,000	280,000	770,000
Skills development training											200	60,000	80,000	80,000	220,000
Orientation to families								1	1	1	5,000	5,000	5,000	5,000	15,000
Post Rehabilitation Centre															

APPENDIX 3

SCOPE					SCALE			SPEED			Unit Cost USD	Annual Cost			Total
	Description	Total Estimated Population/ Need	Current Status		% Target to be reached in 3 years			Target (#) to be reached in 3 years				Year 1	Year 2	Year 3	
			%	#	2014	2015	2016	2014	2015	2016		2014	2015	2016	
B.1.3 Legal and Human Rights Issues												**80,000**	**70,000**	**80,000**	**230,000**
HIV-related legal services for KAP								1	1	1	20,000	20,000	20,000	20,000	60,000
Law review and reform								1		1	10,000	10,000	-	10,000	20,000
Discrimination reduction								1	1	1	20,000	20,000	20,000	20,000	60,000
Legal literacy								1	1	1	20,000	20,000	20,000	20,000	60,000
Documentation of legal and human rights issues of KAP								1	1	1	10,000	10,000	10,000	10,000	30,000
B.2 Programme Enablers												**6,787,369**	**4,688,211**	**4,931,294**	**16,406,873**
B.2. 1 Adherence and other support through Community-Based Services												**1,622,961**	**1,899,850**	**2,120,657**	**5,643,468**
Community & home-based care services		22,000	39	8,500	41	43	45	9,020	9,460	9,900	80	722,474	757,716	792,959	2,273,149
Community Care Centres (CCC)		60		44				46	48	50	16,693	767,887	801,274	834,660	2,403,821
Viral load testing	By 2016 ART clients are tested at least once for their viral load			1,200				1,200	4,800	7,200	52	62,400	249,600	374,400	686,400
Opportunistic infections (OI) (cases treated)		31,000		6,000				7,800	10,140	13,182	9	70,200	91,260	118,638	280,098
B.2.2 Guidelines and Protocols												**20,000**	**-**	**-**	**20,000**
Updating and translation of HTC Guidelines								1			10,000	10,000			10,000
Preparation of training guidelines on HTC								1			10,000	10,000			10,000
B.2.3 Training												**465,717**	**458,577**	**392,277**	**1,316,570**
HIV Testing and Counselling training for health workers								224	400	400	385	86,240	154,000	154,000	394,240
HTC and STI training for community health workers								216	80	80	385	83,160	30,800	30,800	144,760
District AIDS Coordination Committee (DACC)								50	50	50	350	17,500	17,500	17,500	52,500
DNA PCR equipment operation training for lab staff								20	-	20	550	11,000	-	11,000	22,000
EID/DNA PCR training for lab staff (3 days)								20	-	20	278	5,560	-	5,560	11,120
Training of lab professionals on EID (3 days)								20	-	20	200	4,000	-	4,000	8,000

SCOPE					SCALE			SPEED			Unit Cost USD	Annual Cost			Total
	Description	Total Estimated Population/ Need	Current Status		% Target to be reached in 3 years			Target (#) to be reached in 3 years				Year 1	Year 2	Year 3	
			%	#	2014	2015	2016	2014	2015	2016		2014	2015	2016	
Training on Laboratory Monitoring of ART (5 days)								20	20	20	250	5,000	5,000	5,000	15,000
Training of lab personnel on CD4 (7 days)								20	20	20	574	11,470	11,470	11,470	34,410
Training of lab personnel on viral load testing								20	20	20	250	5,000	5,000	5,000	15,000
CD4 count training								20	20	-	250	5,000	5,000	-	10,000
Quality assurance training								20	20	-	250	5,000	5,000	-	10,000
Training of National Officers at DDA on ADR monitoring (2 weeks)								40	40	-	450	18,000	18,000	-	36,000
TB/HIV training for PLHIV, including infection control measures								20	20	-	384	7,680	7,680	-	15,360
Training of lab personnel on HIV testing and STI (5 days)								40	40	-	250	10,000	10,000	-	20,000
Training on STI CM for General Practitioners								40	40	20	270	10,800	10,800	5,400	27,000
Training for health workers on etiological management of STI up to PHCC level								80	80	80	270	21,600	21,600	21,600	64,800
Training for Health worker on UP, PEP and WP								80	80	80	170	13,600	13,600	13,600	40,800
Training of Trainers (ToT) on clinical management								20	-	-	420	8,400	-	-	8,400
Training on the management of side effects of ART								60	60	-	250	15,000	15,000	-	30,000
Training on HIV treatment literacy and adherence, including TB/HIV								20	20	20	215	4,300	4,300	4,300	12,900
ToT on management of common OI and OI prophylaxis								20	20	20	393	7,860	7,860	7,860	23,580
Training on common OI management and prophylaxis for service providers (for ART, VCT, STI, OI sites)								100	100	100	245	24,500	24,500	24,500	73,500
Training on drug forecasting								-	20	-	421	-	8,420	-	8,420
ToT on diagnosis and treatment of viral hepatitis								20	-	-	500	10,000	-	-	10,000
Training on diagnosis and treatment of viral hepatitis								-	20	-	400	-	8,000	-	8,000
Training on CABA								40	40	-	109	4,360	4,360	-	8,720

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SCOPE					SCALE			SPEED			Unit Cost USD	Annual Cost			Total
	Description	Total Estimated Population/ Need	Current Status		% Target to be reached in 3 years			Target (#) to be reached in 3 years				Year 1	Year 2	Year 3	
			%	#	2014	2015	2016	2014	2015	2016		2014	2015	2016	
Training for counsellors on psychosocial counselling								20	20	20	214	4,270	4,270	4,270	12,810
Annual National and Regional Programme Review Meetings	The 5 Regional HIV Forums will meet annually, in each development region, for reviewing, learning, sharing, and enhancing the HIV response in Nepal, and to establish 'The burden of disease'							5	5	5	8,283	41,417	41,417	41,417	124,250
Participation in ICAAP and other regional and international AIDS conferences								5	5	5	5,000	25,000	25,000	25,000	75,000
B.2.4 Cross-border initiative												**50,000**	**30,000**	**50,000**	**130,000**
Inter-country dialogue on safe migration and HIV	Dialoague between Government of Nepal and India including IOM, UNAIDS, UNDP, WHO on sage migration and HIV							1	1	1	10,000	10,000	10,000	10,000	30,000
Linkage of PLHIV with treatment centres at destination															-
Inter-country dialogue for linkages of NGOs for continuum of prevention, care, treatment and support											20,000	20,000		20,000	40,000
Engaging Nepali migrants in India through community competence for prevention and treatment of HIV											20,000	20,000	20,000	20,000	60,000
B. 2.5 Strategic Information for HIV programme results												**2,998,691**	**2,299,784**	**2,368,360**	**7,666,835**
Organisational structures with M&E functions												566,976	643,674	686,041	1,896,691
Human capacity												492,850	280,655	56,173	829,678
ART partnerships and coordination												32,700	33,000	33,200	98,900
National multi-sector M&E plan/ resources												52,000	-	58,800	110,800
Annual costed M&E work plan												7,260	7,986	8,785	24,031
M&E advocacy, communication												18,710	30,496	21,971	71,177
Routine HIV programme monitoring												525,960	495,058	558,582	1,579,600
Surveys and surveillance												848,770	414,016	463,737	1,726,523

SCOPE					SCALE			SPEED			Unit Cost USD	Annual Cost			Total
	Description	Total Estimated Population/ Need	Current Status		% Target to be reached in 3 years			Target (#) to be reached in 3 years				Year 1	Year 2	Year 3	
			%	#	2014	2015	2016	2014	2015	2016		2014	2015	2016	
National and sub-national HIV databases												48,000	98,000	48,000	194,000
Supportive supervision and data auditing												56,285	60,326	61,621	178,232
HIV evaluation and research												268,000	167,500	286,000	721,500
Data dissemination and use												81,180	69,073	85,450	235,703
B.2.6 Medical Equipment												**1,630,000**	**-**	**-**	**1,630,000**
Liver Function Test Chemistry Analyser								40			3,500	140,000			140,000
Viral load machine								5	-	-	200,000	1,000,000	-	-	1,000,000
Refurbishment of labs								4	-	-	100,000	400,000	-	-	400,000
Genotyping equipment for diagnosis of hepatitis C											90,000	90,000			90,000
C. Synergies with Development Sector												**1,687,579**	**1,792,311**	**1,949,403**	**5,429,294**
C.1 In-School and Out-of-School Programme												**384,000**	**460,800**	**537,600**	**1,382,400**
HIV prevention for in-school youth	HIV addressed within broader sexual health curriculum from grade 6 onwards	No need for costing, funded by Ministry of Education		NA	NA	NA	NA	NA	NA	NA	NA				-
HIV prevention for out-of-school youth (10-24 yrs.) among migrants		96,000		NA	50	60	70	48,000	57,600	67,200	8	384,000	460,800	537,600	1,382,400
C.2 Impact Mitigation												**482,787**	**606,011**	**606,011**	**1,694,810**
Support for Children Affected by HIV and AIDS (CABA)	Provision of allowances to CABA	27,000						1,500	1,500	1,500	120	180,000	180,000	180,000	540,000
Nutritional support to PLHIV on ART								6,056	7,228	8,520	50	302,787	426,011	426,011	1,154,810
C.3 Workplace Programme												**568,212**	**502,920**	**553,212**	**1,624,344**
Update Workplace Policy								1			15,000	15,000	-	-	15,000
Workplace programme focusing on factory workers								30,000	33,000	36,300	15	553,212	502,920	553,212	1,609,344
C.4 Addressing GBV and HIV												**70,000**	**40,000**	**70,000**	**180,000**
Collect and analyse epidemiological data on prevalence of GBV, HIV and other STI, mapping of existing services								1		1	30,000	30,000	-	30,000	60,000
Inter sector programme on gender based violence in key ministries (Justice, Health, Education and Social Services)	Coordination cost							1	1	1	10,000	10,000	10,000	10,000	30,000

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SCOPE					SCALE			SPEED			Unit Cost USD	Annual Cost			Total
	Description	Total Estimated Population/ Need	Current Status		% Target to be reached in 3 years			Target (#) to be reached in 3 years				Year 1	Year 2	Year 3	
			%	#	2014	2015	2016	2014	2015	2016		2014	2015	2016	
Provision of post-rape care and PEP	Already budgeted											-	-	-	-
Comprehensive sexuality education and integration of violence prevention and counselling into HIV prevention/ risk reduction counselling								1	1	1	20,000	20,000	20,000	20,000	60,000
Empowerment of women and girls (education and economic empowerment)												-	-	-	
Training on rights-based sexual and reproductive health and HIV services (PWID-F, PLHIV, FSW, TG SW networks)								1	1	1	10,000	10,000	10,000	10,000	30,000
C.5 Integration of HIV Services with other health services												**46,000**	**46,000**	**46,000**	**138,000**
Integration of TB/HIV in all health settings	Coordination cost							1	1	1	1,000	1,000	1,000	1,000	3,000
Scale-up of local coordination for effective HIV response (VACC, MACC) in coordination with local bodies								50	50	50	500	25,000	25,000	25,000	75,000
Coordination with key line ministries in harmonizing country response to HIV	Coordination cost							1	1	1	10,000	10,000	10,000	10,000	30,000
Coordination within Ministry of Health including NHEICC, FHD, Logistics Management and HMIS	Coordination cost							1	1	1	10,000	10,000	10,000	10,000	30,000
C.6 Ensuring Blood Safety	**Support to NRCS Blood Bank for mandatory screening**	**136,580**	**100**	**136,580**	**1**	**1**	**1**	**136,580**	**136,580**	**136,580**	**1**	**136,580**	**136,580**	**136,580**	**409,740**
Programme Management Cost (10%)												**3,836,558**	**4,099,193**	**4,869,034**	**12,804,785**
Grand Total												**42,202,139**	**45,091,127**	**53,559,369**	**140,852,635**

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