CARIBBEAN INDICATORS AND MEASUREMENT TOOLS (CIMT) for Monitoring and Evaluating National AIDS Programmes

Second Edition

Prepared under the Project:
STRENGTHENING THE INSTITUTIONAL RESPONSE TO HIV/AIDS/STIs IN THE CARIBBEAN

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**Preface**

The Caribbean Health Research Council (CHRC) was established exactly 50 years ago. It was first known as the Standing Advisory Committee (SAC) for Medical Research in the British Caribbean then the Commonwealth Caribbean Medical Research Council (CCMRC). From its inception the CHRC has had the mandate to communicate and share research output and thereby promote evidence-based decision making. Other important functions of the CHRC have been to build a health research culture in the Region and to advise Ministries of Health on matters related to health research. Consequently, we have always had to be responsive to the health needs of the Caribbean people. In the context of the high HIV/AIDS infection rates and the realization of the tremendous influence on the lives of the peoples of the Caribbean, the CHRC has had a critical role in working with countries as they develop and implement strategies to control the epidemic. Our contribution includes the funding of operational research, the dissemination of key research findings and the conduct and promotion of monitoring and evaluation (M&E) of National AIDS Programmes (NAP). The latter is of particular significance since the CHRC is now recognised as the lead regional health institution in the area of M&E.

Early in 2003, the CHRC produced the first edition of the Caribbean Indicators and Measurement Tools (CIMT) for monitoring and evaluating National AIDS Programmes to facilitate the assessment of the NAPs (in eight countries). This was accomplished with support from the project entitled ‘Strengthening the Institutional Response to HIV/AIDS/STIs in the Caribbean (SIRHASC)’. The project was co-ordinated by the Caribbean Community Secretariat (CARICOM) and funded by the European Union. The CIMT was the first M&E guide that was produced specifically for a Region and it was designed to be relevant to the needs of the NAPs and peoples of the Caribbean taking into consideration the size of the countries, the stage of development of their economies and NAPs as well as the culture of the Region. From its publication and subsequent dissemination, the CIMT has played an important role in the promotion of the M&E culture that the CHRC is building as well as in serving as an invaluable guide for countries as they review their NAPs to ensure continued relevance and success.

Two years after it was first published we have completed the revision of the CIMT. The guide has been completely restructured. We now focus on a set of core indicators, which we advise all Caribbean countries to collect. The UNGASS and Millennium Development Goals (MDGs) indicators are included in this core. There is also a supplemental list of indicators available on CD-ROM from which countries can select additional indicators, as needed. Greater emphasis has been placed on impact indicators in this edition of the CIMT. Some of the previously used indicators had to be revised and new indicators identified for programme areas such as Care and Support, Stigma and Discrimination and Prevention of Mother to Child Transmission (PMTCT). We expect that the use of the revised CIMT would result in a more efficient and streamlined approach to monitoring and evaluation of NAPs in the Caribbean.
The decision to revise the CIMT was fuelled primarily by two developments. The first was that the multi-sectoral response to the epidemic is in constant evolution with new programmes being implemented in various Caribbean countries. We have to keep pace with these changes. The other reason for the revision of the CIMT was the need to harmonize the indicators promoted by various agencies to monitor and evaluate the progress/impact of NAPs in the Caribbean. Institutions such as the United Nations Joint Program in AIDS (UNAIDS), the Global Fund to Fight AIDS, Tuberculosis and Malaria and the World Bank have been directing countries to collect data for indicators that were not always consistent with those published in the first edition of the CIMT. This has been a source of great confusion and frustration for officials in countries, especially since in most cases their M&E resources are very limited. To address this problem, a Monitoring and Evaluation Technical Working Group (TWG) was formed chaired by the CHRC and including representatives from the Caribbean Epidemiology Centre (CAREC), the Caribbean Coalition of National AIDS Programme Coordinators (CCNAPC), the Centers for Disease Control and Prevention / Global AIDS Programme (CDC/GAP), UNAIDS, USAID and the University of the West Indies (UWI). The revised CIMT is one of the first products of this collaboration and the indicators represent a harmonisation of indicators requested by the various agencies. Another critical activity that the TWG is about to complete is the development of a Strategic Framework for M&E in the Caribbean. This will include the establishment of national M&E systems.

Although the CHRC has spearheaded the development and subsequent revision of the CIMT, it is important to acknowledge the other institutions that have made sterling contributions. We recognize the technical support provided by agencies represented on the TWG as well as international consultants. Also, this undertaking would not have been a success without the critical input of persons who participated in the workshops at which the various drafts of the CIMT were reviewed. They included representatives from the Ministries of Health, the NAP, Persons Living with HIV/AIDS, NGOs and other stakeholders from Anguilla, Bahamas, Barbados, Dominican Republic, Guyana, Jamaica, St. Christopher and Nevis and Trinidad and Tobago. We are also grateful for the funds provided through the SIRHASC project that were used to support the majority of activities surrounding the development and revision of the CIMT and the subsequent translation into Spanish, French and Dutch.

Finally, I acknowledge Dr. Ansari Ameen, Ms Elizabeth Lloyd and the other members of staff of the CHRC for their tireless work and dedication.

Donald T. Simeon, Ph.D
Director of Research
May 2005
INTRODUCTION

The Caribbean Indicators and Measurement Tools (CIMT) for the monitoring and evaluating of National AIDS Programmes was developed as an easy-to-use guide for Monitoring and Evaluation (M&E) professionals, officials of National AIDS Programmes (NAP) and other persons involved in the management of the response to the HIV/AIDS epidemic in the Caribbean. Fundamentally, it comprises a core set of indicators as well as supplemental ones incorporating current global standards in M&E.

The document is divided into five sections:

1. The first provides an overview of the HIV/AIDS situation in the Caribbean, including information on the regional response to the epidemic and recent international and regional developments that are of relevance to NAPs.

2. The second addresses the issue of monitoring and evaluation of programmes, with an emphasis on NAPs. It includes a brief overview of the theoretical basis of M&E as well as the practical steps involved in the development and implementation of M&E systems and work plans.

3. ‘Core’ indicators that represent those most likely to be relevant and feasible for use by NAPs in the Caribbean are identified in the third section. These include programme level as well as outcome and impact indicators.

4. The fourth section focuses on the evaluation of specific programme areas.

5. Section five comprises detailed definitions for each of the indicators included in this guide.

In addition, a list of methodological guides for the implementation of M&E plans and strategies is provided in the Appendix. Most of the recommended data collection instruments are available electronically and we have included these on the accompanying CD.
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<td>ARV</td>
<td>Anti-retroviral</td>
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<td>ART</td>
<td>Anti-retroviral therapy</td>
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<td>BSS</td>
<td>Behavioural Surveillance Surveys</td>
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<td>CAREC</td>
<td>Caribbean Epidemiology Centre</td>
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<td>CARICOM</td>
<td>The Caribbean Community</td>
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<td>CDC</td>
<td>Centers for Disease Control and Prevention</td>
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<td>CHRC</td>
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<td>CIMT</td>
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<td>C&amp;S</td>
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<td>C&amp;T</td>
<td>Counselling and Testing</td>
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<td>EU</td>
<td>European Union</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GFATM</td>
<td>The Global Fund to fight AIDS, Tuberculosis, and Malaria</td>
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<td>HIS</td>
<td>Health Information System</td>
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<td>LCR</td>
<td>Ligase Chain Reaction</td>
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<td>MDG</td>
<td>Millennium Development Goals</td>
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<td>NAP</td>
<td>National AIDS Programme</td>
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<td>OI</td>
<td>Opportunistic Infections</td>
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<td>OVC</td>
<td>Orphans and Vulnerable Children</td>
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<td>PCR</td>
<td>Polymerase Chain Reaction</td>
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<td>PLWHA</td>
<td>Person living with HIV/AIDS</td>
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<td>PMTCT</td>
<td>Prevention of Mother-to-Child Transmission</td>
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<td>UN</td>
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<td>USAID</td>
<td>United States Agency for International Development</td>
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<td>UWI</td>
<td>University of the West Indies</td>
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<td>WHO</td>
<td>World Health Organization</td>
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HIV/AIDS in the Caribbean
THE EPIDEMIC

The first case of AIDS in the English-speaking Caribbean was identified in 1982 in Jamaica and by the end of 1998 it was estimated that the cumulative total number of AIDS cases was 12,686 in CAREC member countries. By the end of 2003 the adult (15-49 years) HIV prevalence in the Caribbean region was estimated to be 410,000, or roughly 2.3% of the total population. Indeed, the Region has the highest incidence of reported AIDS cases in the Americas. Worldwide, it is second only to Sub-Saharan Africa in terms of adult HIV prevalence rate. Furthermore, these rates are underestimates since under-reporting is common. It is believed that there could be half a million cases of HIV/AIDS in the Caribbean. Case fatality has been consistently high reflecting the low emphasis on treatment of AIDS and its complications. In many countries AIDS is the leading cause of death in the 20 – 40 year old population.

The predominant mode of HIV transmission is sexual. There has been a dramatic and consistent increase of HIV/AIDS among women and the Caribbean now has one of the highest incidences of female AIDS cases in the Western Hemisphere. The male to female ratio was 2:1 in the English speaking Caribbean in 1996. By the end of 2002 the male to female ratio in the Caribbean was 1:1. In some countries such as Trinidad & Tobago the male to female ratio in the 10 – 19 age group is now as high as 1:7. Mother- to- child transmission (MTCT) of HIV occurs in about 25 – 30% of births in HIV positive mothers. However, Caribbean countries are now instituting interventions in pregnancy and labour to reduce MTCT. Studies have revealed that some of the main factors affecting the rapid spread of the disease in the Caribbean are early initiation of sexual activity, multiple sex partners, inconsistent condom use, social and cultural norms that condone multiple sexual partners, social taboos preventing sex education or discussion among young people, denial and/or social stigmatization of same sex and bisexual relations, and commercial sex work.

The total cost of the epidemic in the Caribbean is projected to reach US$80 million in the year 2020. In the year 2000 the total cost of the AIDS epidemic was close to 6% of the Region’s GDP. Also, conservative estimates have predicted that by 2010 more than half the deaths in the under 5 population would be due to AIDS and there would be a decrease in population level by 8% by 2020 affecting a significant percent of the working and child bearing population. (University of the West Indies, Economic Impact Studies, 2004.)

The Response
The countries of the Region, under the guidance of WHO’s Global Programme on AIDS, established National Programmes on AIDS (NPA) and developed short and medium term plans. However, the response has not been optimally effective. One deficiency has been identified as the absence of sustained political will. Very few countries have developed national policies that address human rights and legal and ethical frameworks for HIV/AIDS. However opportunities exist in the Caribbean for concerted regional action by regional institutions such as CAREC, CARICOM, CHRC, UNAIDS, and UWI. There are also increasing...
numbers of HIV/AIDS-specific Non-governmental Organisations (NGO), Faith Based Organisations (FBO) and Community Based Organisations (CBO) involved in the response to the epidemic.

In response to the HIV/AIDS epidemic in the region, the Caribbean HIV/AIDS Task Force under the chairmanship of CARICOM was established and has developed a Caribbean Regional Strategic Plan for HIV/AIDS. This included the development of a well-coordinated regional strategic plan and programme of work that specifies priorities, programmatic opportunities and resource needs as well as a coordination mechanism that involves a number of agencies.

The broad goals and objectives of the Caribbean Regional Strategic Plan have focused on the reduction of the spread and impact of HIV/AIDS and on strengthening an effective and coordinated regional response to the epidemic. It has been reported that for programmes addressing HIV/AIDS, effective synergies are obtained when agencies having similar mandates and different expertise pool their efforts.

### REGIONAL AND INTERNATIONAL RESPONSE

**UNGASS**

At the 26th Special Session of the United National General Assembly (UNGASS) to review the problem of HIV/AIDS in all its aspects, a draft resolution was passed which stated that at the national level,

*By 2003, integrate HIV/AIDS prevention, care, treatment and support and impact mitigation priorities into the mainstream of development planning, including in poverty eradication strategies, national budget allocations and sectoral development plans.*

[Draft Resolution submitted by the President of the United Nations General Assembly, Declaration of Commitment on HIV/AIDS, June, 2001]

The CARICOM Caucus brought together country delegations from the Pan Caribbean Region who were attending the UNGASS meeting. The Caucus recognized the need to increase the information and communication flow on the Caribbean experience, understanding that the region has to become proactive in the battle against HIV/AIDS. They agreed that increased information and communication must seek to address developmental issues, including human resources, and should be a part of all national and regional negotiations.

The Caucus recognized the need for countries to have national strategic plans, multi-sectoral in approach to include government, the private sector and communities, with proper costing of all the components. Capacity building was seen to be critical to the region and needs to be undertaken at both the national and regional levels. This is needed to implement the new expanded response to the HIV/AIDS epidemic.

**The Nassau Declaration**

At the conclusion of the Twenty-Second Meeting of the Conference of Heads of Government of the Caribbean Community (CARICOM), the chairman urged members to rise to meet and confront the
challenges facing the region, particularly HIV/AIDS and to implement the decisions to which it had voluntarily subscribed but had not implemented. The Heads of Government noted with grave concern the escalating prevalence of the dreaded HIV/AIDS pandemic in the region. They stressed, in particular, its devastating effects among young adults in their more productive years and its potential to seriously compromise the economic growth of the region.

Heads of government pledged their support for the work of the Pan Caribbean Partnership. They resolved to support capacity building programmes at national levels and to pool resources and share national experiences in the areas of prevention and care, advocacy, research and resource mobilization. They resolved to pursue joint efforts to negotiate affordable prices for anti-retroviral drugs and for a programme of education for all. They reiterated their support for the declaration arising from the United Nations Special Session on HIV/AIDS (June 2001) and agreed to adopt a consolidated approach to maximize benefits to the region from the proposed UN Global HIV/AIDS Health Fund.

Conscious of the need to confront the pandemic within the context of a more comprehensive Caribbean Health Initiative, Heads of Government further agreed to issue the Nassau Declaration on Health 2001: “The Health of the Region is the Wealth of the Region” and they recognized that the escalation of our health problems is evidence of the deficiencies in our approaches. The solution requires the re-orientation and restructuring of the health services. They stressed the need to place emphasis on access to services for vulnerable groups in our societies, behaviour change in youth and the empowerment of women.

Heads of government were convinced of the need to strengthen the regional and national structures and institutions through which our approach must be articulated, elaborated and discharged. They indicated their commitment to providing the requisite resources within their capabilities consonant with the goals of the Caribbean Community to promote the improvement, well-being and security of our peoples, recognizing that the health of the region is the wealth of the region. Heads of government stressed the need for governments who had not already done so to develop national strategic plans to combat HIV/AIDS.

The Three Ones
The ‘Three Ones’ is an internationally agreed principle for guiding collaborative support to national HIV/AIDS programmes. It consists of agreement to work within a general commitment to build the following at a national level:

1. One agreed HIV/AIDS Action Framework that provides the basis for coordinating the work of all partners;
2. One national AIDS coordinating Authority, with broad based multi-sector mandate;
3. One agreed country level monitoring and evaluation (M&E) system.

This agreement was reached by a large group of major bi-lateral donors at a high-level meeting in Washington in April 2004. Increasing resources, new partners, expanded interventions, and more complexity around programme design, made it clear that nations needed greater co-ordination.
and control over national level programme design and scale up. It was also evident that multiple source of vertical financing, often resulting in piecemeal actions, were often duplicative and rarely sustainable.

The implications for M&E include the following:
- Development of one national multi-sectoral M&E plan, built into the national strategic plan (NSP) at the design stage, and/or reflecting a previously drafted NSP design, and endorsed by major stakeholders.

The national M&E plan should include:
- A set of standardised indicators to track scale-up of programme areas, and improvements in the programming environment, reflecting country needs and with targets reflecting local capacities;
- A sub-set of indicators allowing for global comparative tracking of UNGASS targets, using the Declaration of Commitment measurement tools and guidelines;
- A budget for implementation based on a detailed M&E operational [action plan] for developing systems to collect, analyze and use data and;
- A data dissemination and use strategy.

**Caribbean Regional Strategic Framework for HIV/AIDS 2002 - 2006**

The Caribbean Regional Strategic Framework for HIV/AIDS was developed by the Caribbean Task Force on HIV/AIDS. The objective of this Regional Framework and the regional plans of action that flow from it, is to support national efforts to prevent and control the HIV epidemic and mitigate its consequences at national and regional levels. Close collaboration among regional level organisations and the national programmes will ensure the successful application of the framework. The overall outcome of the plan will be to lay the foundation for a coordinated regional response and provide guidance for the development and implementation of effective and efficient national AIDS programmes. Incorporating monitoring and evaluation in these programmes is critical to their success.

**World Bank’s Multi-Country HIV/AIDS Prevention and Control Adaptable Programme (MAP) Lending**

Six Caribbean countries have so far drawn from the World Bank’s US$155 Multi-Country HIV/AIDS Prevention and Control (MAP) Adaptable Programme Lending. These countries are Barbados, the Dominican Republic, Grenada, Jamaica, St. Kitts and Nevis, and Trinidad and Tobago. Financing from this project will support Caribbean Governments’ efforts to reduce the morbidity and mortality attributed to HIV/AIDS, increase the quality of life of people living with the disease, and strengthen the countries’ institutional capacity for managing HIV/AIDS prevention, surveillance, and monitoring activities. Countries accessing World Bank funds will be required to report on indicators attached to their loan agreements. These countries’ M&E systems will need to be designed to attend to their World Bank and other (UNGASS, Global Fund, etc.) reporting requirements.
The Global Fund to fight AIDS, TB and Malaria (GFATM)

Increasing numbers of GFATM grants in the Caribbean region have accelerated the need for strengthening national M&E systems, owing to the Fund’s policy of linking financial disbursements to evidence-based programme results. While the GFATM supported framework for M&E has simplified global M&E thinking at the programmatic level (measuring key outputs and outcomes by programme area), national programmes are under pressure to show that targets are being met at the end of each disbursement period. The simplified GFATM reporting framework principally requires countries to report, as relevant, on the following three general types of indicators linked to each specific programme area (or ‘service delivery area’):

- Numbers trained to deliver a service;
- Numbers service delivery points set up and/or supported (could be a health facility offering prevention/care services, or an NGO delivering BCC, for example); and
- Numbers reached/benefiting from the service.

These figures may be reported as part of a national M&E system, tracking increased programme reach to specific target groups. Outcome/behavioral indicators are also of relevance to GFATM grants, but are reported as part of national outcome tracking systems, and over a longer timeframe: baselines for population based survey data are ideally established before the grant starts, or at least by the end of phase one (two years), and repeat surveys carried out sometime during phase 2 (following three years).

Successful GFATM proposals in the Caribbean region currently include NAPs in Cuba, Dominican Republic, Haiti, Jamaica, Belize, Guyana, as well as regional bodies such as OECS Secretariat, CRN+, CARICOM/PANCAP.

Since Global Fund results-based disbursements require countries to set specific targets for reaching more people with the services they need, and then to track progress against these targets, NAPs now need to develop greater skills in setting feasible targets in the first place. Currently available M&E data – if adequate - can help enormously when it comes to setting feasible targets for future scale up.
MONITORING & EVALUATION
WHAT IS MONITORING AND EVALUATION?

Over the past decade, international HIV/AIDS programme managers and donors have increasingly recognized the importance of routine monitoring and evaluation to ensure effective programming. While monitoring and evaluation was often initially perceived to be a specific phase in the ‘lifecycle’ of programmes – typically conducted as a stand-alone activity at the end of the funding period – it has now more properly become recognized as an integral part of all phases of programmes, from planning to management to the redesign or continuation of activities.

In short, monitoring and evaluation has evolved from being seen and funded as a discrete activity, to an on-going element of programme assessment, planning design and implementation. Monitoring and evaluation activities allow country health authorities and their partners to assess the extent to which programmes are being implemented and are achieving their intended objectives and inform new programmes.

Routine monitoring of programmes involves the assessment of the programme’s strategy/design, geographical scope and target population coverage, together with the quality and integrity of implementation. Monitoring data address such basic questions as: “To what extent are planned intervention activities actually implemented? What services are provided, to whom, when, how often, for how long and in what context?” Both input (the basic resources required in terms of manpower, money, material, and time) and output (the immediate products or services provided, such as the number of condoms sold/distributed or number of clients reached by VCT services, and/or staff trained to deliver a service) are key elements of routine monitoring. An understanding of the processes through which intervention activities achieve their objectives can help to explain the outcome of the intervention. Routine monitoring data, however, do not demonstrate whether or not interventions are effective.

Evaluating the effectiveness of AIDS programmes involves addressing questions such as “What changes resulted from the programme’s efforts?” or, more simply, “What difference did the programme make?” Evaluation assesses the overall efficacy of service delivery through more detailed analysis and tracking of outcomes over time (the way in which target populations are benefiting from and using services, and/or changing their behaviours) and, when possible, the ultimate impact on disease transmission, morbidity and mortality rates. Evaluation can link observed outcomes and impacts with the programmatic responses which might have led to these. However, outcome/impact level data can rarely be linked to one specific sub-national project or donor led initiative. Links can be made to collective efforts in key programme areas.
ILLUSTRATIVE HIV/AIDS PROGRAM MANAGEMENT QUESTIONS

The materials presented in this document are aimed at implementation of both program level output monitoring, as well as evaluation at the outcome and impact levels. Table 1 identifies nine key programme areas which make up a comprehensive strategy for addressing HIV/AIDS epidemics. Associated with each of these programme areas are several illustrative questions that a program manager may wish to ask. These questions also serve as the basis for identifying specific process, outcome and impact indicators and which can ultimately measure the success of efforts in that programme area.

Table 1: Illustrative HIV/AIDS Program Management Questions

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<tr>
<th>PROGRAMME AREA</th>
<th>ILLUSTRATIVE QUESTIONS</th>
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| Behaviour Change Communication        | - Do youth and adults know how to prevent HIV infection?  
- Which are the most vulnerable population groups, or sexual networks, and what are the key determinants to changing risky behaviors in these contexts?  
- Are condoms available in high risk settings and are they being used during higher risk sex?  
- How many peer educators have been trained?  
- How many targeted population groups are being reached by BCC campaigns? |
| Condom promotion                      | - Are condoms widely available?  
- Are procurement systems functioning?  
- How many condoms are being sold/distributed. To whom? |
| Counselling and testing                | - Are counselling and testing services available? If not, how many more service delivery sites are required? How many health professionals need to be trained?  
- How many people have received an HIV test?  
- What proportion of tested individuals receive the results of their test? |
| PMTCT                                 | - What proportion of pregnant women are provided with HIV counselling and testing prior to delivery?  
- Are anti-retrovirals available to HIV+ pregnant women?  
- How many HIV+ pregnant women use PMTCT services? |
| Blood safety                          | - Is the blood supply adequately screened?  
- Are conditions adequate to prevent accidental transmission in health care settings? |
| Care, support and treatment           | - What is being done in the community to care for HIV positive individuals and their families, including orphans and vulnerable children?  
- Are anti-retroviral drugs available to those who require them?  
- Are drugs for opportunistic infections available to those who need them?  
- Are laboratory services for HIV clinical monitoring available?  
- Is the coverage of services adequate?  
- What are the training needs for scaling up services? |
| Advocacy and Policy                   | - What have been the results of HIV/AIDS advocacy?  
- Is there a national strategy on comprehensive care for HIV?  
- Is there political commitment at the highest level?  
- Are there comprehensive HIV/AIDS prevention and care policies, strategies, and guidelines?  
- Is resource allocation adequate? |
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<th>PROGRAMME AREA</th>
<th>ILLUSTRATIVE QUESTIONS</th>
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<td>Human rights, stigma, and discrimination</td>
<td>- Do programs exist to promote acceptance and support for PLWHA and their families?</td>
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<td></td>
<td>- Are people experiencing AIDS-related discrimination?</td>
</tr>
<tr>
<td>Socio-economic impact</td>
<td>- What are the key socio-economic factors driving the epidemic?</td>
</tr>
<tr>
<td></td>
<td>- What are the key cost drivers in meeting the needs for treatment and care?</td>
</tr>
<tr>
<td></td>
<td>- What is the estimated impact on key macroeconomic indicators?</td>
</tr>
<tr>
<td></td>
<td>- What is the estimated impact of HIV/AIDS on individuals and household units?</td>
</tr>
<tr>
<td></td>
<td>- What is the impact on the quality of life?</td>
</tr>
</tbody>
</table>

**Levels of Monitoring and Evaluation**

There are four generally agreed-upon conceptual levels in M&E planning. These include:

1. Programme activities and processes which lead to …
2. Distinct outputs (products and services delivered), which lead to …
3. Outcomes (consisting of changes in actions and behaviours) which in turn…
4. Should logically result in impact (reduced disease morbidity and/or mortality).

Programme activities are the interventions implemented by the program implementers to improve the health of individuals. In the field of HIV/AIDS programme activities may include counselling and testing, behaviour change and community outreach, anti-retroviral treatment, and care for orphans and vulnerable children. Programme activities are expected to deliver specific and measurable program outputs.

Programme outputs are the products and services resulting from the programme activities. The outputs of counselling and testing activities are counselling sessions conducted, blood samples tested, and test results delivered to clients. Programme outputs are expected to lead to changes in the behaviour of those individuals who receive programme outputs.

Programme outcomes are the changes in the actions and behaviours of target beneficiaries who use or interact with programme outputs. Outcomes of counselling and testing may include changes in the behaviour of those counselled to reduce high-risk behaviours. Outcomes also include changes in behaviours of key intermediaries who can influence how target populations benefit from services delivered. This includes changes in service provider behaviours, policy behaviours, stigmatizing behaviours health seeking behaviours, and risk behaviours.

Programme impacts are changes in disease morbidity and mortality in the target population. In the field of HIV/AIDS the impact of programme activities can be reductions in the incidence and prevalence of HIV/AIDS, reductions in AIDS mortality rates, and lower rates of transmission of HIV from mothers to infants.
**Programme Levels and Appropriate Indicators**

Activity and output level indicators answer the question ‘what is being done, at what quality, and how much and by when?’ Process indicators can be used at the activity and output levels of monitoring to assess the programme’s content, scope or coverage, together with the quality and integrity of implementation. Process indicators help programme implementers to answer the question ‘how is something progressing, or how will a program produce its services and products?’ Both input, (the basic resources required in terms of personnel, money, materials, and time) and output (the immediate service provided such as distributed commodities and trained staff) are key elements of process evaluation. For example, the numbers of workshops [activity] to train numbers of personnel to deliver a service [output] are parts of the process required ultimately to reach numbers people with a service [also output] and in turn influence their health seeking and/or risk behaviours [outcome]. An understanding of the processes through which intervention activities achieve their objectives can help to explain the outcome of the intervention. Process evaluation, however, does not demonstrate whether or not interventions are effective

Outcome level indicators will answer the question ‘how is the target population interacting with collective [multiple] programme outputs, and what overall changes in their actions and behaviours have thus come about?’ Impact level indicators aim to address longer-term outcomes which reflect sustained shifts in individual, societal, or organizational norms, and which directly reflect long term programme goals. Sustained changes which reflect changes in social norms (such as median age at first sex), HIV incidence, the sustainability of local organizations working in HIV/AIDS, and the acceptance and non-discrimination of PLWHA reflect programme impacts.

To justify use of funds, donors are often interested in receiving reports at the level of programme outputs, and for longer term grants, will want to know that a country is tracking outcomes [a result of multiple donor and programme efforts] over a period of 3-5 years.
**Methodological Approaches to Programme Monitoring and Evaluation**

Evaluation specialists can design program evaluations to answer the questions outlined above by using many different approaches and methodologies. Qualitative, quantitative and rapid appraisal methods can be used in varying combinations to arrive at an overall assessment. Designing an evaluation of a complex, multifaceted HIV/AIDS intervention is an art. There is no single standard that can be identified as a best practice for all programs. The design must be specific to the national strategic plan and the context within which the programme is implemented: it must provide data useful to programme managers, implementers, donors, policy makers, and other stakeholders.

**Selecting Indicators for Programme Monitoring and Evaluation**

Indicators measure change over time at the four key levels of a programme strategy: activities carried out; resulting outputs; behavioural outcomes and disease impact.

Tracking trends over time through routine monitoring and evaluation efforts will help programme managers and decision-makers to assess programme success. Most indicators are not designed to explain why a situation has or has not changed but to simply measure trends over time. A plan for collecting and analysing data should be developed and focus on linking indicators that are collected at the various levels of the health care system. Monitoring HIV/AIDS programs involves tracking program-level outputs as well as outcomes and impacts.

Indicators should be expressed in terms of quantity, quality, population and time. For example, an indicator written for the program objective of “increasing condom use” should include the following specific information: “50% increase (quantity) in condom use at last risky sex (quality) among male youth (population) by January 2005 (time).” Because HIV/AIDS prevention and care programming is a new and rapidly changing field, many evaluation indicators are also new and are still in the process of being defined, field tested, and refined. The current globally recommended indicators for comprehensive HIV/AIDS programs are shown in Table 4. All population based data should be reported by specific age cohort, target populations, and sex for each proposed indicator.
There are many globally recommended indicators at all levels of programme M&E however, most programmes should include relevant core indicators at the higher levels, such as those included in the UNGASS declaration of commitment. Standardized output indicators are also useful for key programme areas (e.g. globally recommended output indicators for VCT, PMTCT, ART etc.). These indicators often refer to nationally or internationally agreed minimum standards for quality assurance.

### Exhibit I: Indicator Criteria

- **Simple clear and understandable.** The indicator should be immediately understood as a measurement – what is being measured by when?
- **Useful.** The indicator should result in data which are needed.
- **Valid.** The indicator should actually measure what it is intended to measure.
- **Specific.** The indicator should be as specific as possible. The more general it is, the less valid.
- **Reliable.** Conclusions based on any given indicator should be the same regardless of whom, when, and under what conditions the data were collected.
- **Replicable.** The indicator should be functional in all relevant programme sites.
- **Relevant.** The indicator should give rise to data which is relevant, e.g. that is the most relevant timeframe, or quality measurement, in terms of the management decisions to be taken.

### Data Collection Methods

Different indicators, at different M&E levels, implemented on different scales (national, sub-national…) will require different data collection methods and frequency. Methods include:

- Data compilation from programme reports
- Record abstraction
- Interviews with key informants
- Review of national documents
- Health facility surveys
- HMIS records
- Population-based and target group surveys
- Special studies
- Modelling/estimation
- Surveillance

Programme activity level indicators are generally measured using data collected through quantitative methods such as checklists and routine programme records. The information collected about programme activities can be used to ensure quality assurance, compliance with programme design, and programme consistency across programme sites.

Programme outputs, like programme activities, generally are measured using quantitative data collection methods such as routine program records and client records. These can be supplemented with interviews with clients and service providers to examine client satisfaction and provider performance. Special studies and operations research complement both record
reviews and interviews to provide in-depth information for programme planning. One example of a special study is a record review of people receiving antiretroviral drugs to assess the extent to which prescribed regimens of antiretroviral combination therapy adhere to internationally accepted protocols and guidelines. The information collected about programme outputs can be used to improve programme quality, access, and consistency.

Outcome level indicators of behaviour change are often measured using data collected through population based surveys, which can be highly stratified, or targeted. A survey of young people exposed to a behaviour change communication campaign can reveal the proportion who report changing their behaviour to reduce their risk of HIV infection as a result of the campaign. The information gained from the evaluation of programme outcomes can be used to improve programme outputs.

**DESIGNING A MONITORING AND EVALUATION SYSTEM**

Collecting data for both monitoring and evaluation requires collaboration at all levels and the cooperation of national and international partners. Ideally, the nationally designated monitoring and evaluation unit should oversee ongoing monitoring activities, with reports to the national level annually or at another frequency agreed upon. These monitoring and evaluation activities require funding of specific data collection, processing, analysis, and interpretation as well as the personnel (either staff or consultants) needed to fulfil these duties.

Impact level indicators are measured generally using quantitative data collection methods such as population-based surveys, censuses, health information system records of morbidity and mortality, and special studies. Statistics about hospital admissions for HIV/AIDS and opportunistic infections, as well as mortality records will inform programme implementers about the impact that programmes have had on HIV/AIDS related morbidity and mortality. Surveillance of pregnant women or other target populations annually or bi-annually provides a way to monitor the spread of the HIV and ultimately, to assess the impact of prevention programs on HIV transmission. Information about programme level impacts can be used to redesign programmes, to scale up practices with beneficial impacts, and to eliminate programmes that fail to demonstrate successful impacts.
The coordination of the national response to the epidemic generally rests with the National AIDS Programs. Ideally, a monitoring and evaluation unit exists either within the National AIDS Program or the Ministry of Health. While the size and scope of the monitoring and evaluation system coordinated by the unit will depend on both the state of the epidemic and on the program scope and resources, a well-functioning system will share a number of common elements.

### Exhibit 2: Checklist of features of a good M&E system

**M&E UNIT**
- An established M&E unit within the Ministry of Health or other relevant Ministry/organisation
- A budget for M&E that is about 10 percent of the national HIV/AIDS/STI budget
- A significant national contribution to the national M&E budget
- A formalized (M&E) link with the research institutions
- A formalized (M&E) link with leading NGOs and donors
- Epidemiological expertise in the M&E unit or affiliated with the unit
- Behavioural/social science expertise in the M&E unit or affiliated with the unit
- Data processing and statistical expertise in the M&E unit or affiliated with the unit
- Data dissemination expertise in the M&E unit or affiliated with the unit

**CLEAR GOALS**
- Well-defined national programme goals and targets
- Regular reviews/evaluations of the progress of the implementation of the national programme plans
- Guidelines and guidance to districts and regions for M&E
- Guidelines for incorporating M&E into all sectors
- Co-ordination of national and donor M&E needs

**INDICATORS**
- A set of priority indicators and additional indicators at different levels of M&E
- Indicators that are comparable over time
- A number of key indicators that are comparable with other countries

**DATA COLLECTION & ANALYSIS**
- An overall national level data collection and analysis plan
- A plan to collect data and analyze indicators at different levels of M&E
- Second generation surveillance, where behavioural data are linked to HIV/STI surveillance data

**DATA DISSEMINATION**
- An overall national level data dissemination plan
- A well-disseminated informative annual report of the M&E unit
- Annual meetings to disseminate and discuss M&E and research findings with policy-makers
- A clearinghouse for generation and dissemination of findings
- A centralized database or library of all HIV/AIDS/STI-related data collection activities (incl. ongoing)
- Co-ordination of national and donor M&E dissemination needs

MONITORING AND EVALUATION PLANS

Monitoring and evaluation plans frequently represent a compromise between the needs of different audiences and the realities of time, money, and available expertise. Often, the process of defining those needs and considering the various other factors leads to the establishment of a core set of indicators, with the understanding that the core set will need to be complemented with additional indicators as appropriate to the specific setting. Supplemental indicators for various programme areas are included in the Appendix to the CIMT available on the CD. A good example of additional information that is not covered by this recommended set of core indicators is the quality of services provided.

THE SCOPE OF THE PLAN

The design of a monitoring and evaluation system is closely tied to developing a national HIV/AIDS monitoring and evaluation plan. A sample outline for a monitoring and evaluation plan is presented in Exhibit 3. It is not possible to monitor or evaluate progress towards national goals unless the overall programme goals are clear. Thus, the first step in developing a monitoring and evaluation plan is to understand the program goals and interventions. Programme goals will indicate the intervention areas in which progress might be expected, and therefore areas in which it might be measured.

DATA COLLECTION METHODS AND SYSTEMS

The second component of a comprehensive plan is identifying the data collection methods and systems that will be used to monitor and evaluate progress. It is useful to look at existing systems that are currently in place to monitor program efforts and then build upon these. When selecting indicators, it is essential to select a manageable number of key indicators so as not to overburden the system. Choose key indicators that represent the most important components of the expected result. If these indicators fail to show progress, examine data for ‘supporting’ indicators. For example, a program whose goal is to increase use of PMTCT services will be interested in measuring indicators related to PMTCT awareness (do pregnant women know where they can get services), availability (how many sites offer the minimum package of services?), and accessibility (are there economic, social, or cultural barriers to care?).

National HIV/AIDS coordinators oversee many programs, only one of which is PMTCT. While PMTCT program managers will want to use a large number of indicators to track program implementation (from inputs to outputs to outcomes), the National HIV/AIDS program may only wish to use a few indicators to track program PMTCT availability, use, and impact.
Data collection systems and sources should be identified that will provide the data for the selected indicators. In general, the cost and difficulty of data collection increases as indicators shift from inputs to outputs to impact. It should be possible to collect data for input and output indicators centrally from regular reporting systems, while data for many outcome and impact indicators are generally be collected through surveys or other special studies. As data from routine reporting systems provide a way to track program implementation, these indicators should be collected and reviewed frequently to ensure that programs are being implemented as planned. On the other hand, surveys and special studies require additional resources, and because many of the indicators at this level are not expected to change greatly from year to year, these data collection methods may only be conducted every two to three years. Table 2 presents the timeline for an illustrative national data collection system.

Once indicators have been chosen and a timeline for data collection has been identified, an important next step is the development of the methodological approach. For each behavioural survey, facility survey, or a key informant interview, an appropriate tool must be identified and an approach designed to identify individuals or facilities for inclusion in the survey. For nearly all of the key indicators highlighted in this document, there exists a recommended measurement tool and methodological guidance included in the attached CD.

However, in most cases, this tool must be adapted to the specific environment of the country and the context of the program that it will measure. While adaptation is needed to ensure that the tools are appropriate for the specific program, care should be taken to ensure that they will still produce indicators that are consistent with either international or regional standards such as the UNGASS indicators and those included in the CIMT.
The process of adapting tools to local settings and of defining the sample plan under which the survey will be conducted is an opportunity to establish broad support and collaboration with various stakeholders in the monitoring and evaluation process.

### Table 2. Illustrative National Level Data Collection System

<table>
<thead>
<tr>
<th>Data Source</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>YEAR1</td>
</tr>
<tr>
<td>Behavioural survey</td>
<td>Youth</td>
</tr>
<tr>
<td>Female Sex Worker</td>
<td></td>
</tr>
<tr>
<td>Adults</td>
<td></td>
</tr>
<tr>
<td>Health Facility Survey</td>
<td>-</td>
</tr>
<tr>
<td>Surveillance</td>
<td>X</td>
</tr>
<tr>
<td>Program Level Monitoring</td>
<td>X</td>
</tr>
</tbody>
</table>

### Implementation Plan

The implementation plan is an important component of any monitoring and evaluation plan. For all indicators to be reported at the national level, the individuals and institutions responsible for collecting and reporting the information should be clearly identified. For program level data, indicators must be standardized across programs, data reporting forms must be developed, and the data flow from programs to the national level must be clearly described to ensure completeness of reporting as well as to minimize duplicate counting across partners. For non-routine data collection activities, such as facility or population surveys, stakeholder involvement in the planning process is critical to ensure that data needs of various partners are met and that funding for these activities is secured.

### Data Demand and Use

There is no point in collecting information if it will not be used to plan and improve programs, advocate for action, or attribute change to interventions and thus generate additional resources. A clear plan for data use should be developed that stipulates who will use the data and how the data will be presented to them. This may include developing a database of information and plans for sharing data between programs, researchers, regional organizations, donor agencies, and others.
CORE INDICATORS

A core set of recommended indicators has been identified after careful review of recently developed global indicator guides and reporting standards. This collaborative review process was undertaken with the critical input of representatives from the Ministries of Health, National AIDS Programmes, persons living with HIV/AIDS and other country representatives. The objective was to develop a more efficient and streamlined approach to monitoring and evaluation of HIV/AIDS efforts in the Caribbean and to come up with a minimum core set of indicators for use throughout the region. The currently recommended core indicators for HIV/AIDS programmes in the Caribbean are presented in Tables 3 and 4.

ROUTINE MONITORING OF PROGRAMME SERVICES

Table 3 shows a framework for monitoring output-level indicators, i.e. the scale-up and delivery of services in key programme areas. Generally speaking, programme scale up can be tracked with the following general types of indicators:

1. Numbers trained to deliver a service
2. Number of service delivery points/outlets set up or supported
3. Number of people reached, or clients served.

These data are often collected from the NGOs and/or the public or private health delivery sites implementing the services, such as through routine facility-based health information systems (HIS). Not all these general indicators are wholly relevant to every programme area. Table 3 shows which output indicators are most useful for each programme area.
Table 3: CORE PROGRAM-LEVEL INDICATOR MATRIX

<table>
<thead>
<tr>
<th>Programme/Service Delivery Area</th>
<th>Number of people trained (by provider type)</th>
<th>Number of service delivery points/outlets supported</th>
<th>Number of clients or people reached (by age and sex)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevention</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behaviour Change /Community Outreach</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Blood safety</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>STI Management</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>PMTCT</td>
<td></td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>C&amp;T within PMTCT</td>
<td></td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>ARV prophylaxis within PMTCT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condom Distribution</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Counseling and Testing</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Care, Support, and Treatment (ART)*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ART/PMTCT+</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Clinic-based Care for PLWHA (including OIs)</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Home- and Community-based Care</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>OVC Care</td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Stigma and Discrimination Reduction Programs</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Core Outcome- and Impact-level Indicators Summary Table

Table 3 shows the core national outcome and impact indicators that are recommended for the Caribbean countries to measure national-level achievements. Please note that these core national-level outcome and impact indicators are measured with data sources including population-based surveys, surveys that target specific subpopulations, health facility surveys, sentinel surveillance systems or sero-surveys, and cohort analysis of patient records.

This core indicator set is intended to serve as a minimum set of standard indicators. NAPs should invest in and collect those indicators that are relevant to their programmatic goals and objectives. Those indicators relevant to technical areas where a country does not have significant investment may not be necessary depending on available resources, future priorities, and feasibility.

This is not an exhaustive list. National AIDS Programme managers are likely to require more information than what is presented here. The list of resources for programme monitoring indicators and additional indicators has been updated with recently published resources (Accompanying CD).
<table>
<thead>
<tr>
<th>PROGRAM AREA</th>
<th>RECOMMENDED INDICATORS</th>
<th>METHOD</th>
<th>PERIODICITY</th>
<th>INTERNATIONAL STANDARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevention/Behaviour change</td>
<td>Percent 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</td>
<td>Population-based survey</td>
<td>Baseline and then every 2-3 years</td>
<td>UNGASS 2003</td>
</tr>
<tr>
<td></td>
<td>Percent of never-married young people aged 15-24 who never had penetrative sex</td>
<td>Population-based survey</td>
<td>Baseline and then every 2-3 years</td>
<td>WHO YPG 2004</td>
</tr>
<tr>
<td></td>
<td>Proportion of young women aged 15-24 who have had sex in the last 12 months with a partner who is 10 or more years older than themselves</td>
<td>Population-based survey</td>
<td>Baseline and then every 2-3 years</td>
<td>WHO YPG 2004</td>
</tr>
<tr>
<td></td>
<td>Percent of women and men aged 15–49 who had sex with more than one partner in the last 12 months</td>
<td>Population-based survey</td>
<td>Baseline and then every 2-3 years</td>
<td>Adapted from UNAIDS 2000</td>
</tr>
<tr>
<td></td>
<td>Percentage of young people age 15 – 24 reporting the use of condoms during sexual intercourse with a non-regular sexual partner</td>
<td>Population-based survey</td>
<td>Baseline and then every 2–3 years</td>
<td>UNGASS 2003</td>
</tr>
<tr>
<td></td>
<td>Percent of women and men aged 15–49 who say they used a condom the last time they had sex with a non-marital, non-cohabiting partner, of those who have had sex with such a partner in the last 12 months</td>
<td>Population-based survey</td>
<td>Baseline and then every 2-3 years</td>
<td>WHO YPG 2004, UNAIDS 2000, MDG</td>
</tr>
<tr>
<td></td>
<td>Percent of men reporting sex with a sex worker in the last 12 months who used a condom during last paid intercourse</td>
<td>Population-based survey</td>
<td>Baseline and then every 2-3 years</td>
<td>UNAIDS 2000, WHO YPG 2004</td>
</tr>
<tr>
<td></td>
<td>Percent of sex workers who report using a condom with their most recent client, of sex workers surveyed having sex with any clients in the last 12 months</td>
<td>Targeted sample survey</td>
<td>Baseline and then every 2-3 years</td>
<td>UNAIDS 2000, WHO YPG 2004</td>
</tr>
<tr>
<td></td>
<td>Percent of men who used a condom at last sex with a male partner, of those who have had sex with a male partner in the last 6 months</td>
<td>Targeted sample survey</td>
<td>Baseline and then every 2-3 years</td>
<td>UNAIDS 2000, WHO YPG 2004</td>
</tr>
<tr>
<td></td>
<td>Percentage of young people 15-24 who know of at least one formal source of condoms</td>
<td>Population-based or targeted sample survey</td>
<td>Baseline and then every 2-3 years</td>
<td>WHO YPG 2004</td>
</tr>
<tr>
<td></td>
<td>Condoms available for nationwide distribution</td>
<td>Special study</td>
<td>Annual</td>
<td>UNAIDS 2000</td>
</tr>
<tr>
<td></td>
<td>Percent of patients with sexually transmitted infections (STIs) at health care facilities who are appropriately diagnosed, treated and counselled</td>
<td>Special survey</td>
<td>Baseline and then every 2-3 years</td>
<td>UNGASS 2003, GFATM 2004</td>
</tr>
<tr>
<td></td>
<td>Percentage of Intravenous Drug Users (IDU) who have adopted behaviours that reduce transmission of HIV</td>
<td>Special Survey</td>
<td>Biennial</td>
<td>UNGASS 2003</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>----------------</td>
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</tr>
<tr>
<td><strong>Blood safety</strong></td>
<td>Percent of blood units transfused in the last 12 months that have been adequately screened for HIV according to national or regional standards</td>
<td>Special study</td>
<td>Annual</td>
<td>UNAIDS 2000, GFATM 2004</td>
</tr>
<tr>
<td><strong>Prevention impact</strong></td>
<td>Percent of young people aged 15-24 that are HIV infected</td>
<td>Sentinel Surveillance among pregnant women in ANC sites or Survey with biomarkers</td>
<td>Annual</td>
<td>UNGASS 2003, MDG 2003</td>
</tr>
<tr>
<td><strong>Counselling and testing</strong></td>
<td>Percent of the general population aged 15-49 receiving HIV test results in the last 12 months</td>
<td>Program reports/ Modeling or Population-based survey</td>
<td>Annual or Baseline and then every 2-3 years</td>
<td>UNAIDS 2000, WHO C&amp;S 2004</td>
</tr>
<tr>
<td><strong>PMTCT</strong></td>
<td>Percent of all pregnant women attending at least one Antenatal Clinic (ANC) visit who received an HIV test result and post-test counselling</td>
<td>Program reports/ Modeling</td>
<td>Annual</td>
<td>WHO PMTCT 2004</td>
</tr>
<tr>
<td></td>
<td>Percent of HIV-infected pregnant women receiving a complete course of antiretroviral prophylaxis to reduce the risk of mother to child transmission</td>
<td>Program reports/ Modeling</td>
<td>Annual</td>
<td>UNGASS 2003, GFATM 2004, WHO PMTCT 2004</td>
</tr>
<tr>
<td></td>
<td>HIV prevalence among pregnant women ages 15 - 24</td>
<td>Sentinel Surveillance among pregnant women</td>
<td>Annual</td>
<td>MDG 2003</td>
</tr>
<tr>
<td><strong>PMTCT impact</strong></td>
<td>Percent HIV-infected Infants born to HIV-infected Mothers</td>
<td>Program reports/ Modeling</td>
<td>Annual</td>
<td>UNGASS 2003, WHO PMTCT 2004</td>
</tr>
<tr>
<td></td>
<td>Ratio of current school attendance among orphans to that of non-orphans aged 10-14</td>
<td>Survey or program reports</td>
<td>Baseline and then every 2-3 years</td>
<td>UNGASS 2003</td>
</tr>
<tr>
<td>Category</td>
<td>Indicator</td>
<td>Methodology</td>
<td>Frequency</td>
<td>Source(s)</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>------------------------------------------</td>
<td>-----------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td><strong>Care, support, and treatment</strong></td>
<td>Percent of people with advanced HIV infection receiving Anti-Retroviral Treatment (ART)</td>
<td>Program reports/Modeling</td>
<td>Annual</td>
<td>UNGASS 2003, GFATM 2004</td>
</tr>
<tr>
<td></td>
<td>Percent of health care facilities that have the capacity and conditions to provide basic-level HIV testing and HIV/AIDS clinical management</td>
<td>Health facility survey</td>
<td>Baseline and then every 2-3 years</td>
<td>UNAIDS 2000, WHO C&amp;S 2004, GFATM 2004</td>
</tr>
<tr>
<td></td>
<td>Percent of health care facilities that have the capacity and conditions to provide advanced-level HIV/AIDS care and support services, including provision of ART</td>
<td>Health facility survey</td>
<td>Baseline and then every 2-3 years</td>
<td>UNAIDS 2000, WHO C&amp;S 2004, GFATM 2004</td>
</tr>
<tr>
<td></td>
<td>Percent of adults aged 18–59 who were chronically ill for 3 or more months during the past 12 months whose households have received free basic external support in caring for the ill person</td>
<td>Special study</td>
<td>Baseline and then every 2-3 years</td>
<td>WHO C&amp;S 2004</td>
</tr>
<tr>
<td><strong>Orphans and vulnerable children</strong></td>
<td>Percent of orphans and vulnerable children under 18 whose households have received, free of user charges, basic external support in caring for the child</td>
<td>Special study</td>
<td>Baseline and then every 2-3 years</td>
<td>UNAIDS 2000, WHO C&amp;S 2004, GFATM 2004</td>
</tr>
<tr>
<td><strong>Care, support, and treatment impact</strong></td>
<td>Percentage of people living with AIDS still alive at 6, 12, and 24 months after initiation of ART</td>
<td>Program reports/ cohort analysis</td>
<td>Annual</td>
<td>WHO 3 by 5 2004</td>
</tr>
<tr>
<td><strong>Training and Capacity Building</strong></td>
<td>Percentage of schools with teachers who have been trained in life-skills based education and who taught it during the last academic year</td>
<td>School-based survey and education programme review</td>
<td>Biennial</td>
<td>UNGASS 2003</td>
</tr>
<tr>
<td><strong>Policy</strong></td>
<td>AIDS Program Effort Index (API)</td>
<td>Special study</td>
<td>Baseline and then every 2-3 years</td>
<td>UNAIDS 2000</td>
</tr>
<tr>
<td></td>
<td>National Composite Policy Index</td>
<td>Special study</td>
<td>Biennial</td>
<td>UNGASS 2003</td>
</tr>
<tr>
<td></td>
<td>Amount of national funds spent by governments on HIV/AIDS</td>
<td>Survey of financial resource flows</td>
<td>Annual</td>
<td>UNGASS 2003</td>
</tr>
<tr>
<td></td>
<td>Percentage of large enterprises/companies that have HIV/AIDS workplace policies and programmes</td>
<td>Workplace Survey</td>
<td>Biennial</td>
<td>UNGASS 2003</td>
</tr>
</tbody>
</table>
## Section 3: Core Indicators

<table>
<thead>
<tr>
<th>Human rights, stigma, and discrimination</th>
<th>Percent of the general population with accepting attitudes towards those living with HIV/AIDS</th>
<th>Population-based survey</th>
<th>Baseline and then every 2-3 years</th>
<th>UNAIDS 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent of health care facilities that protect against discrimination (e.g., HIV tests with informed consent)</td>
<td>Health facility survey</td>
<td>Baseline and then every 2-3 years</td>
<td>WHO C&amp;S 2004</td>
</tr>
<tr>
<td>Socio-economic impact</td>
<td>Impact of HIV/AIDS on key socio-economic variables.</td>
<td>Institution-based and non-institution based costing studies</td>
<td>As required</td>
<td>HEU, UWI</td>
</tr>
<tr>
<td></td>
<td>Impact of HIV/AIDS/STI on key macroeconomic indicators.</td>
<td>Institution-based and non-institution based costing studies</td>
<td>Annually or consistent with national surveys</td>
<td>HEU, UWI</td>
</tr>
<tr>
<td></td>
<td>Impact of HIV/AIDS on key health outcomes</td>
<td>Institution-based and non-institution based costing studies</td>
<td>Annually or consistent with national surveys</td>
<td>HEU, UWI</td>
</tr>
</tbody>
</table>
Sources for International Standards in Table 3

The following is a list of sources for each of the indicators listed in Table 3. Detailed definitions and discussions of each indicator are provided in section four of this guide. Additional indicators in each of the programme areas can be found Appendix 1.

<table>
<thead>
<tr>
<th>International Standard</th>
<th>Complete Reference</th>
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</table>
Evaluating Specific HIV/AIDS Strategies
### Technical Area: Evaluating Behaviour Change Communication (BCC) Interventions

#### Introduction

Promoting safer sexual behaviour has probably been the most important component of National AIDS Programmes to date, and measuring change in this area is central to the task of evaluating the effectiveness of HIV/AIDS programmes and estimating future directions of the epidemic.

Influencing sexual behaviour is not an easy task, and a range of behavioural changes are possible which reduce target populations’ exposure to HIV infection, including having fewer sexual partners, using condoms, reducing the amount of sexual activity (including delaying sexual behaviour among youth), and ensuring monogamy among regular partners, or negotiating condom use of a non-monogamous partner with other partners. Establishing norms of safe behaviour among young people early on is thought to be easier than changing norms of unsafe behaviour in older people. Because of this emphasis on safe behaviour among young people, it is important that indicator data be reported by specific age cohorts (ideally, male and female youth aged 15-19 and 20-24, in addition to data for male and female adults 25 and older).

Evaluations can be conducted to measure the effectiveness of BCC materials, the training of peer educators, the exposure of target populations to varied channels of BCC messages, as well as changes in levels of knowledge about HIV prevention methods. Impact evaluation – focuses upon changes in target population behaviours as a result of BCC activities.

#### Role in comprehensive assessment

Repeated behavioural measurements provide the most immediate, accessible and interpretable information available on the success of programmes and the likely future direction of the epidemic.

#### Methodological Issues

Indicators of sexual behaviour and condom use are probably the most important of all indicators in monitoring HIV prevention programmes and evaluating their success. More has been done to measure sexual behaviour than was dreamed possible a decade ago, when it was believed that people would never tell the truth about their sex lives. In country after country, it has now been demonstrated that people do answer questions about sex, and that the trends derived from their answers match other forms of evidence such as condom sales and STI prevalence. However, there is still room for improvement. Women, especially, continue to underreport sex outside of marriage in standardized surveys. Qualitative data collection gives rather better results, but is rarely practical on a large scale and does not lend itself to the construction of indicators necessary for monitoring and evaluation.
Technical Area | Evaluating Behaviour Change Communication (BCC) Interventions
---|---
Methodological Issues (cont’d) | Perhaps the trickiest issue in measuring sexual behaviour is how to filter relationships to get an idea of levels of risk involved. This question becomes more vexing as prevalence in the general population rises and the lines between “high-risk” partners such as sex workers and “low-risk” partners such as husbands become blurred. The matter of central interest is not numbers of partners but patterns of sexual networking, and this is all but impossible to analyze with simple indicators. To date, the most common way of dividing relationships into high and low risk has been using a simple measure of time: any (non-marital) relationship that has lasted or is expected to last for more than a year is classified as “regular,” while any other relationship is classified as “non-regular.”

There is a growing feeling that a time-based definition of “non-regular” does not adequately capture the level of risk inherent in the partnership. For example, many men may consider a sex worker they visit frequently to be a “regular partner” under the time-based definition, although she clearly represents higher risk than a faithful wife. It is therefore proposed that relationships be divided on the basis of cohabitation and marriage. Sex with any non-cohabiting, non-marital partner is considered to be higher risk than sex with a cohabiting partner, regardless of the duration of the relationship. This definition has the advantage that it is equally valid for all age groups.

Sexual behaviour data are one of the central pillars of a monitoring and evaluation system. They should be used to inform and explain trends observed in HIV and STI surveillance data as much as possible. With this in mind, sampling for major surveys of sexual behaviour should be carried out in relation to the catchment areas for HIV sentinel sites. Thought must also be given to the frequency of surveys of sexual behaviour. In the absence of a major and radically new programme effort, sexual behaviour is unlikely to change significantly in a single year, or even two, in the general adult population. Among young people, however, new behavioural trends may emerge more rapidly, especially if more programme resources are aimed at establishing safe behaviour in this group.


Key indicators
1. Young People’s knowledge of HIV
2. Young people’s sexual practices
4. Risky sex in the last year.
5. Sex worker and MSM use of condoms
6. Condom availability and access
7. STI diagnosis and treatment
8. IDU reduction of risky behaviour
<table>
<thead>
<tr>
<th>Technical Area</th>
<th>Evaluating Condom Programming</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction</strong></td>
<td>Aside from the issue of condom use (which is addressed as part of evaluating behaviour change in the previous section), two main approaches exist to evaluating condom programming: measuring condom availability (which reflects the supply of condoms at both the national and at the local levels), and measuring condom accessibility (which reflects the various obstacles – including knowledge of sources, socio-cultural, economic, psychological, and logistical barriers – to being able to acquire a condom when needed). Condom availability is a prerequisite of condom use, and a limited, or sporadic, supply of condoms (at either the national or retail level), will undermine BCC efforts to encourage condom use generally, and to achieve the goal of consistent condom use in particular. Condom accessibility is also a precursor to use, and despite the intention to use condoms, and the availability of a sufficient supply of condoms, various obstacles to condom accessibility - such as cost, societal taboo, lack of confidentiality for youth to acquire condoms, or simple ease of acquiring condoms - may prevent condoms from being used widely. Condom accessibility, however, unlike condom availability, is measured through the knowledge and attitudes of target populations.</td>
</tr>
<tr>
<td><strong>Role in comprehensive assessment</strong></td>
<td>Measuring condom availability at the national and local level is a central concern for national HIV/AIDS program managers, and can help to interpret and validate results from general population behavioural surveys. Measuring condom accessibility should be a component of all behavioural surveys and analyzed for specific age cohorts and sub-populations (e.g., income levels, ethnic groups, etc.) to identify both structural obstacles and attitudes preventing the adoption of consistent condom use.</td>
</tr>
<tr>
<td><strong>Methodological Issues</strong></td>
<td>Condom availability ought to be among the easiest areas of programming to track. A condom is either there or it is not – surely that can be measured? Unfortunately, poor information systems, a plethora of sources of condoms and accountability problems conspire against simplicity. Previous attempts to measure condom availability at the peripheral level (such as by WHO/GPA Prevention Indicator 3) have combined retail surveys with survey questions asking people whether they know where they can get condoms. Responses to individual questionnaires may however be poorly correlated with actual distribution patterns. Condom availability at the national level is best determined by interviews with key informants, such as government procurement officers, commercial importers/distributors, other donor agencies, and non-governmental organizations (NGOs). Logistics management information systems can be useful in measuring condom flows to various distribution or wholesale points within the distribution system. They are generally inadequate, however, to measure condom availability or sales at the retail level.</td>
</tr>
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</table>
### Technical Area

**Methodological Issues (cont’d)**

<table>
<thead>
<tr>
<th>Evaluating Condom Programming</th>
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| Availability at the retail level is usually measured through some type of outlet check or audit. Outlet checks generally are used to determine the number of outlets of each type that have condoms of different brands. Retail audits provide information on the number of condoms sold in each outlet over time. Sampling is typically handled in one of two ways. With the more traditional outlets or with outlets that are relatively few in number, the first wave is frequently a census of all outlets, for example, pharmacies or government clinics in a certain region. This can be compared against a list of “official” outlets. Official lists may miss outlets that are not licensed or those that are closed, but may also indicate outlets that have been missed by the census. Samples are then pulled from this census for subsequent tracking waves. At the end of the project, a census is often repeated to see if the total number of outlets has changed. Data from censuses give an indication of the level of condom distribution, by type of outlet.

For less traditional outlets or outlets that are too numerous to be covered on a census basis, sites are selected on the advice of those who know the local situation well. Data on availability are then reported as the number of outlets where condoms were found, divided by the number of sites visited. Regardless of the sampling approach, it is obviously important to identify and sample (in some manner) all the different types of outlets where condoms are likely to be found, including places such as bars, hotels, gas stations, and supermarkets. The biggest expense associated with an outlet check is getting interviewers to the outlets. Once they are there, they can relatively easily check other items of interest to the program as well, such as the availability of literature, condom prices, and waiting time for purchases. Once in the field, interviewers can also readily pick up other pertinent information, such as black market sales, and leakage of public-sector goods into the commercial sector.

Retail audits differ from outlet checks in that the protocol includes measuring sales. This is done by visiting the same set of outlets at regular intervals and collecting information on beginning and ending period inventories as well as intervening deliveries. Sales for the period can then be calculated by adding deliveries to beginning period inventory and subtracting ending period inventory. Some type of retailer training and incentive is usually offered to ensure successful participation in the audit. The principal problem encountered with projecting sales from this approach is that it is difficult to select a representative sample. Sales by outlet vary greatly and this information is not readily available by some proxy measure beforehand. Another approach is to purchase retail-audit data from an established commercial market research firm. For example, IMS HEALTH, a company that collects and sells pharmacy sales data in many countries, has spent considerable time working out sampling schemes for various countries. Condoms, however, are not covered in all IMS country surveys, and commercial data vendors do not typically include sales from less-traditional outlets.

*Source: Evaluating Programs for HIV/AIDS Prevention and Care in Developing Countries (FHI, 2001), p. 73-4.*
<table>
<thead>
<tr>
<th>Technical Area</th>
<th>Evaluating Condom Programming</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key indicators</td>
<td>1. Condoms available for distribution nationwide.</td>
</tr>
<tr>
<td></td>
<td>2. Young people's knowledge of condom availability</td>
</tr>
<tr>
<td></td>
<td>3. Percentage of young person using condoms</td>
</tr>
<tr>
<td></td>
<td>4. Condom use with a non-regular partner.</td>
</tr>
<tr>
<td></td>
<td>5. Condom use among commercial sex workers (male &amp; female)</td>
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</table>
### Technical Area | Evaluating Voluntary Counselling and Testing
---|---
### Introduction | Voluntary counselling and HIV testing (VCT) is becoming an increasingly important area of HIV prevention and care programming. People who have chosen to be counselled and then have gone on to have an HIV test have, in limited studies, registered some behaviour change that should contribute to lower rates of HIV spread. The ready availability of VCT services is also thought to be a factor in reducing stigma surrounding HIV and in encouraging community support and care for those affected. Perhaps most importantly, VCT services are an essential early entry point to social support services and medical and associated care for those infected with HIV, where these services exist.

Many national AIDS programs are trying to increase the availability and quality of counselling and of testing services by supporting the training of counsellors and providing necessary inputs such as test kits. In countries where efforts are being made to reduce transmission of HIV from mother to child, there is a special interest in the counselling and voluntary testing of pregnant women. This area of VCT programming is dealt with in the section on mother to child transmission.

### Role in comprehensive assessment | The measurement of VCT services is of particular importance to those countries with generalized epidemics. However, as anti-retroviral drugs become more available, and as countries with nascent or concentrated epidemics scale up their efforts to include VCT and care components, this area of evaluation will become universally relevant. As this is a new area for many programs, indicators are less well developed than for other components. Indicators to measure VCT are mostly process or output level indicators measuring the availability of VCT services, the quality of services provided, and the number of clients counselled. For programs at the early stage of providing VCT services, as well as those further along, measuring availability and quality of services provided are key.

### Methodological Issues | In counselling – perhaps more than in any other area of service provision – service quality determines the outcome. Poor quality counselling can result in misunderstanding and even resistance to change but measuring quality of counselling is exceptionally difficult. Because confidentiality is a critical element of VCT, observational studies are difficult, though by no means impossible.

Mystery patient studies and exit interviews with clients are possibilities for assessing the quality of counselling; mystery clients in particular could help avoid some inherent problems of observation. For example, providers/counsellors may not provide the same level or type of counselling when being observed as they do in a normal routine. When using mystery clients to assess quality of counselling, mystery clients should undergo training and have ongoing support and feedback.
### Technical Area

#### Methodological Issues (cont'd)

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<thead>
<tr>
<th>Evaluating Voluntary Counselling and Testing</th>
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<tbody>
<tr>
<td>In addition, mystery clients should be used according to the same guidelines used in sexually transmitted infection evaluation, e.g., the clinic is notified and agrees to having mystery clients over a certain defined time period. Finally, observations of the mystery clients should be used for improving counsellor work, but not for punitive measures and this should be stressed to the participating sites, managers and providers.</td>
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</table>

Another difficulty in evaluating progress in the provision of quality VCT is deciding which service providers should be included in an assessment. While an increasing number of countries have special centres dedicated exclusively to counselling and testing for HIV, a high proportion of tests take place in private clinics or doctors’ surgeries. The fact that tests are proposed for diagnostic purposes does not diminish the need for pre- and post-test counselling, confidentiality and other elements of quality service provision.

Measuring the availability of services is far simpler and more direct than measuring the quality of services delivered. At early stages in developing VCT services a simple, straightforward indicator measuring the number of VCT sites is sufficient to assess the availability of VCT. However, as VCT centres are established, this indicator will be of much less use. Likewise, in countries with concentrated epidemics, the availability of VCT centres by district may be less useful than the availability of VCT centres serving specific vulnerable population groups. In both cases, the issue of VCT accessibility becomes the more valuable indicator. Measuring VCT accessibility involves many of the same constraints and cautions as measuring condom accessibility, and methodological lessons learned in measuring condom accessibility can be applied to measuring VCT accessibility.

<table>
<thead>
<tr>
<th>Key indicators</th>
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</thead>
<tbody>
<tr>
<td>1. Percentage of population receiving counselling and test results.</td>
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</table>
### Technical Area

<table>
<thead>
<tr>
<th>Evaluation Area</th>
<th>Evaluating Prevention of Mother to Child Transmission</th>
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<tbody>
<tr>
<td><strong>Introduction</strong></td>
<td>Only recently have interventions to reduce transmission of HIV from mother-to-child been available. Now, as shorter, less complex and cheaper drug regimes are proving effective in reducing transmission, these interventions are becoming more widely available in developing countries. For instance, recent research has shown that a single oral dose of the fairly inexpensive anti-retroviral drug nevirapine given to an HIV-infected woman in labour and another to her baby within three days of birth results in a reduction in the transmission rate similar to that achieved by a short course of AZT. Strategies to reduce mother-to-child transmission generally begin by supporting primary prevention of HIV among women likely to become pregnant. Next in line is reproductive choice. Women considering pregnancy are informed of the implications of childbearing for the HIV-infected and are encouraged to find out their HIV status through voluntary counselling and testing. Those that test positive should be further counseled on the implications of pregnancy and given advice about appropriate contraceptive use. HIV-positive women who become pregnant may have a number of options open to them if they know about their infection. For this reason, routine counselling and voluntary, confidential testing of pregnant women is an essential element in programs designed to reduce transmission from mother to child. Once a pregnant woman knows her status, there are two major (and complementary) prevention strategies open to her. First, she may take anti-retroviral drugs (ARVs) for the last weeks of pregnancy or around delivery. Secondly, she may avoid breastfeeding the child. The second strategy is possible without the first – indeed it is likely to avoid up to half of all vertical transmission. It appears that anti-retroviral treatment followed by breastfeeding may also cut the risk of vertical transmission, at least for women who breastfeed only up to six months. Recent developments in treating mothers just before delivery and both mother and infant just after delivery have had success in reducing HIV transmission even among women exclusively breastfeeding for three months and weaning. As new methods are validated, programs should be prepared to monitor service delivery and availability and evaluate effects. <strong>Source:</strong> National AIDS Programs: A Guide to Monitoring and Evaluation (UNAIDS, 2000).</td>
</tr>
<tr>
<td><strong>Role in comprehensive assessment</strong></td>
<td>Indicators related to the evaluation of maternal to child transmission are of particular relevance to countries with generalized epidemics. The two ‘key indicators’ identified in this section both assume high prevalence of HIV among pregnant women seeking services, because in a low-prevalence setting, the counselling and testing of all women for HIV, or the identification of the percentage of HIV-positive women provided with anti-retroviral therapy, would be either inappropriate or prohibitively expensive to measure.</td>
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<tr>
<td>Technical Area</td>
<td>Evaluating Prevention of Mother to Child Transmission</td>
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<tr>
<td>Role in comprehensive assessment (cont’d)</td>
<td>Countries with concentrated epidemics more often focus efforts on primary prevention of women at high risk for HIV infection. In these settings, program managers may find it more practical to emphasize lower-level indicators related to PMTCT, such as the development of a testing algorithm or the training of health care providers, in preparation for the emergence of a broader epidemic.</td>
</tr>
<tr>
<td>Methodological Issues</td>
<td>Evaluation indicators related to mother-to-child transmission should ideally cover the provision of counselling and voluntary testing services for pregnant women, the availability and affordability of AZT during pregnancy, the provision of advice on infant feeding and the availability and affordability of alternatives to breast milk.</td>
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<td>As with regular VCT services, the quality of counselling services will be an important component in evaluating the provision of prevention strategies to pregnant HIV-positive women. The issues are complex, involving shared confidentiality with a partner, future prevention and fertility decisions and infant feeding decisions. The latter in turn involves consideration of resources and possible exposure to illness (for the infant) and stigma (for the mother).</td>
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<tr>
<td></td>
<td>Confidentiality is an important factor which increases the challenges inherent in developing indicators. For example, the percentage of HIV-infected mothers not breastfeeding might be an important indicator of a successful prevention program for vertical transmission, but collecting data for this indicator is virtually impossible in many settings.</td>
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<td>Impact indicators in this area are extremely difficult to obtain. Unless prohibitively expensive Polymerase Chain Reaction (PCR) or Ligase Chain Reaction (LCR) tests are used, HIV testing at birth (that is, ELISA antibody testing) gives no indication of the infection status of the infant. And in any case, around half of all vertical transmission in developing countries takes place after birth, during breastfeeding. Follow-up would be nearly impossible for routine surveillance systems. In many countries, particularly those with high pre-AIDS mortality in the under-fives and poor vital registration systems, infant and child mortality indicators are not specific enough to register changes in rates of HIV-associated mortality in infants.</td>
</tr>
</tbody>
</table>


| Key indicators                              | 1. Pregnant women counselled and tested for HIV.  |
|                                            | 2. HIV-positive women provided with anti-retroviral therapy in pregnancy.  |
|                                            | 3. HIV prevalence among pregnant women aged 15 – 24. |
Technical Area | Evaluating Blood Safety
---|---
**Introduction** | During the initial years of the AIDS epidemic a major effort was made to reduce the transmission of HIV associated with blood transfusions. These efforts focused on HIV antibody screening, blood donor selection, prevention of avoidable transfusions, blood banking and other measures. These interventions remain vitally important, and renewed emphasis has been placed on ensuring the quality of these interventions, in addition to the prevention of other sources of accidental infection, such as the protection of patients from poor sterilization of medical equipment, and the protection of health service providers through the promotion of universal precautions.

**Role in comprehensive assessment** | The inclusion of one indicator for the evaluation of blood safety efforts is a minimum standard for all countries with national HIV/AIDS programs. Further indicators may be incorporated in settings where blood safety interventions are given particular emphasis.

**Methodological Issues** | There are very few systematic indicators for any aspect of blood safety, from the screening of donors to the quality of existing HIV screening systems. Standardized prevention indicators in the area of blood safety are desperately needed, and need to include measures of donor screening and transfusion rates as well as the screening of blood units. It is worth noting, however, that in very high prevalence epidemics, for example, where more than one adult in five is HIV infected, the utility of donor screening policies is perhaps less useful. Resources may be better used for monitoring the quality of blood screening procedures. Indeed, the higher the population prevalence of HIV, the higher a priority blood safety should be for the national program.

The lack of trained staff and other essential inputs such as reagents and reliable refrigeration are important constraints to maintaining a safe blood supply in many countries. It is safe to assume that these constraints will also apply to the ability to monitor and evaluate blood safety.

The monitoring of blood safety is much easier in countries where all blood for transfusion is collected by a centrally administered national blood transfusion service, or where all blood, regardless of its provenance, is screened in central laboratories. However such services are comparatively rare. Private blood banks are common in many countries, and in many cases, individual hospitals manage their own blood supplies. And many transfusions will take place in private hospitals or clinics, increasing the chances that records of the total number of transfusions may be incomplete. Donor screening and screening of blood units can vary substantially between services. This means that where universal quality control is not possible the sampling frame for facility based monitoring and evaluation will be critical.

<table>
<thead>
<tr>
<th>Technical area</th>
<th>Evaluating Blood Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key indicators</td>
<td>1. Adequate screening of blood units according to national and regional standards.</td>
</tr>
</tbody>
</table>
### Technical Area | Evaluating Care, Support, and Treatment
---|---
**Introduction** | Like prevention, the term “care and support” covers a multitude of different programming areas and services. These include clinical management, nursing and home care, counselling and psychological support for those infected with HIV and their families, and social support for those infected with HIV, their families and communities. Some areas of programming that fall in the ambit of care and support, such as counselling and testing and the reduction of stigma and discrimination, are dealt with in separate parts of this guide.

Although the ideal scenario is a seamless web of care, support and treatment services, basic primary health care was often patchy even before the HIV epidemic, and is now over-stretched where it does exist. Secondary and tertiary level facilities are only available to a small fraction of the population. The HIV epidemic has increased the strain on health systems at all levels. Unable to provide adequate care through the health system, many countries are turning to community-based models of care. The capacity of communities to provide this care is often highly uneven, and not easy to assess.

The identification of core and additional indicators in the area of care and support will vary considerably according to a country’s strategy for providing care and support. At the initial stages of the provision of care, support and treatment activities, basic output indicators of numbers reached may provide the most valuable information on the progress of program activities. Also important will be assessing the level of preparedness of the health sector (in terms of trained staff, etc.). In more advanced epidemics, household surveys can be used to assess the level of coverage (percent of target populations reached) of care and support efforts. In countries that are concentrating on the widespread provision of more sophisticated medical care for those with HIV, more sophisticated facility-based indicators will take precedence.

*Source: Adapted from: National AIDS Programs: A Guide to Monitoring and Evaluation (UNAIDS, 2000).*

**Role in comprehensive assessment** | The development of care, support and treatment programs is a central strategy for all countries addressing HIV/AIDS. However, the number and specific indicators chosen to best reflect the success of different countries programs will vary considerably depending upon the advancement of the epidemic, the specific strategies employed, and the resources available.
### Technical Area: Evaluating Care, Support, and Treatment

#### Methodological Issues

Monitoring of care and support is not easy. In the first place, HIV status is rarely known and can not be asked about in population surveys for M&E purposes, so it is impossible to know how many people with HIV have access to the care and support they need. Health facility based surveys give no idea of coverage, and may give only a limited idea of the extent to which care is given at the “appropriate” (most accessible and cost-effective) level of the health care system.

Even when people are being cared for, the need to protect patient confidentiality stands in the way of any systematic assessment of the quality of care. Direct observation of care provision may be possible for conditions which are commonly associated with, but not exclusive to, HIV. “Exit” type interviews with those living with HIV are only rarely possible, and are hard to generalize. Interviews may, for example, be attempted in the context of an anonymous self-administered questionnaire of people active in support groups for people living with HIV, but this is a selected population that is usually far from typical of all those living with HIV.

Providers of care and support at the community level are often small private organizations reacting to an urgent local need. They have limited capacity to provide services, let alone to collect data and feed it in to a monitoring and evaluation system.


#### Key Indicators

1. Number of individuals (adults and orphans/vulnerable children) with advanced HIV infection receiving ART
2. Health care facilities with the capacity to deliver basic and advanced level care and ART to HIV-infected patients.
## Technical Area  | Evaluating Training and Capacity Building
---|---
**Introduction** | Training and capacity building represent cross-cutting strategies which help national AIDS programs to strengthen the quality, scale and effectiveness of their response to the AIDS epidemic. While training represents a straightforward strategy with clear evaluation approaches, the definition and evaluation methodology associated with capacity building is less well understood.

Four key capacity building approaches can be identified as part of a strategy to enhance individuals, organizations, and institutions to design, implement and manage sustainable HIV/AIDS programs. These are: technical and management skill building, management systems development, resource diversification, and network building. National AIDS programs will be involved in each of these – training individuals of varied backgrounds in a wide range of topics, building institutional capacity for managing programs, and strengthening national networks of stakeholders involved in responding to the HIV/AIDS epidemic.

**Role in comprehensive assessment** | National AIDS programs with a strong focus on building local capacity may be interested in a more extensive evaluation of training and capacity building efforts at all levels (individual, institutional and networks); however all programs should be interested, at a minimum, in evaluating the extent of networking and participation in strategic planning and coordinated response.

**Methodological Issues** | Measuring participation of organizations/institutions is a subjective process and, potentially, a political one as well. Some organizations may express no interest in participating in a process of strategic planning, or in coordinating efforts to respond to the epidemic, while others may feel (rightly or wrongly) isolated or shut out from national level planning and decision making. Despite these obstacles to objectively measuring the strength of local networks and the degree of participation among donors, NGOs, CBOs, community (or target population) representatives and PLWHA, in terms of participation, perception is often identical, in effect, to reality, and therefore valuable to measure.

**Key indicators** | 1. Percentage of schools with teachers who have been trained in life-skills based education and who taught it during the last academic year.
### Technical Area | Evaluating Advocacy and Policy
--- | ---
#### Introduction
In many countries, AIDS program staff and even Ministry of Health staff need no convincing of the importance of efforts to prevent HIV and care for those infected and affected. Their commitment, however, is not always reflected in other parts of government. AIDS program managers often work to increase political commitment at other levels of government – this process is called advocacy. Managers may do advocacy through joint planning exercises, by collecting and presenting data to the head of state or cabinet ministers about the virus and the factors that spread it, by holding educational sessions for legislators, religious leaders, business people and others who may influence policy-makers at the top levels of government. National program managers are often supported in these efforts by external agencies which believe that strong political commitment is critical to successful AIDS programming.

One of the goals of external agencies and program managers is to convince senior policy-makers to recognize and understand the nature and magnitude of the problem, and then – where merited – to put the problem firmly on the national agenda. That means committing funds and other resources to responding to the epidemic. It means turning the rhetoric of multi-sectoralism into a reality. It means breaking the silence surrounding the epidemic, drawing the attention of citizens to the contribution they can make to curb the epidemic and its consequences.

More political commitment to dealing with HIV leads inevitably to a stronger national response and funds allocated to addressing the epidemic and care in several ways. A stronger national response also means there will be more activity to monitor and evaluate. Recording changes in political commitment may act as a reality check for other M&E efforts – if commitment is low and showing no signs of rising, it may be optimistic to expect a massive impact from the rest of the national response.

*Source: Adapted from National AIDS Programs: A Guide to Monitoring and Evaluation (UNAIDS, 2000).*

#### Role in comprehensive assessment
National AIDS program managers often face resistance in including the evaluation of national policies within a comprehensive HIV/AIDS program evaluation. Policy makers often instruct program managers to focus evaluation on other program areas and wish to avoid the potential for criticism which may emerge from an evaluation which could hold them accountable for failing to address policy obstacles or provide adequate resources. While this type of evaluation may be politically difficult to negotiate, it is unquestionably an important component of any comprehensive evaluation and provides essential information which can be useful in interpreting the magnitude of success of other indicators.
**Technical Area** | **Evaluating Advocacy and Policy**
--- | ---
Role in comprehensive assessment (cont’d) | An alternative to using a measure of the overall policy environment, in countries where a specific policy objective is the emphasis of program effort is to choose a narrowly defined policy indicator.

**Methodological Issues** | The best measure of advocacy will be increased political commitment and the successful implementation of more favourable policies. The greatest difficulty with measuring political commitment is finding any objective measure. Most measures tend to include some subjectivity – that means they are of limited use for intercountry comparisons but, much more importantly, can be difficult to interpret in measuring trends over time.

Many policy measures are of the yes/no variety: does a stated policy exist in a given area, does joint planning exist? These may be helpful in pointing out gaps where advocacy or policy development work is most needed, but they are not very helpful in tracking incremental changes in the policy “climate” over time. It is also difficult to discern from yes/no indicators what the quality of the policies is. A national strategic plan may exist, and it may be based on a broad consultation of interested groups. Its contribution to the national response depends not on its existence, however, but on the extent to which it is implemented. That is much harder to measure, and can certainly not be captured in a yes/no indicator. It may, however, be reflected in national accounts: within a strategic plan, program elements that are backed up by a line item in a ministerial budget are more likely to be implemented than elements that are not financed.

Following the logic that governments put their money where their real interests are, budget allocations can provide a useful indicator of changes in political commitment over time. However, funding-based indicators are not always useful for inter-country comparisons, since funding for AIDS programs comes from various sources, both inside and outside the government.

A straightforward measure such as the proportion of the regular health budget allocated to AIDS may overlook the fact that a government knows it can more easily get donor funding for AIDS than for other health issues, and allocates its own budget accordingly. This dynamic may affect another potential indicator of political commitment: the proportion of all spending on AIDS that comes from the national coffers.

While a dramatic rise in domestic funding for HIV almost certainly reflects an increase in political commitment, the reverse is not necessarily true, since an increase in political commitment could equally be reflected in an aggressive search for outside funding for HIV-related activities. In addition, an increased funding level from either outside the national program or from within does not automatically translate to a better response – how the funding is put to work is also important.
Precisely because of the political sensitivity of HIV and AIDS and the relative weakness of many AIDS programs within the government structure, it may be more difficult for program staff to calculate policy indicators than indicators in other areas of programming such as STI care or sexual behaviour. This is the area of M&E most likely to require outside evaluation, though clearly such an evaluation should be conducted together with the national program.


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<td>1.</td>
<td>AIDS Program Effort Index</td>
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<td>2.</td>
<td>National Composite Policy Index</td>
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<td>3.</td>
<td>Amount of national funds spent on HIV/AIDS</td>
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## Technical Area

### Evaluating Human Rights Protection, Stigma, and Discrimination

#### Introduction

Pervasive stigma has surrounded HIV/AIDS since the beginning of the pandemic. The destructiveness of this stigma, and the resulting discrimination and abuse of individuals’ basic human rights, have undermined interventions to combat the epidemic at a local, national and even global level. Stigma fuels the epidemic by making it difficult for individuals to access information and adopt preventive behaviours. It also adversely affects people’s ability and willingness to access care and support. Twenty years into the struggle to combat HIV/AIDS, stigma and discrimination remain key obstacles to the success of ongoing prevention, care and support interventions.

Stigma can be defined a number of ways, but is commonly understood to be a powerful and discrediting social label that radically changes the way individuals view themselves and the way others view that individual as a person. Stigmatization is a dynamic, social process which allows stigma to be institutionalized as discrimination and is commonly manifested in the form of laws, policies, and administrative procedures. These discriminatory acts are often justified as necessary to protect the “general population.” Examples of stigmatizing and discriminatory measures include compulsory screening and testing, compulsory notification of AIDS cases, restrictions of the right to anonymity, prohibition of PLWHA from certain occupations, and medical examination, isolation, detention and compulsory treatment of infected persons.

#### Role in comprehensive assessment

Evaluating the success of national program efforts to protect human rights and reduce stigma and discrimination is an important part of comprehensive efforts to address HIV, recognizing that in order for HIV/AIDS programs to be successful they must be multi-sectoral and address AIDS not as a uniquely public health problem, but as a societal and developmental one. Therefore measuring human rights protection, stigma, and discrimination is an important part of an overall evaluation program.

#### Methodological Issues

Stigma and discrimination, but especially the former is among the most difficult aspects of the epidemic to quantify. It is perhaps for this reason that many prevention and care programs have the reduction of stigma and the fostering of more supportive attitudes as a stated objective, but virtually none has developed a reliable way of measuring this most intangible of phenomena.
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<td>Interventions designed to reduce discriminatory attitudes may have a more rapid or profound effect on reported attitudes than on the embedded attitudes that drive an individual’s behaviour. Decades of human rights campaigning in the United States have, for instance, greatly reduced the proportion of people who openly admit to being racially prejudiced. Whether this change in stated attitudes is reflected in a similarly large reduction in active discrimination in practice is open to doubt.</td>
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To complicate matters still further, active discrimination is sometimes difficult to discern. It can take highly visible forms, such as being fired from a job. But it can also be noticed in the failure to provide services available to other members of society or even the absence of compassion and supportive advice from church or community leaders.

It is difficult to collect information about behaviour toward those infected with HIV. Partly because of stigma itself, the HIV status of people who are in fact infected is rarely openly acknowledged, even within their own families. Therefore, most questions that attempt to measure stigma focus on hypothetical situations, such as the willingness to care for a relative with AIDS or beliefs about whether people with HIV should be permitted to continue working with others. It is not clear to what extent hypothetical willingness to care for a sick family member is matched in practice, or indeed, to what extent it is a useful indicator of social stigma. Other hypothetical questions, such as a willingness to be tested for HIV, have been shown to be poor predictors of actual behaviour, possibly because of the magnitude of social stigma. However, for lack of better predictors, hypothetical questions about a person’s attitude are likely to remain central to attempts to track changes in negative attitudes toward people with HIV.

Studies in several countries suggest that the stigma attached to being infected with HIV vary for men and women. Respondents of both sexes are far more likely to express stigmatizing or disapproving attitudes toward women living with HIV than toward men. To capture this difference, questions (whether or not they are hypothetical) should be asked and analyzed separately about situations relating to infected women and to infected men.
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<td>Measures of discrimination have tended to be of the yes/no variety, for instance, “Does legislation exist to protect against discrimination?” In some measures, there is also an attempt to judge whether or not the legislation is enforced. This may be useful in identifying important gaps and areas for program effort. It is of limited use, however, in the regular monitoring and evaluation of national AIDS programs. Composite indicators of these yes/no questions are almost impossible to interpret. A gain in passing legislation in one area may be counteracted by a backsliding in enforcement in another. It is noted that the AIDS Program Effort Index (API), a composite index designed to monitor political commitment and program effort in the areas of HIV prevention and AIDS care, will partly measure the extent to which the legal system protects the human rights of HIV-infected persons. Components of the API include human rights and the legal and regulatory environment.</td>
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<th>Key indicators</th>
<th>1. Accepting attitudes towards those living with HIV – composite indicator.</th>
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<td>2. Percent of health care facilities that protect against discrimination (e.g., HIV tests with informed consent, persons living with HIV/AIDS not segregated, etc.).</td>
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Evaluating Socio-Economic Impact

Introduction

HIV/AIDS socio-economic impact assessments have been used as a tool to describe how the epidemic is likely to affect a country, its economy and its people. Impact assessments have been used for the purposes of: 1) academic research, 2) policy development, and 3) program planning, but rarely for the evaluation of national AIDS programs. This introduction will present a brief history of the methodological approach and history of socio-economic impact assessment, and then discuss the potential role for these studies in a comprehensive evaluation framework.

The first socioeconomic research conducted on the potential impact of AIDS portrayed widespread, grave, consequences and bleak outlooks. These initial assessments tended to focus on the cost of treating people with AIDS (PWAs) and the lost productivity of infected workers. Like early demographic impact studies, many initial treatment cost studies overstated costs and consequently, the likely impact of the epidemic.

As the errors in these analyses became apparent, economists began to focus less on the costs of treating patients and increasingly on the lost productivity of those infected, (that is, on conducting indirect cost analyses). Economists originally assumed that indirect cost assessments (measuring the value of lost productivity attributable to HIV/AIDS using the human capital approach) would be a powerful tool in the process of convincing policymakers of the impact of HIV/AIDS. Since PWAs were often in the prime of their lives, it was argued that illness and death would result in substantial costs in terms of the loss of productive years and associated income. These “indirect cost analyses” utilized the human capital approach, valuing human life based on the amount an individual is expected to earn over their lifetime. These studies showed that HIV/AIDS would have a powerful impact on the earnings potential of PWAs. Studies in Tanzania, Zaire, Puerto Rico and Honduras indicated that lost productivity represented between 78 and 99% of all HIV/AIDS-related costs.

One problem with this approach is that while indirect costs represent the loss to the family, they cannot be aggregated to accurately represent the cost to society. In other words, an individual might lose many years of productive life as a result of AIDS-related morbidity and mortality, but businesses (and the national economy) cannot be assumed to permanently lose those years of productivity. Instead, businesses are likely to cope by quickly replacing the ill employees. Particularly where unemployment rates are high and skills required by employers is low, this turnover of employees is likely to occur immediately and at a minimal cost to the companies.

Once again, the quality of the tools used in performing socioeconomic impact assessment brought into question the value of even performing such studies. Therefore, trends in the field shifted from focusing on indirect cost analyses to macroeconomic assessments that expanded their focus to national economies. Initially these macroeconomic studies involved an aggregation of microeconomic costs (i.e., multiplying the projected population of PWAs by per person hospital costs, and/or multiplying workers infected with HIV by the value of their lost productivity). Eventually it became clear that such studies did not accurately reflect the way that economies actually respond to shocks at a national level. Subsequently more sophisticated models were developed for estimating the impact of HIV/AIDS by focusing on changes in income, consumption, savings and investments that could be attributable to AIDS.
Results from macroeconomic studies of HIV/AIDS produced two extreme positions. At the one extreme there was speculation that the death of so many people would lead to “depletion of the labor force, adverse impact on productive and social sectors, declining health services, shrinking revenues, and loss of military strength.” The end result can be social and political unrest, destitution, and social and economic disintegration, which can lead to further spread of HIV infection. (1) Projections assumed that there would be a widespread shortage of adequate labor in some countries, resulting in reduced productivity and increased inflationary pressures. These results would, in turn, lead to a disintegration of entire economies, especially in countries hardest hit by AIDS.

Others argued that national economies might actually improve in the presence of AIDS, based on the assumption that slow or negative population growth, caused by AIDS-related mortality, might reduce unemployment. A study completed by Roy Anderson, for example, used demographic data in Sub-Saharan Africa to conclude that the potential exists for output per capita to rise (2). Economists pointed to the black plague which killed up to 30 percent of Europe’s population, yet created enormous economic prosperity for those who survived. It has been observed that Uganda, which has been extremely hard hit by the AIDS epidemic, is also a very fast growing economy; thus strengthening the argument that AIDS does not necessarily limit economic growth despite the personal tragedy of the individuals affected. (3)

Subsequent studies found that reduced savings and investment (due to expenditures on treatment) and the loss in productivity of workers (due to increased absenteeism and reductions in the experience levels of workers) would probably outweigh any possible benefits from a smaller population. In Asia, the UNDP has stated that “the HIV/AIDS epidemic has had only a small negative effect on the rate of growth of per capita income so far ... [and] research suggests that the adverse economic growth effects of even a much larger sized HIV/AIDS epidemic may also remain small.” (4) The UNDP was not arguing that the aggregate impact would be small, but rather that per capita income is a poor indicator of the national impact of HIV.

As an alternative to per capita income, the UNDP proposed the use of the Human Development Index (HDI) to measure how national well-being changes over time. Using four variables: 1) life expectancy at birth, 2) adult literacy rate, 3) a measure of school enrollment, and 4) real GDP per capita, it was projected that that significant national impact attributable to HIV/AIDS was likely. However, analyses in Asia revealed that the only variable that would be affected by AIDS was life expectancy, hardly a surprising or particularly useful conclusion.

By the early to mid-1990s, much socioeconomic impact research was focused on the impact of HIV on the household. The World Health Organization, the World Bank, and the UNDP all sponsored an array of studies designed to assess household impact. Sectoral analyses were also designed to assess the impact of HIV/AIDS on particular sectors of a country’s economy. Data has shown that AIDS does not affect all sectors of society equally. For a variety of reasons, AIDS tends to cluster in certain populations. From a business perspective, certain industries have been disproportionately affected by the epidemic. Industries that require their workers to travel for extended periods of time, for example, are likely to be more affected than those industries where employees are less mobile. Meanwhile businesses that predominantly hire skilled workers are likely to have greater difficulty in coping with the epidemic. These studies found that transportation, mining, and the military were all sectors likely to be severely affected by AIDS due to a disproportionately high prevalence of HIV. In industries such as finance, the labour force was also found to be at risk because of the difficulties in replacing highly skilled employees.
However, even in the hardest hit industries, there is limited proof that AIDS will place such a great burden on formal sector businesses that they will incur a large reduction in profitability or go out of business. In labor surplus economies with a low prevalence of HIV, the epidemic could create turnover and low morale, but will probably not have an overwhelming impact on the financial viability of most companies.

These experiences indicate that the idea of single, sensitive, socio-economic impact ‘indicator’ has yet to be identified and very likely will never be. While the AIDS epidemic has very real, and significant, socio-economic impacts (particularly at the household level), these impacts are so disparate that they are not easily reflected in the most common available measures of national economies, which are themselves subject to much larger demographic, political and economic forces.

Socioeconomic impact assessments can play an important role in the overall policy process in developing countries in the future. However, the approaches and the areas of emphasis for such analyses need to further evolve so as to be relevant to the changing epidemic and the needs of policymakers. What is needed are impact assessments that will assist in designing a response to the epidemic that is sustainable and cost-effective.


| Role in Comprehensive Assessment | Socio-economic impact assessments are more appropriately used as specific research tools than as an integrated part of comprehensive program evaluation, but can play an important role in complementing evaluation data as part of strategic planning and decision-making. |
| Key Indicators | 1. Impact of HIV/AIDS on key socio-economic variables  
2. Impact of HIV/AIDS on key macroeconomic variables  
3. Impact of HIV/AIDS on Key Health Outcomes |
Section 5

Indicator Definitions
Program level output matrix (Table 2)

**Definition**
Counts of persons trained by service/program area, service outlets/programs and clients/area.

**Measurement tools**
Program reports (aggregate)

**Rationale/What it measures**
These program level counts aggregated at the national level are a crude measure of the availability and use of services and training activities. When the client counts are combined with census-derived or estimated population figures, these data provide measures of service coverage.

**How to measure it**
A National AIDS Programme should promote the standardization of program categories in line with international definitions. Secondly the NAP must establish a system for collecting and aggregating the three types of basic output counts:
1. number of people trained
2. number of service outlets or programs
3. number of clients served

Double-counting the same client within one service/program area during a single reporting period should be avoided. Thus, if one orphan or vulnerable child (OVC) is receiving school-related expenses from a program and also receives periodic nutritional support and counselling from the same program, this child is only counted once within the reporting period under OVC. It is the responsibility of the NAP to ensure that while program-level summary counts only count the number of persons served once, each person served should be given the appropriate quality package of services, according to national/international standards.

It is acceptable to count the same person in multiple service/program areas (e.g., OVC and prevention of mother-to-child prevention plus [PMTCT+], antiretroviral therapy [ART] and Palliative Care) but not to count a person for the same service multiple times. Persons receiving services in multiple reporting cycles, however, will be counted again in the next cycle if they are still receiving services (e.g., a person on ART served in one annual period will also be counted if he/she is served in the next reporting period). Thus, reports show the total number of persons currently being served within each reporting period.

The same applies to counting numbers of people trained. A person trained more than once within a given period is only counted as one person trained; however, if this person is trained in a different area then he/she can also be counted for that area.
Interpretation/Strengths and limitations
Estimated availability and use of programs and services allows for an assessment of whether or not prevention and care targets are being reached. They also potentially stimulate further investment, by giving donors easily accessible output results to compare with stated goals.

Double counting of clients and person trained, in particular, is an issue. Measures should be taken by the National AIDS Programme to minimize double counting, through promotion of case-based program monitoring systems and systems for the aggregation of the data generated.

Percent 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

**Definition**
Percentage of young women and men aged 15–24 who, in response to prompted questions, say that people can protect themselves from contracting HIV by having sex with only one faithful, uninfected partner, and using condoms, who know that a healthy-looking person can have the AIDS virus, and who correctly reject the two most common local misconceptions about AIDS transmission.

**Measurement tools**
Population-based survey such as Behavioural Surveillance Surveys (BSS) focusing on youth.

**Rationale/What it measures**
Assesses progress in achieving universal knowledge of the essential facts about HIV transmission.

**How to measure it**
This indicator is constructed from responses to the following set of prompted questions:

1. Can the risk of HIV transmission be reduced by having sex with only one faithful, uninfected partner?
2. Can the risk of HIV transmission be reduced by using condoms?
3. Can a healthy-looking person have HIV?
4. Can a person get HIV from mosquito bites? [this is an example, local misconceptions should be questioned here]
5. Can a person get HIV by sharing a meal with someone who is infected? [this is an example, local misconceptions should be questioned here]

Those who have never heard of HIV/AIDS should be excluded from the numerator but included in the denominator.

Indicator scores are required for all respondents aged 15–24 years and should be reported separately for males and females, according to urban/rural residence.

Scores for each of the individual questions (based on the same denominator) are required in addition to the score for the composite indicator.

**Numerator**
Number of young women and men aged 15–24 who, in response to prompted questions, say that people can protect themselves from contracting HIV by having sex with only one faithful, uninfected partner, and using condoms and know that a healthy-looking person can have the AIDS virus, and who correctly reject the two most common local misconceptions about AIDS transmission.
Denominator
Number of young women and men aged 15–24 surveyed

Interpretation/Strengths and limitations
The belief that a healthy-looking person cannot be infected with HIV is a common misconception that can result in unprotected sexual intercourse with infected partners.

Correct knowledge of false modes of HIV transmission is as important as correct knowledge of true modes of transmission. For example, the belief that HIV is transmitted through mosquito bites can weaken motivation to adopt safe sexual behavior, while the belief that HIV can be transmitted through sharing food reinforces the stigma faced by people living with AIDS.

This indicator is particularly useful in countries where knowledge about HIV/AIDS is poor because it allows for easy measurement of incremental improvements over time. However, it is also important in other countries because it can be used to ensure that pre-existing high levels of knowledge are maintained.

The “two most common misconceptions about AIDS transmission” will vary not only from country to country, but from survey to survey in the same country over time. This should be kept in mind when comparing this indicator across countries and over time.

Source: UNGASS (2002)
Percent of never-married young people aged 15-24 who never had penetrative sex

**Definition**
Percent of never married young women and men aged 15–24 who have never had penetrative sex

**Measurement tools**
Population-based surveys such as DHS/AIS, RHS, BSS (youth)

**Rationale/What it measures**
This indicator is Part 1 of a composite indicator that provides information on important aspects of sexual behavior. This particular indicator describes the proportion of never married young people surveyed who have never had sex, thus the prevalence of virginity among young people. Looking at this prevalence within narrow age ranges (15–16, 17–18, 19–20, 21–22, and 23–24, for example, or better yet, in single ages) across time allows program managers to see if the age at first sex is moving.

**How to measure it**
Respondents [15–24 year olds] are asked if they have ever had penetrative sex. The indicator should be reported separately for men and women. If the indicator is calculated for groupings of ages that are broader than the period of time that has passed, the indicator will not be able to reflect changes that may in fact be occurring. It is therefore recommended that this indicator be reported by single age.

**Numerator**
Number of never married young women and men who have never had sex

**Denominator**
Number of never married young women and men aged 15–24 surveyed

**Interpretation/Strengths and limitations**
Abstinence from sex, being faithful to one partner, and using condoms are the ways of preventing HIV infection that form the central message of USG programs. This indicator describes the extent to which abstinence is practiced among youth.

In some settings, the proportion of those aged 20–24 who are never married will be very low, at least among women, and it may not be appropriate to construct the indicator for this age group in these cases.

The other parts of the ABC composite should be considered as additional indicators as the composite shows movement of youth among the different behaviours if collected across time. Considering all six aspects of behaviour together makes sense, as each component affects the other and each component is of progressively riskier behaviour.

Source: Adapted from UNAIDS YPG (2004)
Proportion of young women aged 15 - 24 who have had sex in the last 12 months with a partner who is 10 or more years older than themselves

**Definition**
Proportion of young women who have had sex in the last 12 months with a partner who is 10 or more years older than themselves

**Measurement tools**
Population-based surveys such as DHS/AIS, RHS, BSS [youth]

**Rationale/What it measures**
This indicator measures the progress made towards reducing the proportion of young women having sex with older men. Sex between young women and older men is often risky because young women lack the power in the relationship to negotiate safe sex. It is also an efficient means of spreading HIV infection, since, for physiological reasons, younger women are more likely to get infected. Each sexual act with an infected man carries a higher risk of infection for a young girl, and older men are more likely than younger men to be infected. AIDS programmes sometimes try to address this issue through behaviour change campaigns aimed at making sex with younger women socially unacceptable among older men, and through initiatives to increase girls’ negotiating power.

**How to measure it**
In a general population survey, respondents are first asked whether they have had sex in the past 12 months. Of those who said they had, respondents are then asked about the ages of the last three partners within the past 12 months. The numerator includes all those respondents who had sex with a man who is at least 10 years older than themselves of the last three partners in the last 12 months.

This indicator should be reported as a percentage presented separately for age into three groups: 15–19, 20–24 and 15–24. It should be further disaggregated by current marital status, where possible.

**Numerator**
Number of female respondents aged 15-24 years who have had sex in the last 12 months with a partner who is 10 years or more older than themselves

**Denominator**
Female respondents aged 15-24 years who have had sex in the last 12 months

**Interpretation/Strengths and limitations**
This measure has two major limitations. The first is that people often do not know the exact age of their sex partners. This is more likely to be true of casual partners than of spouses. The second is that it is not clear exactly what age difference constitutes an elevated risk of exposure to HIV.
When uncertain about a partner’s age, respondents frequently give numbers that “heap” around numbers such as 20 or 30. This may well distort the indicator. It should be noted, however, that the biases introduced through age heaping or age misreporting are unlikely to change greatly over time, so this may be of little consequence when looking at trends.

This measure will not give an exact picture of patterns of age mixing, and it will not capture small shifts in the age gap between partners. But it should capture the substantial changes in age mixing that HIV prevention and life-skills programmes promote, since women are unlikely to mistake a peer for a man much older than themselves. If women increasingly choose to have sex with their peers rather than with older men, or if older men become less likely to seek out substantially younger partners, these changes will be reflected in the indicator, regardless of errors in age reporting.

Percent of women and men aged 15–49 who had sex with more than one partner in the last 12 months

**Definition**
Percent of women and men aged 15–49 who have had sex with more than one partner in the last 12 months, of all people aged 15–49 surveyed.

**Measurement tools**
Population-based surveys such as UNAIDS general population survey, DHS/AIS, RHS

**Rationale/What it measures**
Prevention messages should focus on abstinence and also on mutual monogamy. But because sexual relationships, particularly among young people, can be frequently unstable, relationships that were intended to be mutually monogamous may break up and be replaced by other relationships in which similar intentions prevail. Particularly in high HIV prevalence epidemics, serial monogamy is not greatly protective against HIV infection. This indicator measures the proportion of people that have been exposed to more than one partner in the last year.

**How to measure it**
In a survey among people aged 15–49, respondents are asked about their sexual partnerships in the last year.
The indicator should be reported separately for men and women. It should also be constructed separately for those aged 15–19, and 20–24, 15–24, and 15–49.
To cope with the measurement challenge posed by men in polygamous societies, who may have multiple partners within marriage, it may be necessary to disaggregate this indicator by marital status including polygamy.

**Numerator**
Number of women and men aged 15–49 who have had sexual intercourse with more than one partner in the last 12 months

**Denominator**
Number of women and men aged 15–49 surveyed who report being sexually active in last 12 months

**Interpretation/Strengths and limitations**
This indicator does not distinguish between marital and non-marital partners. It tracks all multiple partnerships, regardless of their relative levels of risk. The indicator also suffers from the expected respondent and social desirability bias. For people saturated with prevention messages, there will be high motivation to under-report partners. Likewise, social pressure for women to give untruthful answers may be strong.

Percentage of young people age 15 – 24 reporting the use of condom during sexual intercourse with a non-regular sexual partner

Definition
This indicator assesses progress in preventing early-age exposure to HIV through unprotected sex with non-regular partners.

Measurement tools
Population-based survey such as DHS, UNICEF MICS, BSS (youth)

Rationale/What it measures
Consistent correct use of condoms within non-regular sexual partnerships substantially reduces the risk of sexual HIV transmission. This is especially important for young people who often experience the highest rates of HIV acquisition because they have low prior exposure to infection and sometimes relatively high numbers of non-regular sexual partnerships. Consistent condom use with non-regular sexual partners is important even in countries where HIV prevalence is low because it can prevent the spread of HIV in circumstances where non-regular relationships are common. Condom use is one measure of protection against HIV/AIDS; delaying age at first sex, reducing the number of non-regular sexual partners, and being faithful to one uninfected partner are equally important.

How to measure it
Survey respondents aged 15 – 24 years are asked whether they have commenced sexual activity (or this is inferred from responses to a question on age at first sex). Those who report sexual activity (whether currently married or unmarried) are then asked the following questions:

1. In the last 12 months, have you had sexual intercourse with a non-regular partner who was neither your spouse nor someone you were living with?
2. If the answer to question 1 is “yes”. How many non-regular partners have you had sex with in the last 12 months?
3. If the answer to question 1 is “yes”: Did you (or your partner) use a condom the last time you had sex with your most recent non-regular partner?

Numerator
Number of the respondents (aged 15–24) who reported having had a non-regular (i.e. non-marital and non-cohabiting) sexual partner in the last 12 months who also reported that a condom was used the last time they had sex with this partner.

Denominator
Number of respondents (15 – 24) who reported having had a non-regular sexual partner in the last 12 months.
**Interpretation/Strengths and limitations**

This indicator shows the extent to which condoms are used by young people who engage in non-regular sexual relationships. However, the broader significance of any indicator score will depend upon the extent to which young people engage in such relationships. Thus, levels and trends should be interpreted carefully using the data obtained on percentages of young people who have started having sex and (of those) that have engaged in a non-regular partnership within the last year.

Condom use is just one measure of protection against HIV/AIDS. Delaying first sex, reducing the number of non-regular sexual partner, and remaining faithful to one’s non-infected partners are equally important. Thus, countries are strongly advised to report on the suggested additional indicators on median age at first sex and higher-risk sex in the last year, using data form the same survey instrument as the one proposed for calculating the core indicator.

*Source: UNGASS 2004.*
Percent of women and men aged 15–49 who say they used a condom the last time they had sex with a non-marital, non-cohabiting partner, of those who have had sex with such a partner in the last 12 months

**Definition**
Percent of women and men aged 15-49 who say they used a condom the last time they had sex with a non-marital, non-cohabiting partner, of those who have had sex with such a partner in the last 12 months.

**Measurement tools**
Population-based surveys such as UNAIDS general population survey, DHS/AIS, BSS (adult), RHS.

**Rationale/What it measures**
If everyone used a condom every time they had sex with a non-marital or non-cohabiting partner, a heterosexually transmitted HIV epidemic would be almost impossible to sustain. While AIDS programs may try to reduce casual partnerships, they must also, if they are to succeed in curbing the epidemic, promote condom use in the casual partnerships that remain. This indicator tracks changes in condom use in these partnerships.

**How to measure it**
For each partner listed in the last 12 months, respondents are asked whether they used a condom the last time the couple had sex. Other questions will allow for the classification of partnerships as non-marital and non-cohabiting.

The indicator should be reported separately for men and women. It should also be constructed separately for those aged 15–24 and 15–49.

**Numerator**
Number of those women and men in the denominator who used a condom the last time they had sex with their most recent non-marital, non-cohabiting partner

**Denominator**
Number of women and men aged 15–49 who report at least one non-marital, non-cohabiting partner in the last 12 months

**Interpretation/Strengths and limitations**
A rise in this indicator is an extremely powerful indication that condom promotion campaigns are having the desired effect among those high-risk individuals with multiple partners.

Since condom promotion campaigns aim for consistent use of condoms with non-regular partners rather than simply occasional use, some surveys have tried to ask directly about consistent use, often using an always/sometimes/never question. While this may be useful in sub-population surveys, it is subject to recall bias and other biases and is not sufficiently robust for use in a general population survey. Asking about the
most recent act of non-marital, non-cohabiting sex minimizes recall bias and gives a good cross-sectional picture of levels of condom use. It is recognized that consistent use of condoms is an important goal. But inevitably, if consistent use rises, this indicator will also rise.

An increase over time of this indicator does not necessarily mean an increase in “safe sex” practices; the percentage of non-marital, non-cohabiting partners may be decreasing. This indicator should be analysed in combination with an estimate of the percentage of respondents having sex with a non-marital, non-cohabiting partner.

Source: National AIDS Programs: A Guide to Monitoring and Evaluation (UNAIDS, 2000); MDG; YPG
Percent of men reporting sex with a sex worker in the last 12 months who used a condom during last paid intercourse

Definition
Percent of men aged 15–49 reporting condom use the last time they had sex with a sex worker, of those who report having had sex with a sex worker in the last 12 months.

Measurement tools
Population-based surveys such as UNAIDS general population survey, DHS/AIS, BSS, RHS.

Rationale/What it measures
This indicator gives an indication of the success or failure of campaigns to increase condom use among clients of sex workers. It measures condom use by men with partners they consider to be commercial partners.

How to measure it
In general population surveys or in specialized surveys among groups of men who fit the profile of clients of sex workers (e.g., members of the military, truck drivers), men are asked if they have paid someone in exchange for sex in the last 12 months. If they reply yes, they are further asked whether they used a condom the last time they did so.

Numerator
Number of men who report that they used a condom at last sex with a commercial sex worker or when they last paid someone in exchange for sex.

Denominator
Number of men 15–49 who had sex with a commercial sex worker or paid someone in exchange for sex in the last 12 months.

Interpretation/Strengths and limitations
This indicator is invaluable in tracking the success of major programs to promote condom use in commercial sex.

Most AIDS programs aim to increase consistent use of condoms with sex workers. Surveys of clients of sex workers will almost certainly want to ask whether they use a condom always, sometimes, or never in sex with sex workers over the last 12 months. However the pressure to say “always” is strong. Asking about a particular, and recent, act of sex may give a more robust measure of levels of condom use in commercial sex. However, it is strongly recommended that programs focusing prevention resources on increasing condom use in commercial sex also construct an indicator of consistent use of condoms in commercial sex.

Where there are several distinct populations of sex workers with different levels of perceived risk—for example, brothel-based prostitutes may be thought of as having riskier behaviour than commercial sex
workers in nightclubs—data may be collected separately for separate categories of sex worker. This can provide important information for programming. For example, men may report very high levels of consistent condom use in brothels, but much lower levels with commercial sex workers working out of nightclubs. This may be a warning signal for a shift of the high prevalence from one group to another. In constructing the indicator, however, only the last commercial sex partner of any sort should be considered.

It is very difficult to define commercial sex in a way that translates from one place to another and this is the major limitation of this indicator. Once commercial sex has been described for a country, however, this is unlikely to change much over time.

An increase over time of this indicator does not necessarily mean an increase in “safe sex” in commercial sex; the percentage of men having sex with commercial sex workers may be decreasing. This indicator should be analysed in combination with an estimate of the percentage of men having sex with a commercial sex partner.

Percent of sex workers who report using a condom with their most recent client, of sex workers surveyed having sex with any clients in the last 12 months

Definition
Percent of sex workers who report using a condom with their most recent client, of sex workers surveyed having sex with any clients in the last 12 months.

Measurement tools
BSS (sex workers).

Rationale/What it measures
This indicator measures the success of campaigns to promote condom use in commercial sex from reports given by sex workers. Although many surveys and the previous indicator gather data from actual clients of sex workers, this indicator looks to men and women actually working as providers of sex. Collected in conjunction with self-reported client data, this indicator will validate levels of commercial sex and condom use. In areas where patronage of commercial sex is highly stigmatised, clients may hesitate to report visits to commercial sex workers. As well, clients may desire to give the ‘good’ answer that they used a condom at last sex, especially in areas where programs have stressed condom use at commercial and other sex. This indicator seeks responses from sex workers, who may not have the same motivation to give socially desirable answers and who offer a different perspective.

How to measure it
In special surveys of sex workers, sex workers are asked whether they used a condom with their most recent client, divided by the total number of sex workers interviewed who report sex with clients in the last 12 months.

Numerator
Number of sex workers who used a condom with their most recent client.

Denominator
Number of sex workers who report sex with clients in the last 12 months

Interpretation/Strengths and limitations
The goal of most AIDS programmes working with sex workers is an increase in the number of sex workers who always use a condom and thus are protected from HIV infection. As with clients, surveys of sex workers will almost certainly want to ask whether they use a condom always, sometimes, or never with their clients. But again, the pressure to say “always” is strong. And again, asking about a recent act of sex may give a more robust measure of levels of condom use with clients. However it is strongly recommended that programmes focusing prevention resources on increasing condom use in commercial sex also construct an indicator of consistent use of condoms in commercial sex. If both questions are asked, the “last client” question should precede the “always, sometimes, never” question.
The difference between the two answers can be useful for programme purposes. What proportion of those who say they used a condom at last sex also say they are not regular condom users, for example? Do any sex workers who claim to “always” use condoms with their clients also say that they did not use one with their last client?

Since a sex worker typically sees more clients than vice versa, it is unlikely that there will be an exact match between condom use reports from sex workers and from their clients. However if both data sets show trends in the same direction, confidence in this self-reported data is likely to be strengthened. It is possible to construct a similar indicator for male sex workers in special surveys of that group.

Percent of men who used a condom at last sex with a male partner, of those who have had sex with a male partner in the last 6 months

Definition
Percent of men (or their partners) who used a condom at last penetrative sex with a male partner, of those who have had sex with a male partner in the last 6 months.

Measurement tools
BSS (men who have sex with men).

Rationale/What it measures
The single most common intervention among men who have sex with men is the promotion of condom use during penetrative (anal) sex. This indicator measures progress towards increasing the proportion of acts of anal sex that are protected against HIV transmission. The indicator measures condom use by either partner during the last penetrative sex act.

How to measure it
This indicator is intended for use where special surveys among men who have sex with other men are possible. In a behavioural survey in a sample of men who have sex with men, respondents are asked about sexual partnerships in the preceding six months, about anal sex within those partnerships, and about condom use at last anal sex.

Numerator
The number of men reporting that a condom was used the last time they had anal sex.

Denominator
All men who reported having anal sex at least once in the previous six months.

Interpretation/Strengths and limitations
This measure suffers from difficulties of recall. Its most serious limitation is that it does not distinguish between regular and non-regular partners and that information about sero-status may not be known. Many couples who know their sero-status and are sero-concordant may choose not to use condoms within their regular partnership. Provided they use condoms in any sex with other partners, this represents no increased risk of transmission within the partnership. Where non-use of condoms within stable partnerships is common, the indicator will suggest higher levels of risk than actually exist.

However, defining “regular” partnerships in the context of men who have sex with men is fraught with difficulty, particularly in communities where male-male sex is clandestine. Condom use at last anal sex with any partner probably gives a good indication of overall levels and trends of protected and unprotected sex in populations surveyed.
This indicator does not give any idea of risk behaviour in sex with women, among men who have sex with both men and women. In countries where men in the sub-population surveyed are likely to have partners of both sexes, condom use with female as well as male partners should be investigated. In these cases, data on condom use should always be presented separately for male and female partners.

**Percentage of young people 15 – 24 who know at least one formal source of condoms**

**Definition**
Percentage of young people 15-24 who know of at least one formal source of condoms

**Measurement tools**
Population based survey such as DHS/AIS, BSS [general population, youth, etc].

**Rationale/What it measures**
Studies in sub-Saharan Africa have demonstrated that adolescents who know of at least one source of condoms are much more likely to use them. This indicator measures the proportion of young people who can name at least one formal source of condoms.

Note that there may be many acceptable answers to the question on sources, including health centres, pharmacies, stores, outreach clinics, vending machines, or any other formal structure or setting where condoms can be purchased or obtained free of charge. The exact range of acceptable sources is best defined in each national setting.

**How to measure it**
This indicator is assessed by asking respondents to name at least one source where they can obtain condoms. The question should allow for more than one source to be listed [the maximum number can be defined in each national setting, but three sources is an acceptable option]. In a surveyor-administered questionnaire, the surveyor should simply record the sources listed, probing the respondent to think of another source until the set number of sources is listed, or until the respondent cannot name any additional source. In a self-administered questionnaire, a number of blank spaces should be provided into which the respondent writes his/her response. At the analysis stage, certain stated sources may be considered unacceptable, or “incorrect” (for example, “friends” or “family members” may not be considered formal sources of condoms).

This indicator should be presented as a percentage separately for men and women disaggregated by age in the following groups: 15–19, 20–24.

**Numerator**
Number of young people, aged 15-24 years, who can name at least one formal source of condoms.

**Denominator**
All young people 15-24 years surveyed.

**Interpretation/Strengths and limitations**
Sound knowledge of HIV transmission and prevention is a prerequisite, although alone insufficient, for adoption of behaviour that reduces the risk of HIV transmission. Correct knowledge of false modes of
transmission is as important as knowing correct modes. Disaggregated data on this can provide meaningful guidance for national health-promotion programmes.

This indicator is easy to measure in a survey, and is especially informative in countries where overall knowledge of HIV/AIDS is low, because it permits easy measurement of incremental improvement over time. In countries where knowledge is high, the indicator can tell whether the high levels are maintained.

Condoms available for nation-wide distribution

Definition
Total number of condoms available for distribution nation-wide during the preceding 12 months, divided by the total population aged 15-49. This indicator was formerly the WHO/GPA Prevention Indicator 2.

Measurement tools
WHO/GPA protocol for estimating condom availability for distribution at the central and peripheral level

What it measures
The best distribution system in the world is not much help if there is nothing to distribute. The first challenge for national programs promoting condom use is to ensure that there are enough condoms in the country to satisfy demand. This indicator measures the number of condoms available for use by those in the most sexually active age group. Where active efforts are made to promote the availability of female condoms, these should be included, although the indicator should be disaggregated by type.

This indicator can be used together with indicators of sexual behaviour to give a picture of condom provision. For example, if a third of all men aged 15-49 say they have had non-regular sex in the past year and 20 percent of married couples say they have used condoms to avoid pregnancy, and yet there are only three condoms available per sexually active adult per year, it can be deduced that the supply of condoms nationally is not sufficient to meet the potential demand.

How to measure it
The indicator is measured by estimating the number of condoms (male and female) available for in-country use during the last 12 months. Key informants are identified and interviewed to uncover all possible sources of condom manufacture, import, distribution and storage. Next, data are collected from all manufacturers and major commercial distributors as well as major donors, condom storage facilities, and government and NGO bodies involved in acquiring and distributing condoms.

This indicator sums the condoms in stock nationally at the start of the 12-month period, plus condoms imported during the 12-month period, plus condoms manufactured in country during the same period, minus any exports of condoms over that period. The sum of all condoms available for use in the country during the past 12 months is then divided by the total population aged 15-49.

Strengths and limitations
The number of condoms available at the central level helps assess the adequacy of overall condom availability. It is important to note, however, that “availability” is not the same as “accessibility”, which includes dimensions of price, location and access by sub-populations at risk for unprotected sex and HIV. It is often the case that not all available condoms are distributed, or reach the individuals that most need them to protect against the spread of HIV. This indicator by itself cannot give a picture of how many “in-stock” condoms actually get distributed or used.
Ironically, efforts at the national level to encourage condom use sometimes complicate the measurement of this indicator. Many countries have deregulated condom imports in the face of AIDS, in order to maximize the number of condoms available. This means that condoms may be imported by a wide variety of companies, NGOs, donors and government departments [the health ministry, the defense ministry, etc.] without necessarily reporting numbers imported to a central body. Traditionally, there is also a distinction between condoms distributed through family planning programs and those distributed to reduce sexually transmitted infections. It is important to take both sources into account.

Where condom promotion activities are centred around marketing condoms at subsidized prices to people likely to be engaging in risky sex [social marketing], sales of particular brands of condoms can also provide a useful indicator of program success. Organizations responsible for the social marketing of condoms typically keep very good records of condoms distributed down to the retail level. While these data tell only part of the story of condom availability, they provide a very low-cost source of information for the National AIDS Program, and can be very useful for advocacy purposes. A rise in the number of condoms manufactured or imported into a country, or of condoms sold, can be useful in supporting other indicators measuring rises in self-reported condom use, or falls in self-reported STIs and eventually HIV prevalence.

Percent of patients with STIs at health care facilities who are appropriately diagnosed, treated and counselled

Definition
Percent of patients with STIs at health care facilities who are assessed and treated in an appropriate manner.

Measurement tools
Health facility survey-based on revised guidelines on evaluating STI services and/or MEASURE service provision assessment (SPA).

Rationale/What it measures
The availability and utilization of services to treat and contain the spread of STIs may help reduce the rate of HIV transmission within a population. STI services also provide opportunities to promote HIV testing. One of the cornerstones of STI control is comprehensive case management of patients with symptomatic STIs. This composite indicator reflects the competence of health service providers to appropriately provide these services, and the quality of services provided.

How to measure it
Data are collected in observations of provider-client interaction at a sample of health care facilities offering STI services. Providers are assessed on history taking, examination, proper diagnosis and treatment of patients, and effective counselling including counselling on partner notification, condom use and HIV testing. Appropriate diagnosis and treatment and counselling procedures in any given country, are those specified in national STI service guidelines.

Note: Disaggregate by gender and for patients under and over 20 years of age. Scores for each component of the indicator (i.e., history taking, examination, diagnosis and treatment, and counselling) must be reported as well as the overall indicator score.

Numerator
Number of STI patients for whom the correct procedures were followed on:
(a) history-taking;
(b) examination;
(c) diagnosis and treatment; and
(d) effective counselling on partner notification, condom use and HIV testing.

Denominator
Number of STI patients for whom provider-client interactions were observed.

Interpretation/Strengths and limitations
This composite indicator reflects the competence of health-service providers to correctly identify and treat STIs, the availability of the necessary equipment, drugs and materials, and the provision of appropriate
counselling to patients. The indicator reflects the quality of services provided but not the cost or accessibility of these services. The standard for ‘appropriate’ care upon which the measurement of the indicator is based may vary between countries (or over time). Currently, syndromic management is seen as the most practical approach in high-prevalence, low-income countries, since there are fewer bottlenecks in diagnosis.

Source: UNGASS, GFATM.
**Percentage of IDUs who have adopted behaviours that reduce transmission of HIV**

**Definition**
Percentage of injecting drug users (IDUs) who have adopted behaviours that reduce transmission of HIV, i.e., who both avoid sharing injecting equipment and use condoms.

**Measurement tools**
Time-location cluster sample survey or targeted snowball sample survey (refer to BSS manual).

**Rationale/What it measures**
Safe injecting and sexual practices among injecting drug users (IDUs) are essential, even in countries where other modes of HIV transmission predominate, because

(i) the risk of HIV transmission among IDUs using contaminated injecting equipment is extremely high; and

(ii) IDUs can provide a reservoir of infection from which HIV spreads to the wider population.

**How to measure it**
Survey respondents are asked the following sequence of questions:

1. Have you injected drugs at any time in the last month?
2. If the answer to question 1 is "yes": Have you shared injecting equipment at any time in the last month?
3. Have you had sexual intercourse in the last month?
4. If the answer to questions 1 & 3 are both "yes": Did you [or your partner] use a condom when you last had sex?

**Numerator**
Number of respondents who report having never shared injecting equipment during the last month and who also reported that a condom was used the last time they had sex.

**Denominator**
Number of respondents who report injecting drugs in the last month and having had sexual intercourse in the last month.

Wherever possible, data for IDUs should be collected through service organizations that traditionally work with these populations. Access to IDU survey participants as well as the data collected from them must remain confidential.

**Interpretation/Strengths and limitations**
Gaining access to IDUs poses a significant challenge. Thus, data obtained may not be based on a representative sample of the national IDU population. This will need to be borne in mind when interpreting results and especially when cross-country comparisons are made.
The extent of IDU-associated HIV transmission within a country depends upon: (i) the size, stage and pattern of dissemination of the national HIV epidemic; (ii) the extent of injecting drug use; (iii) the degree to which IDUs use contaminated injecting equipment; and (iv) the patterns of sexual mixing and condom use among IDUs and between IDUs and the wider population. This indicator provides information on the third of these factors and partial information on the fourth.

Source: UNGASS 2004
Screening of blood units for transfusion

Definition
The percent of blood units transfused in the last 12 months that have been adequately screened for HIV according to national or regional standards.

Measurement tools
MEASURE Evaluation blood safety protocol.

Rationale/What it measures
Blood safety programs aim to ensure that the overwhelming majority (ideally 100 percent) of blood units are screened for HIV, and those that are included in the national blood supply are indeed uninfected. This is demonstrably not the case in many countries. Some blood units are not screened at all, others are screened by poorly trained personnel using outdated equipment or insufficient inputs. What’s more, poor blood testing facilities mean that some blood is screened using antibody tests at a time after the donor has become infected with HIV but before they have developed antibodies to the virus. Together, these factors mean that a significant proportion of blood units may be classified as safe even though they are infected. This indicator gives an idea of the overall percentage of blood units that have been screened to high enough standards that they can confidently be declared free of HIV.

How to measure it
Three pieces of information are needed for this indicator: the number of blood units transfused in the previous 12 months, the number of blood units screened for HIV in the previous 12 months, and among the units screened, the number screened up to WHO or national standards. The number of units transfused and the number screened for HIV should be available from health information systems. Quality of screening may be determined from a special study that retests a sample of blood previously screened, or from an assessment of the conditions under which screening occurred. In situations where this approach is not feasible, data on the percentage of facilities with good screening and transfusion records and no stock-outs of test kits may be used to estimate adequately screened blood or this indicator.

Numerator
See above.

Denominator
See above.

Interpretation/Strengths and limitations
Where sufficient information exists to construct it, this measure is a strong indicator of the overall safety of the blood supply. However changes in the indicator could reflect changes in the proportion of blood units screened or changes in the quality of the screening process. A successful campaign to reduce unnecessary transfusions may also be reflected in the indicator, since the overall number of transfused units would fall...
and the proportion of those screened to WHO/national standards should rise in consequence. However, the different elements of the indicator should therefore be reported separately for programmatic purposes.

Where health systems are decentralized, or where the private sector is involved in blood screening and blood banking, it may be difficult to obtain good enough information to construct robust indicator on a national scale. In this case, it will probably be necessary to select sentinel hospitals and laboratories in both the public and the private sector for facility-based surveys of blood transfusion and screening quality.

Source: National AIDS Programs: A Guide to Monitoring and Evaluation (UNAIDS, 2000); GFATM
Percent of young people aged 15-24 that are HIV infected

Definition
Percent of young people aged 15–24 that are HIV-infected.

Measurement tools
1. HIV sentinel surveillance: it is recommended that this indicator is measured through use of existing ANC-based sentinel surveillance data (15-24 year old pregnant women) and epidemiological models (EPP). WHO guidelines.
2. Targeted sample survey: in concentrated epidemics this indicator may best be measured through targeted sample surveys (such as the BSS) of MSM and/or FSW with biomarkers.
3. General Population Survey: Where feasible, the indicator should be periodically measured directly through serological survey of the general population (women and men age 15-24), during DHS-type or AIS-type surveys. This allows sex-specific, age-specific estimates to be produced.

NOTE: Methodologies presented below refer to the ANC and the targeted sample survey measurement approach.

Rationale/What it measures
The ultimate goal in the fight against HIV/AIDS is to eradicate HIV infection. Because HIV infections among youth are likely to have been more recently acquired, this indicator is a proxy for the number of new infections that are occurring and can be used as marker of progress towards this goal.

How to measure it
This indicator is calculated using data from pregnant women attending ANCs in HIV sentinel surveillance sites in the capital city, other urban areas and rural areas should be provided so that national estimates can be calculated, where possible.

Median figures should be used for other urban and rural areas. Indicator scores should be given for the whole age range (15–24 years) and disaggregated by five-year age group [i.e., 15–19 year olds and 20–24 year olds]. The genuine behavioural change should first become detectable in HIV prevalence figures for the 15–19 year old age group. Where available, parallel behavioural surveillance survey (BSS) data should be used to aid interpretation of trends in HIV prevalence.

In countries where first sexual intercourse occurs at an older age and/or levels of contraception are high, HIV prevalence among pregnant 15–24-year-old women will differ from that among women in the age group.

This indicator gives a fairly good estimate of relatively recent trends in HIV infection in locations where the epidemic is heterosexually driven. It is less reliable as an indicator of HIV epidemic trends in locations where most infections remain temporarily confined to subpopulations with high-risk behaviours.
This indicator is calculated using data from HIV tests conducted among members of chosen population groups in the capital city.

This indicator should be reported for the capital city only, to avoid biases in trends over time. In recent years, many countries have expanded the number of sentinel sites to include more rural ones, leading to biased trends resulting from aggregation of data from these sites.

**Numerator**
Number of ANC attendees [aged 15–24] tested whose HIV test results are positive.
Or
Number of members of population groups tested whose HIV test results are positive.

**Denominator**
Number of ANC attendees [15–24] tested for their HIV infection status.
Or
Number of members of population groups tested for their HIV infection.

**Interpretation/Strengths and limitations (general population)**
HIV prevalence at any given age is the difference between the cumulative numbers of people who have become infected with HIV up to this age and the number who died expressed as a percentage of the total number alive at this age. At older ages, changes in HIV prevalence are slow to reflect changes in the rate of new infections (HIV incidence) because the average duration of infection is long. Furthermore, declines in HIV prevalence can reflect saturation of infection among those individuals most vulnerable and rising mortality rather than behavioural change. At young ages, trends in HIV prevalence are a better indication of recent trends in HIV incidence and risk behaviour. Thus, reductions in HIV incidence associated with genuine behavioural change should first become detectable in HIV prevalence figures for the 15–19 year old age group. Where available, parallel behavioural surveillance survey (BSS) data should be used to aid interpretation of trends in HIV prevalence.

In countries where first sexual intercourse occurs at an older age and/or levels of contraception are high, HIV prevalence among pregnant 15–24-year-old women will differ from that among women in the age group.

This indicator gives a fairly good estimate of relatively recent trends in HIV infection in locations where the epidemic is heterosexually driven. It is less reliable as an indicator of HIV epidemic trends in locations where most infections remain temporarily confined to subpopulations with high-risk behaviours.

*Source: UNGASS, MDG*
Percentage of the general population aged 15 – 49 receiving HIV test results in the last 12 months

Definition
Percentage of the general population aged 15–49 years receiving HIV test results in the past 12 months

Measurement tools
1. Program monitoring records/health management information systems.
2. A population-based survey.

Rationale/What it measures
HIV testing and counselling are important entry points for prevention and care needs. Measuring the number of people who access these services is therefore important to indicate the number of people who could potentially benefit from prevention and care. In addition, over time this indicator provides information on the number of new people tested.

This indicator is designed to show how many people have been tested and received results through post-test counselling. This indicator can be used as a proxy for the coverage of HIV counselling and testing services.

How to measure it
1. Program reports/health management information systems. Ideally, information for this indicator can be collected by reviewing data collected at the local program level and making them available through the health management information system at the national level.

2. A household survey. The indicator is asked through a population-based survey and should be stratified by age.

Numerator
Number of people aged 15–49 years who have received HIV test results and post-test counselling in the past 12 months.

Denominator
Total population aged 15–49 years.

Interpretation/Strengths and limitations
When considering coverage for counseling and testing, traditional stand-alone voluntary counselling and testing units are insufficient. Because testing and counselling services are often performed in diagnostic clinical settings where monitoring information is not well tracked, it is important to build capacity for this information. Similarly, testing is not always performed within discrete units [that is, outpatient or inpatient departments], therefore, reports can potentially be duplicated for the same individual being tested in multiple units or those being tested multiple times during the 12-month period.
In other cases such as preventing the mother-to-child transmission of HIV and other HIV testing and counselling, services are performed in the same place. This too will lead to double reporting in the number of people tested.

Collecting this information at the national level through a health management information system may not yet be possible in some settings. Alternative methods for collecting this information such as population-based surveys are resource-intense processes that make the annual collection of these data difficult in some areas. If a population-based survey is used, double counting can be minimized.

Source: UNAIDS 2000, WHO C&S 2004
Percent of all pregnant women attending at least one ANC visit who received an HIV test result and post-test counselling

**Definition**
The percent of all pregnant women attending at least one ANC visit who received an HIV test result and post-test counselling.

**Measurement tool**
Program reports/estimation.

**Rationale/What it measures**
For PMTCT to be effective, it is necessary to know a woman’s sero-status in order to tailor prevention and care to her needs. A successful PMTCT program will reach as many pregnant women as possible to ensure knowledge of sero-status. This indicator provides a broad measure of program coverage in the country. However, issues related to poor access to services, as well as to poor uptake, result in a small percentage of women knowing their status. Therefore, it is important to refer to the program-level indicator described in the footnote below.

**How to measure it**
This indicator requires that program records be reviewed in order to count how many women complete the counselling and testing process (received their test results and post-test counselling). The number of women who attended at least one ANC visit is estimated by multiplying the number of births in the past 12 months by the rate of ANC attendance using census or best source of available data for the estimation.

The numerator may be available through national level records. If these are not available at the national level, they will most likely be available at the district level, where they can be collected directly from facilities where these services are provided.

In some cases, the denominator may be available through the national level ANC registry. If the number is not available or reliable, the estimate of the number of pregnant women described above can be used.

This indicator should be measured every year.

**Numerator**
Number of all pregnant women who receive an HIV test result and post-test counselling in the last 12 months.

**Denominator**
Estimated number of all pregnant women giving birth in the last 12 months who attended at least one ANC visit.
Interpretation/Strengths and limitations

As stated in the document National AIDS Programmes: A guide to monitoring and evaluation (UNAIDS, 2000), this indicator is a broad measure of service provision and gives an idea of coverage in ANC settings where PMTCT interventions are available. This indicator does not attempt to inform service providers about where in the counselling and testing cycle women are lost.

A series of lower-level indicators to determine loss to follow-up is an important indicator that must be used by program managers. Additionally, because the quality of services is not being measured, the information on dropouts and the points at which these occur is of limited use if it is not followed up with operations research to discover why women are failing to complete the cycle.

**Note:** An important program-level counselling and testing indicator must be considered when managing a PMTCT program. The indicator measures the points in the provision of counselling and testing for pregnant women at which women are lost, or “drop out”. Information on where this dropout occurs can be used to further investigate why women are lost at specific points, and ultimately to decreasing that loss. Such information is therefore important for program planning. The indicator includes three components.

a) Number of pregnant women who attend at least one ANC visit and were counseled in a PMTCT site/ all pregnant women.

b) Number of pregnant women accepting testing for HIV/ all pregnant women who attend at least one ANC visit and were counseled in a PMTCT site.

c) Number of women receiving post-test counselling and HIV results/ all pregnant women who attend at least one ANC visit and were counselled in a PMTCT site.

Source: WHO PMTCT 2004
Percent of HIV-infected pregnant women receiving a complete course of antiretroviral prophylaxis to reduce the risk of MTCT

Definition
The percent of women testing positive at selected antenatal clinics in the last year who are provided with a complete course of antiretroviral therapy to prevent mother to child transmission according to national / international guidelines.

Measurement tools
Program monitoring and estimation.

Rationale/What it measures
In the absence of preventative interventions, infants born to, and breastfed by, HIV-infected women have roughly a one-in-three chance of acquiring infection themselves. This can happen during pregnancy, during labour and delivery, or after delivery through breastfeeding. The risk of MTCT can be reduced through the complementary approaches of antiretroviral prophylaxis for the mother, with or without prophylaxis to the infant, implementation of safe delivery practices, and use of safe alternatives to breastfeeding.

How to measure it
The number of HIV-infected pregnant women provided with antiretroviral prophylaxis to reduce the risk of MTCT in the last 12 months is obtained from program monitoring records. Only those women who completed the full course should be included. The definition of a ‘full course’ of antiretroviral prophylaxis will depend on the country’s policy on antiretroviral prophylaxis to reduce the risk of MTCT and may or may not include a dose for newborns. Details of the definition used should be provided.

The number of HIV-infected pregnant women to whom antiretroviral prophylaxis to reduce the risk of MTCT could potentially have been given is estimated by multiplying the total number of women who gave birth in the last 12 months [Central Statistics Office estimates of births] by the most recent national estimate of HIV prevalence in pregnant women [HIV sentinel surveillance antenatal clinic estimates].

The decision as to whether or not to include women who receive treatment from private-sector and NGO clinics in the calculation of the indicator is left to the discretion of the country concerned. However, the decision taken should be noted and applied consistently in both the numerator and denominator. Private-sector and NGO clinics that provide prescriptions for antiretrovirals but assume that the drugs will be acquired by the individuals elsewhere are not included in this indicator, even though such clinics may be major providers of MTCT-reduction services.

Separate estimates of the numbers of pregnant women provided with antiretroviral prophylaxis at public- and private-sector clinics should be given.

The indicator should be constructed separately for those aged 15–24 and 15–49.
Numerator
Number of HIV positive pregnant women receiving a complete course of ARV prophylaxis to reduce the likelihood of MTCT in accordance with nationally approved treatment protocol (or WHO/UNAIDS standards) in last 12 months.

Denominator
Estimated number of HIV-infected pregnant women giving birth in last 12 months.

Interpretation/Strengths and limitations
In many countries, the estimate of HIV prevalence among pregnant women used in the calculation of this indicator will be based on antenatal clinic (ANC)-based HIV surveillance data. In some of these countries, large numbers of pregnant women do not have access to ANC services or choose not to make use of them. Pregnant women with HIV may be more or less likely to use ANC services (or public rather than private ANC services) than those who are not infected, particularly where antiretroviral prophylaxis can be accessed via such services. In such circumstances, this indicator should be interpreted with reference to recent estimates of utilization of national ANC services.

Countries will apply different definitions as to what constitutes a ‘full course’ of antiretroviral prophylaxis. Thus, inter-country comparisons may not be entirely valid and should be interpreted with reference to details of the different definitions used in each case. This indicator does not measure compliance with the antiretroviral treatment regime because it is not possible to monitor drug compliance, unless direct supervision is undertaken.

HIV prevalence among pregnant women aged 15 – 24

Definition
HIV prevalence among 15 – 24 year-old pregnant women is the percentage of pregnant women aged 15 - 24 whose blood samples test positive for HIV.

Rationale/What it measures
HIV infection leads to AIDS. Without treatment, average survival from the time of infection is about nine years. Access to treatment is uneven, and no vaccine is currently available.

About half of all new HIV cases are among people 24 years of age or younger. In generalized epidemics (with prevalence consistently at more than 1 per cent among pregnant women), the infection rate for pregnant women is similar to the overall rate for the adult population. Therefore, the indicator is a measure of the spread of the epidemic. In low-level and concentrated epidemics, HIV prevalence is monitored in groups with high-risk behaviour because prevalence among pregnant women is low.

How to measure it
The number of pregnant women whose blood samples test positive for HIV expressed as a percentage of all pregnant women in that age group whose blood is tested.

Data Collection and Source
Data on HIV in pregnant women come from tests on leftover blood samples taken for other reasons during pregnancy. The samples come from selected antenatal clinics during routine sentinel surveillance, chosen to reflect urban, rural and other socio-geographic divisions in a country. HIV prevalence data in groups with high-risk behaviour are collected in serosurveys that are part of the surveillance system or in ad hoc prevalence surveys. Source: MDG 2003

Only the results of unlinked, anonymous screening of blood taken for other purposes should be used in calculating this indicator of HIV prevalence. Refusal and other forms of participation bias are considerably reduced in unlinked, anonymous HIV testing compared with other programmes that offer counselling and voluntary HIV testing for pregnant women to reduce mother-to-child transmission.

The data are gathered by the World Health Organization and the Joint United Nations Programme on HIV/AIDS.

Periodicity of Measurement
The data are collated annually in many developing countries.

Interpretation/Strengths and limitations
The indicator gives a fairly good idea of relatively recent trends in HIV infection nationwide in countries where the epidemic is generalized. In areas where most HIV infections are confined to subpopulations with high-risk behaviours, trends should be assessed in those populations.
In most countries, serosurveillance sites have not been selected as representative samples of the country. Logistical, feasibility and cost issues guide the selection of these sites. In addition, in many countries, the sites included in the surveillance system have changed over time, making interpretation of trends more difficult.
Percent HIV-infected Infants Born to HIV-infected Mothers

Definition
Percent of HIV-infected infants born to HIV-infected mothers.

Measurement tool
Program reports/estimation.

Rationale/What it measures
Assesses progress toward eliminating mother-to-child HIV transmission. In high-income countries, strategies such as antiretroviral treatment during pregnancy and following birth and use of breastfeeding substitutes have greatly reduced the rate of mother-to-child HIV transmission. In developing countries, significant difficulties exist in implementing these strategies due to constraints in accessing, affording and using VCT and reproductive health and maternal- and child-health services that offer MTCT prevention support. Nevertheless, substantial reductions in MTCT can be achieved in these settings through approaches such as short-course antiretroviral prophylaxis.

How to measure it
The indicator is calculated by taking the weighted average of the probabilities of MTCT for pregnant women receiving and not receiving antiretroviral, the weights being the proportions of women receiving and not receiving ARV, respectively. Expressed as a simple mathematical formula:

\[
\text{Indicator score} = \left( T \times (1-e) + (1-T) \right) \times \nu
\]

where:
- \( T \) = proportion of HIV-infected pregnant women provided with antiretroviral treatment
- \( \nu \) = MTCT rate in the absence of any treatment
- \( e \) = efficacy of treatment provided

\( T \) is simply national programme and behaviour indicator #4. Default values of 25% and 50%, respectively, can be used for \( \nu \) and \( e \). However, where scientific estimates of the efficacy of the specific forms of antiretroviral treatment [e.g., nevirapine] used in the country are available, these can be used in applying the formula. When this is done, the values of these estimates should be recorded. The most common forms of treatment provided during the last 12 months should be noted.

Numerator
See above.

Denominator
See above.
**Interpretation/Strengths and limitations**

This indicator focuses on prevention of MTCT of HIV through increased provision of antiretroviral prophylaxis. Thus, the effect of breastfeeding on MTCT of HIV is ignored and the indicator may yield underestimates of true rates of MTCT in countries where long periods of breastfeeding are common. Similarly, in countries where other forms of prevention of MTCT of HIV (e.g., caesarean section) are widely practiced, the indicator will typically provide overestimates of MTCT. For these reasons, trends in this indicator may not reflect overall trends in MTCT of HIV.

This PMTCT indicator may provide a poor estimate for the proportion of HIV infected pregnant women provided with antiretroviral treatment (T) in circumstances where usage of antenatal clinic services is low.

Ratio of current school attendance among orphans to that of non-orphans aged 10 - 14

**Definition**
Ratio of current school attendance among orphans to that among non-orphans aged 10 – 14.

**Measurement tool**
Population-based survey such as DHS, Cluster surveys or other representative survey.

**Rationale/What it measures**
HIV is claiming the lives of ever-growing numbers of adults just when they are forming families and bringing up children. As a result, orphan prevalence is rising in many countries, while fewer relatives within the prime adult ages mean that orphaned children face an increasingly uncertain future. It is important therefore to monitor the extent to which AIDS support programmes succeed in securing the educational opportunities of orphaned children.

**How to measure it**
Ratio of the current school attendance rate of children aged 10 – 14 both of whose biological parents have died to the current school attendance rate of children aged 10 – 14 whose parents are both still alive and who currently live with at least one biological parent.

Orphans’ schools attendance [1]

**Numerator**
Number of children who have lost both parents and are still in school.

**Denominator**
Number of children who have lost both parents.

Non orphans’ school attendance 2

**Numerator**
Number of children, both of whose parents are still alive, who live with at least one parent and who are still in school.

**Denominator**
Number of children whose parents are both still alive and who live with at least one parent.

**Calculate the ratio of [1] to [2]**
Indicator scores are required for all children aged 10 – 14 years and for boys and girls, separately. Where possible, the indicator should also be calculated by single year of age [see section on interpretation].

The minimum number of orphaned 10-14-year-old children needed to calculate this indicator is 50 [see section on interpretation].
Interpretation/Strengths and limitations

The definitions of an orphan and non-orphan used here, i.e., child aged 10 – 14 years at last birthday, both of whose parents are still alive, have died respectively, are chosen so that the maximum effect of disadvantage resulting from orphanhood can be identified and tracked over time. The age range of 10 –14 years is used because younger orphans are more likely to have only recently lost their parents, so any detrimental effect on their education will have had little time to materialize. However, orphaned children are typically older than non-orphaned children because the parents of younger children have had less time to die and older children are more likely to have left school. Thus, the value of this indicator will tend to be slightly greater than 1, even when orphans suffer no relative disadvantage.

Typically, the data used to measure this indicator will be taken from household-based surveys. Children not recorded in such surveys, e.g., those living in institutions or on the street, generally are more disadvantaged and are more likely to be orphans. Thus, the indicator will tend to understate the relative disadvantage in educational attendance experienced by orphaned children.

Percent of people with advanced HIV infection receiving ART

Definition
Percent of people with advanced HIV infection receiving ART

Measurement tool
Program monitoring (Program reports+ modelling, HMIS)

Rationale/What it measures
As the HIV pandemic matures, increasing numbers of people are reaching advanced stages of HIV infection. Antiretroviral combination therapy has been shown to reduce mortality among those infected and efforts are being made to make it more affordable even within less developed countries. Antiretroviral combination therapy should be provided in conjunction with broader care and support services, including counselling for family caregivers.

Assesses progress in providing antiretroviral combination therapy to all people with advanced HIV infection.

How to measure it
The number of people (i.e., adults and children) with advanced HIV infection who currently receive antiretroviral combination therapy can be calculated as follows:
A: Number of people receiving treatment at start of year
B: Number of people who commenced treatment in the last 12 months
C: Number of people for whom treatment was terminated in the last 12 months (including those who died).

For the purpose of this indicator, the number of people with advanced HIV infection is taken to be 15% of the total number of people currently infected. The latter is estimated using the most recent national sentinel surveillance data.

Private-sector antiretroviral provision should be included in the calculation of the indicator wherever possible, and the extent of such provision should be recorded separately.

Interpretation/Strengths and limitations
The indicator permits monitoring of trends in coverage, but does not attempt to distinguish between different forms of antiretroviral therapy, or to measure the cost, quality, or effectiveness of treatment provided. These will each vary within and between countries and are liable to change over time.

The proportion of people with advanced stages of HIV infection will vary according to the stage of the HIV epidemic and the cumulative coverage and effectiveness of antiretroviral therapy among adults and children. The proportion currently recommended for use in calculating this indicator (15%) is a crude estimate and
may be subject to revision. This figure is particularly relevant in situations where the current coverage of antiretroviral combination therapy is low.

The degree of utilization of antiretroviral therapy will depend on cost relative to local incomes, service delivery infrastructure and quality, availability and uptake of VCT services, perceptions of effectiveness, and possible side effects of treatment.

Preventative antiretroviral therapy for the purpose of prevention of MTCT and post-exposure prophylaxis are not included in this indicator.

Percent of health care facilities that have the capacity and conditions to provide basic-level HIV testing and HIV/AIDS clinical management

Definition
Percentage of health facilities that have the capacity and conditions to provide basic HIV counselling and testing and to manage HIV/AIDS clinical services.
Capacity to provide basic HIV counselling and testing and health services is defined as:

a. a system for testing and providing results for HIV infection;
b. systems and qualified staff for pre- and post-test counselling;
c. specific health services relevant to HIV/AIDS, including resources and supplies for providing these services;
d. elements for preventing nosocomial infections; and
e. trained staff and resources providing basic interventions for prevention and treatment for people living with HIV/AIDS.

Measurement tool
This information should be collected through a health facility survey. The recommended tool is the piloted Service Provision Assessment covering all relevant service areas. HIV/AIDS service providers should also be interviewed.

Rationale/What it measures
Many facilities that provide general curative care are also providing services related to HIV/AIDS and are caring for people living with HIV/AIDS. This may occur in settings that have no specific HIV/AIDS program. For facilities that are providing these services, evaluating the degree to which capacity exists to carry out these HIV services is therefore important. The HIV/AIDS specific services and components identified and defined by this indicator are those that both support HIV/AIDS services and can reasonably be expected to exist in almost any health facility.

How to measure it
This information should be collected through a health facility survey in all relevant service areas. HIV/AIDS service providers should also be interviewed.

See Annex 1 of the UNAIDS C&S M&E Guide for details of the individual items identified for each of these, including detailed measurement instructions.

Numerator
1. Number of facilities at which the individual items for each service or item listed above exist
2. Number of facilities at which all components for each individual service or item [a, b, c, d or e] exist
3. Number of facilities at which all components for all individual services and items [a, b, c, d and e] exist
Denominator
For 1, the total number of health facilities surveyed
For 2 and 3, the total number of health facilities at which HIV/AIDS services in each of the areas identified in the definition are offered or relevant

Interpretation/Strengths and limitations
Although the objective is to determine the percentage of facilities that have all items within all service and item areas [a, b, c, d and e], few, if any, facilities will have this level of services. In many settings, facilities do not have all items for each service. The specific items to support each service should therefore be presented individually.

This indicator does not provide individual information for voluntary counselling and testing services or for services for preventing the mother-to-child transmission of HIV except if: 1) the services are integrated within the health facility; and 2) the components of these services are relevant to the areas assessed.

The list of components (for Part a) also excludes facilities that only conduct or refer for pre-employment HIV tests, excludes testing blood prior to transfusion, and excludes facilities that refer people living with HIV/AIDS to another facility for assessment and testing if the referral facility is responsible for further services.

Source: WHO C&S 2004
Percent of health care facilities that have the capacity and conditions to provide advanced-level HIV/AIDS care and support services, including provision of ART

Definition
Capacity to provide advanced HIV/AIDS care is defined as:

a. systems and items to support the management of opportunistic infections and the provision of palliative care [symptomatic treatment] for the advanced care of people living with HIV/AIDS;
b. systems and items to support advanced services for the care of people living with HIV/AIDS;
c. systems and items to support antiretroviral combination therapy [including security measures for the ARVs];
d. conditions to provide advanced inpatient care for people living with HIV/AIDS;
e. conditions to support home-care services; and post-exposure prophylaxis.

Measurement tool
This information should be collected through a health facility survey with observation in all relevant service areas and interviews of HIV/AIDS service providers would also be needed.

Rationale/What it measures
This indicator measures the availability of advanced services specific to people living with HIV/AIDS. It is assumed that the services and items measured in this indicator require substantial input and personnel training beyond what is routine for most health systems.

How to measure it
The specific items for each service should be presented individually and at a first level of aggregation [all components of each service or item]. When a reasonable proportion of facilities begin to have all first-level aggregated components, a second-level aggregation can be presented when appropriate. See Annex 1 of the WHO C&S 2004 for details of the individual items identified for each of these, including detailed measurement instructions.

Numerator
1. Number of facilities at which the individual items for each service or item listed above exist.
2. Number of facilities at which all components for each individual service or item [a, b, c, d, e, or f] exist.
3. Number of facilities at which all components for all individual services and items [a, b, c, d, e, and f] exist.

Denominator
For 1, the total number of health facilities surveyed.
For 2 and 3, the total number of health facilities at which HIV/AIDS services in each of the areas identified in the definition are offered or relevant.
**Interpretation/Strengths and limitations**

This indicator examines advanced HIV/AIDS services among all health facilities. In some settings, facilities will not have all items for each item or component, and countries may have different strategies for providing select advanced services at only certain levels of the health care system (that is, referral hospitals may offer a wider range of advanced care than health centres). Although this indicator does not stratify by level of health care facility, managers of national AIDS programs can analyse this information if desired.

Source: WHO C&S 2004
Percent of adults aged 18–59 who were chronically ill for 3 or more months during the past year whose households received free basic external support in caring for the ill person

Definition
Percentage of adults aged 18–59 who have been chronically ill for 3 or more months in the past 12 months, including those ill for 3 or more months before death, whose households received, free of user charges, basic external support in caring for chronically ill people, including health, psychological, or emotional, and other social and material support.

External support for chronically ill adults is defined as:
- Medical support;
- Emotional and psychological: counselling from a trained counsellor, companionship, and emotional or spiritual support;
- Material including socio-economic (clothing, extra food or financial support); and
- Other social support or instrumental (help with household work, training for a caregiver or legal services).

External support is defined here as help free of user charges coming from a source other than friends, family or neighbours unless they are working for a community-based group or organization. The definition of chronically ill is defined here as bed-ridden, down, unable to function in one’s normal daily role.

Measurement tool
Population-based survey. In low prevalence settings a special study of networks of PLWHA, facility-based samples of PLWHA or other targeted sampling may be optimal.

Rationale/What it measures
This indicator attempts to quantify the extent of professional/institutional support services.

How to measure it
The following methods are recommended:
- A population-based household survey can be used in high-prevalence settings. As part of a household survey, household rosters can be used to identify all eligible chronically ill people aged 15–59. For each household with a chronically ill member, a series of questions is asked about the types and frequency of support received and primary source of the help.
- A special study: the survey tool may be used in low-prevalence settings or targeted populations with similar but adapted methods sampling networks of people living with HIV/AIDS and/or recipients of services from care and support programs.

Data should be analysed and reported by gender and age categories when sample size allows (15–24, 25–39, and 40+ years).
Each component on type of support will also be reported on separately, i.e., percentage whose households received medical support, percentage whose households received emotional support, and so on.

**Numerator**
Women and men aged 18–59 who have been ill for 3 or more months during the past 12 months and whose household received the following support:

1. Medical support at least once a month during illness  
   AND
2. Emotional support in the last 30 days  
   AND
3. Material support in the last 30 days  
   AND
4. Social support in the last 30 days.

**OR**
Women and men who died in the past 12 months, age 18–59 when they died, and who had been chronically ill for 3 months before death and whose household received the support listed above.

**Denominator**
All adults aged 18–59 who were ill for 3 or more months during the past 12 months, including those ill for 3 or more months before death.

**Interpretation/Strengths and limitations**
Household-based samples of chronically ill people are not nationally representative of all chronically ill people because they exclude those who are hospitalised, institutionalised, or homeless. As a result, the proportion of the population “missed” varies. Other targeted sampling among groups such as facility clients, home-based care recipients, or PLWHA network members (as discussed above in “How To Measure It”) should be done to address this problem.

Source: Adapted from WHO C&S 2004
Percent of orphans and vulnerable children under 18 whose households have received, free of user charges, basic external support in caring for the child

Definition
Percent of orphans and vulnerable children under 18 living in a household whose households have received, free of user charges, basic external support in caring for the child. Orphan is defined as a child under 18 who has lost either a mother or father or both. A vulnerable child is defined as a child with a chronically ill parent (mother or father).

Measurement tool
Population-based survey

Rationale/What it measures
This indicator measures support coming from a source other than friends, family, or neighbours [unless they are working for a community-based group or organization] given free of user charges to households with orphans and vulnerable children.

How to measure it
As part of a household survey, household rosters can be used to identify all eligible orphans and vulnerable children [under 18 years of age]. For each household with orphans and vulnerable children, a series of questions is asked about the types and frequency of support received and the primary source of the help.

The following methods are recommended:
• A population-based household survey can be used in high-prevalence settings. As part of a household survey, household rosters can be used to identify all eligible chronically ill people 15–59 years old. For each household with a chronically ill member, a series of questions is asked about the types and frequency of support received and primary source of the help.

• A special study: the survey tool may be used in low-prevalence settings or targeted populations with similar but adapted methods sampling networks of people living with HIV/AIDS and/or recipients of services from OVC and/or care and support programs.

Data should be analysed and reported by age (0–5, 6–9, 10–14, and 15–17 years) and gender when possible. Depending on the epidemiological situation and available resources, program managers may decide to aggregate age data into larger ranges.

Each component of type of support will also be reported on separately, i.e., percentage whose households received medical support, percentage whose households received emotional support, and so on.

Orphans are a very mobile population. Those most in need of care may be in child-headed households that do not even qualify for inclusion in a household survey. Street children and others who live outside regular
households will also be missed; in some urban areas these children may make up a substantial fraction of orphans in greatest need of care.

**Numerator**
Number of orphans and vulnerable children residing in households that received:

- a. health care support within the past 12 months;
- b. emotional support within the past 3 months;
- c. school-related assistance within the past 12 months;
- d. other social support, including material support, within the past 3 months; and
- e. all four types of support.

Orphan (at least one dead parent) AND/OR vulnerable child (at least one chronically ill parent) whose household has received:

1. Medical support within the last 12 months;
   
   AND
2. Emotional/psychological support within the last 3 months
   
   AND
3. Material support within the last 3 months
   
   AND
4. Social support within the last 3 months
   
   AND
5. School-related assistance within the past 12 months.

**Denominator**

ORPHANS: All children under 18 who have at least one dead parent (mother or father)

AND VULNERABLE CHILDREN: All children under 18 who have a chronically ill parent (mother or father) defined as a parent who has been very sick for 3 or more months during the last 12 months, regardless of whether or not the ill parent lives in the household.

**Interpretation/Strengths and limitations**
The greatest limitation of this indicator is its inability to distinguish whether needs are being met. Not all households caring for orphans need help. The needs of households with multiple orphans may be greater than those with a single orphan, but this will not be captured in this measure. Unfortunately, needs assessment is beyond the scope of a regular population-based survey. Experience shows that response rates are very high when people are asked whether they need extra support, though more qualitative work distinguishes large differences in actual coping received emotional support, and so on.

Orphans are a very mobile population. Those most in need of care may be in child-headed households that do not even qualify for inclusion in a household survey. Street children and others who live outside regular households will also be missed; in some urban areas these children may make up a substantial fraction of orphans in greatest need of care.

*Source: Adapted from UNAIDS 2000, WHO C&S 2004, GFATM 2004*
**Percentage of people living with AIDS still alive at 6, 12, and 24 months after initiation of ART**

**Definition**
Percentage of people living with HIV/AIDS still alive at 6, 12, and 24 months after initiation of ART.

**Measurement tool**
Patient records/cohort analysis.

**Rationale/What it measures**
One of the goals of any ART program should be to increase survival among infected individuals. This indicator measures the degree to which treatment can prolong a person’s life by assessing how many individuals survived after 6, 12, and 24 months of receiving treatment.

**How to measure it**
Information on survival beyond specific points in time can be collected in patient registers. This indicator will require that a cohort of patients be followed up.

Data should be analysed by sex and age.

**Numerator**
Number of individuals living with HIV/AIDS still alive after initiating ART after 6, 12, and 24 months.

**Denominator**
Number of individuals living with HIV/AIDS initiating ART at a given point in time

**Interpretation/Strengths and limitations**
The strengths of this indicator lay in the ease of data collection, as any ART program should monitor patients on treatment and determine the number of individuals who survive beyond specific periods in time. For some patients, follow-up information may not be available as a result of migration, complete treatment failure, or even death. Programs may deal with this loss by including only those individuals for whom they have full information in the numerator and denominator.

Interpretation of trends in this indicator is enhanced when information on health status at treatment initiation is also available. (Health outcomes, including survival rate, quality of life measures, weight gain etc.) It should be noted that start-up ART program may have higher mortality due to enrollment of the sickest PLWHA. Over time, this effect will level out. Clinical staging or mean CD4 count is helpful information for interpretation of trends.

Source: *WHO 3 by 5 (draft 2004)*
Percent of schools with teachers who have been trained in life skills based education and who taught it during the last academic year

Definition
Percentage of schools with teachers who have been trained in life-skills-based HIV/AIDS education and who taught it during the last academic year.

Measurement tool
School-based or education programme review.

Rationale/What it measures
School-based HIV prevention programmes have the potential to reach vast numbers of young people. Those programmes that offer participatory and interactive life-skills training on individual, social and environmental factors that affect the risks of HIV transmission have proved to be more effective in bringing about behavioural change – delayed age at first sex, condom use, reduced number of sexual partners, etc. – than more formal approaches that concentrate on providing information.

How to measure it
Principals/heads of a nationally representative sample of schools (to include both private and public schools) are briefed on the meaning of life-skills-based HIV/AIDS education and are then asked the following questions:

1. Does your school have at least one qualified teacher who has received training in participatory life-skills-based HIV/AIDS education in the last five years?
2. If the answer to question 1 is “yes”. Did this person teach life-skills-based HIV/AIDS education on a regular basis to each grade in your school throughout the last academic year?

The teacher training must have included time dedicated to mastering facilitation of participatory learning experiences that aim to develop knowledge, positive attitudes and skills that assist young people in maintaining safe lifestyles.

Numerator
Number of schools with staff members trained in, and regularly teaching, life-skills-based HIV/AIDS education

Denominator
Number of schools surveyed

Interpretation/Strengths and limitations
It is important that life-skills-based HIV/AIDS education be initiated in the early grades of primary schools and then continued throughout schooling, with content and methods being adapted to the age and experience
of the students. Where schools provide both primary and secondary education, at least one teacher should have been trained to teach life-skills-based HIV/AIDS education at each of these levels. This indicator is a measure of coverage.

Source: UNGASS 2004)
AIDS Program Effort Index

Definition
The average score given to a national program by a defined group of knowledgeable individuals asked about progress in over 90 individual areas of programming, grouped into 10 major components.

Measurement tools
The AIDS Program Effort Index (API) questionnaire and protocol.

Rationale/What it measures
The AIDS Program Effort Index is a composite index designed to measure political commitment and program effort in the areas of HIV prevention and care. It tries to capture many of the inputs and outputs of a national HIV/AIDS program. The score is made up of 10 main components of an effective national response: political support, policy formulation, organizational structure, program resources, evaluation and research, legal and regulatory aspects, human rights, prevention programs, care programs and service availability.

How to measure it
The API uses key informants from a designated mix of institutions to give opinions about central areas of commitment and programming, compiling an index out of scores given in various areas. The score, which is calculated as a percentage with zero indicating no program effort and 100 indicating maximum effort, may be converted into a grade to minimize informant variation. Suggested grades range from very weak and weak through moderate and strong to very strong, depending on the range in which the numerical scores fall.

Interpretation/Strengths and limitations
The major concern surrounding the API is its subjectivity and its reliability. The outcome depends entirely on the choice of informants and informants will likely change from year to year. Since the indicator is still under development, the choice of informants has not yet been standardized.

Questions have also been raised about the utility of a single composite score, in which improvements in some areas may be masked by deterioration in other areas. For diagnostic as well as monitoring purposes, it may be more useful simply to publish the indices separately by category. The separate category scores may stand alone as indicators, although for several areas of program effort this document proposes alternatives which are based on measured parameters rather than expert opinion and may therefore be more useful in tracking trends over time.

One area in which the API process may yield a particularly useful indicator is in the area of policy formulation (Section 20 of the API protocol).

Source: UNAIDS, 2000, UNGASS 2002
**National Composite Policy Index**

**Definition**
The average score given to national level HIV/AIDS policies and strategies grouped into four areas: strategic plan, prevention, human rights, and care and support.

**Measurement tool**
Special study (Country assessment questionnaire -see Appendix 3 of UNGASS).

**Rationale/What it measures**
This indicator allows assessment of progress in the development of national-level HIV/AIDS policies and strategies.

**How to measure it**
The composite index covers four broad areas of policy:

- A. Strategic plan
- B. Prevention
- C. Human rights
- D. Care and support

A number of specific policy indicators have been identified for each of these policy areas (see list on page 22). A separate index is calculated for each policy area by adding up the scores (yes = 1, no = 0) for the relevant specific policy indicators and calculating the overall percentage score. The composite index is calculated by taking the average of the scores for the four components.

Where appropriate, the score for a specific policy indicator should be assessed with reference to the standards and criteria provided (see Appendix 3 of UNGASS).

**Interpretation/Strengths and limitations**
The simple quantitative nature of the National Composite Policy Index means that it does not give information on the effectiveness of national policies and strategies. Therefore, a separate AIDS Programme Effort Survey will be conducted in selected countries to assess the effectiveness of national policies and strategies.

Source: UNGASS 2002
Spending on HIV/AIDS programs

Definition
The amount of money allocated in national accounts for spending on HIV prevention and care programmes.

Measurement tool
Special study [UNAIDS/UNFPA/NIDI survey on financial resource flows]

Rationale/What it measures
This indicator allows monitoring of the flow of national funding for HIV/AIDS as a measure of national government’s economic commitment to fight HIV/AIDS

How to measure it
Survey of national government expenditure on HIV/AIDS programmes. The costs of any multilateral or bilateral international donor-funded government programmes should be excluded. Similarly, all local NGO programmes should be excluded, except for programmes [or parts of programmes] that are funded by the national government.

Allocated national funds comprise expenditure on the following four categories of programme, totals for each of which should be specified separately:
1. STD control activities
2. HIV prevention
3. HIV/AIDS clinical care and treatment
4. HIV/AIDS impact mitigation

Interpretation/Strengths and limitations
This indicator is a measure of economic commitment to enhancing the national response to HIV/AIDS. It is not intended to be used as a measure of resource availability.

In larger and more decentralized countries, national expenditures at lower levels may not be captured fully in a centrally-administered survey so the total amount of national expenditure on combating HIV/AIDS may be underreported

Source: Adapted from UNGASS 2002
Percentage of large enterprises/companies that have HIV/AIDS workplace policies and programmes

**Definition**
Percentage of transnational companies that are present in developing countries and that have HIV/AIDS workplace policies and programmes.

**Measurement tool**
Desk review and key informant interviews.

**Rationale/What it measures**
To assess progress in implementing workplace policies and programmes to combat HIV/AIDS in transnational companies.

**How to measure it**
Companies are asked to state whether they currently implement personnel policies and procedures that cover, as a minimum, all of the following aspects:

1. Prevention of stigmatization and discrimination on the basis of HIV infection status in: (a) staff recruitment and promotion; and (b) employment, sickness and termination benefits.

2. Workplace-based HIV/AIDS prevention, control and care programmes that cover: (a) the basic facts on HIV/AIDS; (b) specific work-related HIV transmission hazards and safeguards; (c) condom promotion; (d) voluntary counselling and testing (VCT); (e) sexually transmitted infection (STI) diagnosis and treatment; and (f) provision of HIV/AIDS-related drugs.

**Numerator**
Number of employers with HIV/AIDS policies and regulations that meet all of the above criteria.

**Denominator**
Number of employers surveyed.

Copies of written personnel policies and regulations should be obtained and assessed wherever possible.

Source: UNGASS 2004
Percent of the general population with accepting attitudes toward PLWHA

Definition
The percent of people expressing accepting attitudes towards people with HIV, of all people surveyed aged 15-49.

Measurement tool
UNAIDS general population survey; DHS/AIS; BSS (adult and youth).

Rationale/What it measures
This is an indicator based on answers to a series of hypothetical questions about men and women with HIV. It reflects what people are prepared to say they feel or would do when confronted with various situations involving people living with HIV.

How to measure it
Respondents in a general population survey are asked a series of questions about people with HIV, as follows:

◊ If a member of your family became sick with the AIDS virus, would you be willing to care for him or her in your household?
◊ If you knew that a shopkeeper or food seller had the AIDS virus, would you buy fresh vegetables from them?
◊ If a female teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in school?
◊ If a member of your family became infected with the AIDS virus, would you want it to remain a secret?

Only a respondent who reports an accepting or supportive attitude on all four of these questions enters the numerator. The denominator is all people surveyed who have heard of HIV/AIDS.

Numerator
Number of women and men who report an accepting attitude on all four of these questions.

Denominator
Number of all women and men aged 15–49 surveyed who have heard of HIV/AIDS.

Interpretation/Strengths and limitations
Methodologically, this is a relatively easy way to construct an indicator of attitudes to people with HIV. A low score on the indicator is a fairly sound indication of high levels of stigma, and for that reason alone it is worth measuring.
There are, however, difficulties in interpreting indicators based on hypothetical questions, and a high score on the indicator is harder to understand. It could mean there is little real stigma attached to HIV. Or it could mean that people know they should not discriminate, and therefore report accepting attitudes. This may not change their behaviour, which may continue to be discriminatory towards people with HIV. Changes in the indicator could therefore reflect a reduction in stigma or simply a growing awareness that it is not nice to own up to one’s prejudices. That in itself may, however, constitute the first step in program success. High scores may also reflect the respondent’s limited personal experience with someone who is HIV-infected.

This indicator is similar to an earlier measure developed by WHO, but questions have been changed following field testing to better reflect situations in which people with HIV actually suffer from stigma. Field tests revealed that responses are greatly affected by the exact wording of the indicator. When the gender of the teacher was not specified, for example, one country registered very high levels of “discriminatory” attitudes on that question, for example. Further investigation showed that the negative attitudes were related to recent news reports of male teachers infecting female pupils with HIV.

On-going pilot testing of indicators of stigma and discrimination have identified two additional domains, shame and blame, that should be addressed by future versions of this indicator. Questions and indicators to address shame and blame are currently being pilot tested. These findings should be considered in future updates to this indicator.

Source: UNAIDS, 2000

Adaptations to this indicator are currently being pilot tested by the USAID Stigma and Discrimination Working Group.
Percent of health care facilities that protect against discrimination  
(e.g., HIV tests with informed consent, persons living with HIV/AIDS not segregated, etc.)

**Definition**
The percent of health care facilities that protect against discrimination against PLWHA and those seeking HIV tests.

**Measurement Tool**
Health facility survey.

**Rationale/What it measures**
This indicator measures the policies and practices of health care facilities that reflect the level of discrimination and stigmatisation felt by PLWHA and those seeking HIV tests in seeking care.

**How to measure it**
This indicator is designed to be integrated into the monitoring and evaluation of any health care facility-based HIV/AIDS program, including mother-to-child transmission, sexually transmitted infection treatment, care and support, voluntary counselling and testing, etc. The following are possible items to be included in the facility survey:

◊ Care for persons living with HIV/AIDS is not denied or delayed, or they are not referred elsewhere for services available within the facility.
◊ Care for patients awaiting HIV tests results is not denied or delayed, or they are not referred elsewhere for services available within the facility.
◊ Persons living with HIV/AIDS are not segregated or isolated.
◊ Care for persons living with HIV/AIDS is of the same quality as the care provided to other patients.
◊ Confidentiality of HIV status is respected.

Data should be disaggregated by type and level of facility (e.g., hospital and clinic).

**Interpretation/Strengths and limitations:**
This indicator is newly developed and has yet to be thoroughly tested in diverse settings. It is anticipated that health facilities at different levels of the health care system will have different policies and procedures in providing care to those who are HIV infected, and to those seeking HIV testing.

In some settings this indicator will reflect the level of training of staff in providing HIV/AIDS related care, and in that sense this indicator will overlap with the indicator “Health facilities with the capacity to deliver appropriate care to HIV-infected patients” presented previously. In other countries where care for patients infected with HIV is highly segregated this indicator will only measure the de facto policy and not the facility-level practice of discrimination.

Further development and refinement of this indicator is expected.

*Source: Adapted from: Expanded Response Guide to Core Indicators for Monitoring and Reporting on HIV/AIDS Programs. (USAID, 2002)*
Socio-Economic Impact

This set of indicators measures the effectiveness of programmes/interventions for HIV/AIDS

The Impact of HIV/AIDS on key socio-economic variables

Definition
The key social and economic indicators that impact on/are impacted on by HIV/AIDS

Measurement Tools
Behavioural Surveillance Surveys (BSS)/ Survey of Living Conditions (SLC)/ Household Budgetary Surveys and other special surveys.

Rationale/What it measures?
These indicators highlight the key social and economic variables that are linked with the epidemic, and provide some insights into the nature, direction and strength of the relationship between these variables and HIV/AIDS. The linkages between HIV/AIDS and variables such as poverty, unemployment and equity are well documented. This process allows one to quantify and benchmark this relationship. This will in turn provide the basis for the future assessments of the impact of programme interventions.

How to measure it
These indicators will be developed by analysis of the social-economic profile of the PLWHA as captured in the BSS, SLC and other related studies. It also allows for analysis of the social and economic profiles of the other high risk groups as a means of tracking the extent to which these variables may act as push factors.

Interpretation/Strengths and Weaknesses
While these social and economic variables are well recognized as being linked to the epidemic, due to the inter-relatedness between these factors, evaluating the effects and impact on individual variables may prove challenging. Secondly, a large part of the success of these indicators hinges on the response rate to the questionnaire in general, and in particular the questions that have traditionally proved to be difficult in getting valid responses to.

Source: Health Economics Unit, University of the West Indies, St. Augustine, Trinidad & Tobago.
The Impact of HIV/AIDS on Key Macroeconomic Indicators

Definitions
The Impact of HIV/AIDS on Key Macroeconomic Indicators

Measurement Tools
System for HIV/AIDS Programme Evaluation (SHAPE – Health Economics Unit)
AIDS Impact Model (AIM – Futures Group)
AVERT (Family Health International)

Rationale/What it Measures?
This indicator measures the impact of HIV/AIDS on key macroeconomic variables; savings, investment and Gross Domestic Product. These models allow for projections to be made on the impact of these key indicators. These projections can be a strong advocacy tool to be used in getting the non-health sectors involved in the national response.

How to Measure it
The use of these models will allow for the inputting of key parameters which will in turn produce results which can show:

1. The projected incidence/prevalence of HIV/AIDS in a specified time period
2. The impact of the AIDS epidemic on savings, investment and GDP.
3. The impact on HIV expenditure.
The Impact of HIV/AIDS on Key Health Outcomes

Measurement Tools
Effectiveness analyses conducted at the level of the individual, business, health care provider and state (government)

Rationale/What it measures
These studies provide the basis for the systematic assessment of key programmes and their impact on key health outcomes. These studies will allow for a more effective evaluation of existing strategies and therefore provide a more scientific framework by which policy makers can engage in decision-making.
These studies provide answers to the following key questions:

1. Does the programme/intervention work? – (measured in terms of years of life lost/saved, disability life years lost/saved, quality of life years lost/saved)
2. What does the programme/intervention cost? (measured via standard costing methodologies)
3. How do the benefits compare with the costs {measured by way of cost-effectiveness and cost-benefit analyses}

How to measure it
These indicators are developed through the conduct of secondary (desk) research. This typically involves the review of records which detail the resources utilized in the implementation of the programmes/interventions. These will include fixed capital as well as variable capital, including materials and labour. These items are costed and adjusted for depreciation and inflation. These adjustments will facilitate the assessment of the costs and outcome of the programmes in instances where they were done in different time frames. From this framework the following measures can be achieved:

• Cost Analyses – this allows for the identification of the major cost drivers in the implementation of the programme/intervention;
• Cost-Benefit Analysis (CBA) – measures the impact of the implementation in monetary terms and compares it with the costs of the programme;
• Cost-Effectiveness Analysis – provides the basis for the comparison of alternative interventions and looks at the cost per unit of health outcome;
• Cost-Utility Analysis – is a special type of cost-effectiveness analysis in which the benefits are measured in standardized units such as “Quality Adjusted Life Years” (QALYs), “Disability Adjusted Life Years” (DALYs), and “Years of Life Lost” (YLL)

Numerator
Cost of the programme/intervention.
**Denominator**

This will vary depending on the evaluation technique that is utilized ranging from benefits measured in dollar values to the standardized QALY, DALY or YLL outcome measures.

**Interpretation/Strengths and Limitations**

These measurement tools provide a sound technical basis for informing and guiding decisions at the programme/policy level. It is particularly applicable for programmes in HIV/AIDS where the inputs and outcome measures (numerator and denominator) are not static and are constantly changing with development in technology as well as in the profile of the epidemic.

These measures are however best placed in a context that allows for the values and preferences of the stakeholders to be considered. Additionally, the proper implementation of these techniques involves the use of discounting rate, the valuation of life and discounting future benefits, all techniques that can at times be very contentious.

Source: *Health Economics Unit, University of the West Indies, St. Augustine, Trinidad & Tobago.*
APPENDIX
LIST OF MONITORING AND EVALUATION RESOURCES

General Resources on Monitoring and Evaluation:


Indicator Guidance


Specific Tools and Methodological Guidance:

Behaviour Change Communication:

3. *Behavioural Surveillance Surveys: Guidelines for Repeated Behavioural Surveys in Populations at Risk for HIV* (FHI, 2000). 358 pages: Chapter 1: Why Behavioural Surveillance? Chapter 2 Setting up BSS: Steps in the process, Chapter 3 Choosing population groups, Chapter 4 Sampling approaches, Chapter 5 Weighting in multi-stage sampling, Chapter 6 Adapting and using questionnaires, Chapter 7 Analysis and interpretation of results, Chapter 8 Using the data collected to improve HIV prevention efforts, Chapter 9 Indicators, Suggested Reading, Appendix 1 Questionnaires (including for adult target groups aged 15-49, for unmarried male and female youth target groups, for female sex workers (FSWs), for men who have sex with men (MSM), for injecting drug users (IDUs)), Appendix 2 Interviewer guidelines, Appendix 3 Working examples of sampling approaches, Appendix 4 Field work forms, Appendix 5 Statistical tests.


5. *FHI BSS Questionnaires (for adults, youth, fsw, idu).* 65-75 questions. (included in #6)

6. *DHS AIDS Module, AIDS Indicator Survey, MEASURE DHS+*


Condom Programming


Voluntary Counseling and Testing

11. *Tools for evaluating HIV voluntary counseling and testing.* (UNAIDS, March, 2000). 56 pages: Introduction, Section 1: National preparedness and commitment for VCT implementation (including Tool for evaluation of the National preparedness for VCT implementation respondents), Section 2: Operational sites and services (including: Tool for VCT site evaluation (logistic considerations & coverage), Section 3. Counselors’ requirements and satisfaction (including Tool for evaluation of counselor selection, training and support), Section 4. Counseling evaluation (including Tool for evaluation of counseling skills & Tool for evaluation of counseling content), Section 5. Counseling for special needs, Section 6. “Group counseling/group education” (including tool for evaluating group work), Section 7. Client satisfaction (including Tool for evaluation of client satisfaction), Section 8: Cost effectiveness (including Tool for estimating cost & evaluation of cost effectiveness of VCT).

12. *Horizons Program—Developing High-Quality VCT Service Delivery Strategies for Youth Exit interview questionnaire.*


Blood Safety


Care, Support, and Treatment


Training and Capacity Building

22. HIV/AIDS Networking Guide: A comprehensive resource for individuals and organizations who wish to build, strengthen, or sustain a network. (ICASO, 1997). 54 pages: Chapter 1 - Networking for a More Effective Response to HIV and AIDS; Chapter 2 - Networking: What Makes it Work?; Chapter 3 - Change and Challenge; Chapter 4 - Other Networking Issues; Chapter 5 - Governing Body and Staff Issues in Formalized Networks; Chapter 6 - Lessons Learned About Networking.

Advocacy and Policy

23. PACT HIV/AIDS Advocacy Tool Description. 3 pages: Purpose, Description, Strengths and Limitations, Time and Resources, Anecdotes.
1. **Advocacy in Action: A Toolkit to Support NGOs and CBOs Responding to HIV/AIDS.** (International AIDS Alliance/International Council of AIDS Services Organizations). 99 pages: Introduction to the toolkit, Section 1: Introducing advocacy, Section 2: Planning and implementing advocacy work (including: implement, monitor, and evaluate), Section 3: Including advocacy in an organization's work, Section 4: 'Advocacy in Action' Cards—for developing practical advocacy skills, Section 5: Other advocacy resources.


3. **The AIDS Program Effort Index (API): Results from the Field Test** (TFGI, August, 1999). 49 pages, includes questionnaire.

4. **The AIDS Program Effort Index (API): Updated questionnaire** (TFGI, 2002). 100 questions: Section I: Political Support; Section II: Policy Formulation; Section III: Organizational Structure; Section IV: Program Resources; Section V: Evaluation, Monitoring and Research; Section VI: Legal and Regulatory Environment; Section VII: Human Rights; Section VIII: Prevention Programs; Section IX: Care Programs; Section X: Service Availability; Section XI: United Nations Role.

**Human Rights, Stigma, and Discrimination**


9. *Horizons Program—Improving the Hospital Environment for HIV Positive Clients in India Counselor in-depth interview. Client in-depth interview. Doctor in-depth interview.

**Socio-economic Impact**


(Note: * Indicates electronic resources available but not yet on CD)
**Additional on-line resources:**

**Behaviour Change Communication**


**VCT**


External website link to: C & T 6 month instrument (http://www.caps.ucsf.edu/projects/c&t6month.html).

External website link to: C & T interview manual (http://www.caps.ucsf.edu/projects/c&tinterview.html).

**Care, Support and Treatment**


Horizons Program - PLHA Involvement in Community-based Service Delivery (Summary http://www.popcouncil.org/horizons/aidsquest/summaries/sshorizonsplhainvolvement.html).

PLHA clients in-depth interview protocols (Spanish/Español) PDF Word http://www.popcouncil.org/horizons/aidsquest/instruments/Entrevistas PVVIHbeneficiarios03.rtf

Members of community-based organizations (CBOs) in-depth interview protocols (Spanish/Español) PDF Word http://www.popcouncil.org/horizons/aidsquest/instruments/Entrevista Miembros03.rtf


Household interview instrument PDF Word http://www.popcouncil.org/horizons/AIDSquest/surveys/Durban_youth/HH.FR.0831.doc

**Footnotes**

1 Core indicators, that reflect the goals and objectives of the National Strategic Plan and others including UNGASS.

2 Readers should also make reference to the Global Fund’s Multipartner Monitoring & Evaluation Toolkit, published in June 2004, available on accompanying CD which makes use of an expanded list of categories for service delivery areas.