

**PREPARING FOR MICROBICIDES ACCESS:  
A SYNTHESIS REPORT**

*Based on six country profiles (India, Nigeria, Rwanda, South Africa, Tanzania and Zambia)*

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This project is funded by the European Union. The content of this publication is the sole responsibility of Constella Futures and can in no way be taken to reflect the views of the European Union.

## PREFACE

With partial funding from the European Community, the International Partnership for Microbicides (IPM) commissioned a series of country profiles that compile information on demography, HIV and health systems in countries hosting or planning to host microbicide trials. They are intended to provide basic overviews that can inform the development of more detailed policy research agendas and support future planning for the introduction of microbicides. They do not set out detailed microbicide introduction strategies or address product specific challenges.

Constella Futures was commissioned to prepare profiles for India, Nigeria, Rwanda and Tanzania. Studies were also conducted separately in South Africa and Zambia. All reports in the series are available at [www.ipm-microbicides.org](http://www.ipm-microbicides.org).

**The recommendations made in the reports are those of the authors and do not necessarily reflect IPM's views, positions or plans.**

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### **REPORTS IN THIS SERIES**

Prepared by Constella Futures:

- India Country Profile
- Nigeria Country Profile
- Rwanda Country Profile
- Tanzania Country Profile
- Preparing for Microbicides Access: A Synthesis Report

Prepared by Jo Heslop (data are comparable to Constella Futures reports):

- South Africa Country Profile
- Zambia Country Profile

Prepared by Health and Development Africa:

- A Country Preparedness Assessment of Microbicide Access and Use in South Africa

Prepared by JHPIEGO/ Zambia

- Country Preparedness Assessment – Zambia: Prospective Introduction of a Microbicide to Prevent or Reduce HIV Transmission

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## INTRODUCTION

This synthesis report brings together information from a series of country profiles commissioned by the International Partnership for Microbicides (IPM) to build a background on which to begin to examine microbicide access at the country level. The objectives of the project are to look at country settings and begin to identify mechanisms, critical pathways and key procedures to accelerate the availability of microbicides in developing countries.

Country profiles were prepared by Constella Futures for **India, Nigeria, Rwanda and Tanzania**. The team built the profiles as desk-based research using standard data sources; in-country consultants assisted the researchers by interviewing stakeholders and filling important gaps unavailable in the grey literature. In addition to the country profiles, two meetings were held. A meeting in London brought together international experts to discuss microbicides access, and a second meeting in Nairobi brought together the in-country consultants from Nigeria, Rwanda and Tanzania.

Reports have also been compiled for **South Africa and Zambia**. The entire series is available at [www.ipm-microbicides.org](http://www.ipm-microbicides.org).

This synthesis report includes summary data from country profiles for India, Nigeria, Rwanda and Tanzania prepared by Constella Futures, and country profiles for South Africa and Zambia prepared by Jo Heslop. Appendix 1 contains data from the country profiles in tabular form. Appendix 2 contains sexual behaviour data for the six countries. Unless noted otherwise, data have been obtained from the same source in order to facilitate comparison across countries.

## COMPARATIVE SUMMARY OF COUNTRY PROFILE DATA

### DEMOGRAPHIC

India, with over 1.1 billion people, is the second-most populous country in the world. Nigeria, with 134 million people, is the most populous country in Africa. South Africa and Tanzania have populations of 47 million and 38 million, respectively. Zambia and Rwanda are significantly smaller, with populations of approximately 11 million and nine million, respectively.

South Africa is several times wealthier than the other countries surveyed, with a **GDP** per capita of US\$2,376. By comparison, India and Nigeria, the next most-wealthy countries, have per capita GDPs of US\$484 and US\$407, respectively. Zambia's GDP per capita is US\$346, whereas Tanzania and

Rwanda are the poorest of the countries surveyed, with GDPs per capita of US\$267 and US\$207, respectively.

**Life expectancy** in India (63 years) is much higher than in any of the African countries (37-47 years). Total fertility, or the average number of children a woman can expect to bear in her lifetime, is under three in India and South Africa, and close to six in the other countries. Median age at first sexual encounter and first marriage is between 16 and 18 for all the countries, except Rwanda (where it is between 20 and 21) and South Africa. South Africa is the only country where the median age of sexual debut (18.4) is significantly lower than age at first marriage (24.2). The intervening years coincide with the highest rates of new infection among women.

**Female literacy rates** are higher in the African countries and the ratio of literate women to literate men is close to, or greater than, 100 percent. In India, this ratio is lower, at 81 percent. The proportion of women with access to media is highly variable; but as could be expected, it is closely correlated to the country's per-capita income. In South Africa the figure is 30 percent, whereas in Rwanda and Tanzania it is less than two percent. This figure is slightly higher in India, Nigeria and Zambia (between seven and 12 percent).

**HIV trends.** South Africa has the highest **HIV prevalence rate**, at 18.8 percent. Zambia's prevalence rate is 17 percent and Tanzania's is 6.5. Nigeria and Rwanda have HIV prevalence rates of between three and four percent. India's prevalence rate is just below one percent, but due to its large population, this translates into 5.7 million people with HIV - the largest for any country in the world, according to UNAIDS. South Africa, with 5.5 million HIV-positive people, and Nigeria, with close to three million, have the second- and third- largest HIV-positive populations, respectively. Tanzania and Rwanda have HIV-positive populations of 1.4 million and 1.1 million, respectively, and Rwanda's HIV-positive population is estimated at 190,000.

The **proportion of women infected** is much greater in Africa, with ranges of 55 to 62 percent. In contrast, and reflecting an emerging epidemic, India's HIV-positive population is 29 percent female. For comparison, globally the proportion of women infected is close to 50 per cent.

## HEALTH SYSTEM AND EXPENDITURE

### Summary

South Africa and India respectively have 51 and 77 **doctors** for 100,000 people, Rwanda and Tanzania have two, and Zambia has seven. Nigeria falls in between, with 27 doctors for 100,000 people. The proportion of **nurses and midwives** is roughly similar to the proportion of doctors in India, but is significantly higher in the African countries.

In South Africa, annual **health expenditure** per capita is US\$206, whereas in India, annual health expenditure per capita is US\$30. In the other African countries, between US\$11 and US\$20 is spent on health per person each year. India and Nigeria rely heavily on the private sector for healthcare provision, and only three to four percent of government budgets in these countries is allocated to health. In the other countries, government budgetary allocation to health is between 10 and 14 percent. Indians and Nigerians cover 78 and 67 percent of their health costs, respectively, out of their own pockets. In contrast, in Rwanda, Tanzania and Zambia, the public sector covers well over half of the cost. In South Africa, private sources (not out-of-pocket), such as medical schemes and insurance, cover half of all health expenditure, with the government covering approximately 40 percent.

The **public/private mix of contraceptive sourcing** is approximately similar across the countries, with the public sector as the dominant source (data for South Africa were not available). The only exception is Nigeria, where private sources account for the same proportion as government sources (43 percent each).

Approximately half of all married Indian and South African women use modern methods of **contraception**. Approximately one quarter of married Tanzanian and Zambian women use modern methods. Nigeria's and Rwanda's use of modern methods is less than 10 percent. The mix of contraceptives used by women differs vastly between India and the African countries: Three out of four Indian women rely on sterilisation for contraception, whereas women in the African countries opt for temporary methods, with preferences for the pill or injectables. Three to four percent of married women in India, Tanzania and Zambia report they use condoms for family planning; however, the proportion using condoms is much lower in South Africa, Nigeria and Rwanda.

### **IMPLICATIONS FOR MICROBICIDES ACCESS**

An effective strategy for microbicide distribution could make use of a mixture of public and private distribution channels. Public health facilities play important roles in the distribution of health services in several countries, particularly preventive services. (The public sector is particularly important in family planning provision in all countries surveyed.) However, in many developing countries the reach of public

health facilities is limited and they remain practically inaccessible to large sectors of population. Private providers, both formal and informal, along with non-governmental and faith-based organisations are active health providers that often fill service gaps. They are likely to provide important channels to ensure access to microbicides, particularly for hard-to-reach populations.

Service quality, including appropriate privacy and adequate counselling, will need to be assured at all microbicide distribution sites, whether public or private. Initial provision could start with the distribution of microbicides in established health clinics to establish a successful base for introduction and to gain an understanding of women's reactions to and use of the products. However, increasing access will require that provision be made possible through a much wider range of service points.

Data on health expenditure suggest people's general willingness to bear some out-of-pocket expenses for certain health services. However, these data are general and not disaggregated by preventive and therapeutic products or services. It cannot be assumed that evidence of out-of-pocket expenditures will translate into a willingness to pay for microbicides. Further studies will be needed to test women's specific ability and willingness to pay for microbicides.

An important part of assuring access to microbicides is assuring that the products are affordable to the end users and that there is a mechanism to subsidise, or even exempt from payment, those who can not afford to pay. Mechanisms and strategies need to be established to assure the financing of national programs to introduce and scale up microbicides. How these operate at a country level may differ depending on the public/private/non-profit service provider mix. There is a range of instruments, including the Global Fund for AIDS, TB and Malaria and PEPFAR, that may play an important role. Equally, initiatives such as NetMark, a programme funded by USAID to assure access to insecticide-treated nets to control malaria, provide another useful example of a public-private partnership with different product financing strategies according to people's socio-economic levels.

## **REGULATORY CAPACITY**

### **Summary**

India's regulatory systems are well-developed but complex, combining both state and federal-level responsibilities. Regulatory approval in India should be tackled with the assistance of an Indian partner. South Africa's regulatory body is strong and well-regarded in the region. It may have potential as a reference authority for other African countries, particularly in southern Africa. Nigeria also has an evolved system, with the national body making considerable efforts to improve regulatory oversight in

the country in recent years. Rwanda's and Tanzania's regulations are generally based on WHO guidelines and some of their regulatory capacity is imported. (Rwanda has its ARVs tested in South Africa.) Zambia's regulatory authority underwent major organisational changes in 2005 and the new processes there are still untested. Counterfeit drug problems are particularly acute in India and Nigeria, and regulating the large private sectors in both countries remains an enormous challenge.

### **Implications for microbicides access**

Country-level regulatory capacity for approving microbicides varies considerably across the countries surveyed. Most countries currently have inadequate capacity to independently approve microbicides. These countries would most likely demand the approval of microbicides by stringent regulatory authorities in other countries or by international organisations, such as US Federal and Drug Administration (FDA) or the European Medicines Evaluation Authority (EMA). WHO will need to play an important role in providing general guidance to national regulatory authorities and the WHO pre-qualification process may play a role. South Africa and India have well-developed regulatory capacity and will have their own individual requirements before they can approve microbicides introduction to the public. However, even in these countries regulatory approval can be time-consuming and efforts to help inform a smooth process may be useful. It is important to understand individual country regulatory requirements and processes and develop a specific plan to satisfy these requirements.

## **MANUFACTURING AND PROCUREMENT**

### **Summary**

India has one of the largest pharmaceutical manufacturing capacities in the developing world and is one of the few countries with self-sufficiency in drug manufacturing. Nigeria and South Africa have considerable manufacturing capacity but still need to import many drugs. Rwanda, Tanzania and, to a lesser extent Zambia, have little manufacturing capacity.

### **Procurement**

South Africa, Rwanda, Tanzania and Zambia have autonomous national agencies that handle most public procurement. India and Nigeria, by contrast, handle procurement on a state-by-state basis. India procures most of its drugs domestically; Nigeria and South Africa import some pharmaceuticals but also manufacture domestically. Rwanda, Tanzania and Zambia import the majority of their health supplies. Mechanisms that can support efficient (e.g. transparent price information) or pooled procurement across countries should be explored.

### **Implications for microbicides access**

Drug manufacturing capacity varies greatly across the countries surveyed. Countries with well-developed manufacturing capacities, such as India and South Africa, may prefer to produce their own microbicides and are capable of manufacturing for export – an important consideration if economies of scale are to be realised and help to reduce unit production costs. They may demand the help of the international community to build their own capacity to manufacture microbicides.

There has been increasing interest in recent years in establishing local pharmaceutical production capacity in countries with weak or very limited capabilities. For example, Tanzania is exploring opportunities to manufacture new malaria drugs. However, decisions on where to manufacture microbicides need to be strategic. Small production volumes in numerous countries are unlikely to deliver the economies of scale in manufacturing needed to reduce unit costs. Equally, production in countries with weak regulatory oversight may be difficult to monitor for quality and may have limited potential for export.

A comprehensive microbicide manufacturing and procurement strategy needs to be developed in order to assure the adequate and sustainable supply of microbicides to all countries that need them. Such a strategy will require efforts to estimate and aggregate demand for microbicide across countries into which they will be introduced. Demand forecasting needs to be robust and should be undertaken early enough to inform investment decisions in manufacturing capacity.

Mechanisms to aggregate demand and support commitments for long-term financing could be important for attracting manufacturers into the supply of microbicides. Innovative financing mechanisms, such as the Global Alliance for Vaccines and Immunisations (GAVI), Advanced Market Commitments and UNITAID, have been launched to support greater commodity security in other fields and similar approaches could be considered for microbicides.

### **HIV PROGRAMMING**

Almost half of all young people in Tanzania have **knowledge of HIV-prevention methods**, whereas this measure is only two to three out of 10 in India, Nigeria, Rwanda and Zambia. Interestingly, India, with the lowest prevalence rate, had the highest proportion of youth reporting condom usage when engaging in high-risk sex (51 percent female and 59 percent male). This was only true for about 30 to 40 percent of Nigerian, Rwandan, Tanzanian and Zambian youth. In general, males were more likely to

report having used a condom during high-risk sex, whereas women were more likely to report knowledge of HIV prevention methods. (Data for South Africa were not available for these measures.)

In each country surveyed, except Nigeria where data were unavailable, knowledge of HIV increased with economic status.

South Africa has 55 **VCT** sites for every one million people. There are 38 **VCT** sites for a million people in Zambia, 26 **VCT** sites per million in Rwanda, 14 per million in Tanzania and fewer than two per million in India and Nigeria. In South Africa and Zambia, 10 and 15 percent of women in need receive **PMTCT**, respectively. In Zambia, one in four women receives **PMTCT**. About 1.6 percent of pregnant women receive **PMTCT** in India, and in Nigeria the number falls to 0.2 percent. (There were no **PMTCT** data for Tanzania available.)

Private coverage included, about 60,000 Indians were on **ART** in 2005. Nigeria has about half that number on **ART**. Rwanda and Tanzania each have approximately 20,000 people on **ART** and Zambia has approximately 40,000. Among the countries surveyed, South Africa has the largest number of people on **ART** with 105,000 receiving treatment in 2005. However, this is only one in 10 of those in need, and as a result, South Africa has the largest burden of those needing treatment at 837,000. (The South African government announced an **ART** scale-up in 2006.) In Rwanda, one in three of those in need receives treatment and one in four receives treatment in Zambia. This proportion is less than one in 10 in India and Tanzania, and negligible in Nigeria.

### **Implications for microbicides access**

In all countries, access to existing HIV prevention and treatment services is limited. This reflects the global figure of less than 20 percent of people living in developing countries having access to HIV prevention services. This provides an awareness and distribution challenge for microbicide introduction. However, all of the countries surveyed committed to scaling-up HIV services and are putting significant domestic and donor-provided resources to achieving this aim. Planning for future microbicide introduction should make realistic assumptions regarding potential for increased capacity due to scale-up efforts. However, there have also been serious concerns raised that increased funding for HIV has skewed health expenditure in some countries and weakened other health fields, such as sexual and reproductive health, that may also play important roles in supporting the introduction and use of microbicides. The timely inclusion of microbicide introduction into longer-term HIV programming



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strategies at the country level will be needed if efforts to scale up HIV responses are to provide a strong foundation for microbicide access.

## APPENDIX 1: SUMMARY STATISTICS TABLE

### 1. SUMMARY DEMOGRAPHIC INFORMATION

#### 1.1 Demographic

Data from PRB 2006, unless otherwise stated

	India	Nigeria	Rwanda	Tanzania	South Africa	Zambia
<b>Population</b>	1,121,788,000	134,500,000	9,052,000	37,858,000	47,322,000	11,861,000
<b>Pop. density per sq. mile</b>	884	377	890	104	100	41
<b>% urban</b>	29	44	17	32	53	35
<b>GDP per capita (US\$) (WHO, 2005).</b>	484	407	207	267	2,376	346
<b>Human Development Index (WHO, 2005).</b>	0.602 (ranked 127 <sup>th</sup> /177)	0.453 (158 <sup>th</sup> )	0.45 (159 <sup>th</sup> )	0.418 (164 <sup>th</sup> )	0.658 (120 <sup>th</sup> )	0.394 (166 <sup>th</sup> )
<b>% pop. below \$2 a day</b>	80	92	84	90	34	94

#### 1.2 Health and Fertility

Data from PRB 2006, unless otherwise stated

	India	Nigeria	Rwanda	Tanzania	South Africa	Zambia
<b>Crude birth rate</b>	24	43	43	42	23	41
<b>Crude death rate</b>	8	19	17	17	18	23
<b>Projected pop. increase, 2006-2050 (%)</b>	45	122	128	92	2	92
<b>Life expectancy at birth</b>	63	44	47	45	47	37
<b>Life expectancy at birth (male)</b>	62	43	46	44	45	38
<b>Life expectancy at birth (female)</b>	63	44	48	45	49	37
<b>Total fertility Rate</b>	2.9	5.9	6.1	5.7	2.8	5.7
<b>Ideal family size - women</b>	2.7 (NFHS-2, 1999)	6.7 (NDHS 2003)	4.9 (RDHS 2000)	5.0 (TDHS 2004)	2.9 (SADHS, 1998)	4.7 (ZDHS, 2001-2)
<b>Ideal family size - men</b>	-	8.6 (NDHS 2003)	4.8 (RDHS 2000)	5.3 (TDHS 2004)	-	5.3 (ZDHS, 2001-2)
<b>% married women using</b>	53	12	17	26	56	34

<b>contraception</b>						
<b>% married women using modern methods of contraception</b>	46	8	10	20	55	23
<b>Unmet need for family planning (%) (PSP-1, 2005)</b>	16	17	36	22	-	27
<b>Median age at first marriage (for women aged 25-49) (DHS, 2006)</b>	17.1	16.6	20.7	18.1	24.2	17.8
<b>Median age at first sex (for women aged 25-49) (DHS, 2006)</b>	18 (BSS, 2001)	16.2	20.1	16.6	18.4	16.8
<b>Median age at first birth (for women aged 24-49)</b>	19.2 (NFHS-2, 1999)	19.3 (NDHS 2003)	22.0 (RDHS 2000)	19.4 (TDHS 2004)	20.8 (SADHS, 1998)	18.7 (ZDHS, 2002)

### 1.3 Gender Data

Data from PRB 2005, unless otherwise stated

	<b>India</b>	<b>Nigeria</b>	<b>Rwanda</b>	<b>Tanzania</b>	<b>South Africa</b>	<b>Zambia</b>
<b>% of women who are literate (ages 15-24)</b>	65	87	76	89	94	86
<b>Literate women as a % of literate men</b>	81	95	98	95	101	94
<b>% women (aged 15+) who are economically active</b>	41	48	85	87	48	66
<b>% men (aged 15+) who are economically active</b>	86	87	87	90	61	86
<b>% women with access to newspaper, TV and radio (DHS, 2006)</b>	11.9	10.0	1.6	1.1	30.0	7.1

## 2. HIV DATA

Data from UNAIDS 2006, unless otherwise stated

	India	Nigeria	Rwanda	Tanzania	South Africa	Zambia
<b>HIV prevalence (% 15-49 HIV+)</b>	0.9	3.9	3.1	6.5	18.8	17.0
<b># ppl. living with HIV (adults and children)</b>	5,700,000	2,900,000	190,000	1,400,000	5,500,000	1,100,000
<b># children (aged 0-14) living with HIV</b>	120,000 (UNAIDS 2004)	240,000	27,000	110,000	240,000	130,000
<b># adults (aged 15-49) living with HIV</b>	5,600,000	2,600,000	160,000	1,300,000	5,300,000	1,000,000
<b># adult women living with HIV</b>	1,600,000 (29%)	1,600,000 (62%)	91,000 (57%)	710,000 (55%)	3,100,000 (58%)	570,000 (57%)
<b># orphaned due to AIDS (aged 0-17)</b>	-	930,000	210,000	1,100,000	1,200,000	710,000

## 3. HEALTH SYSTEM PROFILE

### 3.1 Key Health–Worker-to-Population Ratios

Data from PSP-One, 2005, unless otherwise stated

	India	Nigeria	Rwanda	Tanzania	South Africa	Zambia
<b># physicians per 100,000 population</b>	51	27	2	2	77 (WHO, 2006)	7
<b># midwives and nurses per 100,000 population</b>	62	119	21	37	402* (WHO, 2006)	113

\* Statistic applies to nurses only. No data are available for midwives.

### 3.2 Health Expenditure Data

Data from WHO, 2005, unless otherwise stated

	India	Nigeria	Rwanda	Tanzania	South Africa	Zambia
<b>Total annual expenditure on health (US\$)</b>	33,600m	1,883m	99.6m	454m	9,748m	237m
<b>Per capita expenditure on health (US\$)</b>	30	14	11	12	206	20
<b>% govt. budget spent on healthcare</b>	4.4	2.9	13.4	13	10.7	11.3
<b>Total expenditure on health as % of GDP (PSP-1, 2005).</b>	6	5	6	5	8.4 (WHO, 2006)	6

### 3.3 Source of Expenditure on Health: Expenditure on health by source as a percentage of total expenditure on health

Data from PSP-One, 2005, unless otherwise stated

	India	Nigeria	Rwanda	Tanzania	South Africa*	Zambia
<b>General government</b>	21	26	57	55	39 (WHO, 2006)	53
<b>Out-of-pocket</b>	78	67	28	37	10 (WHO, 2006)	35
<b>Other private source</b>	1	7	15	8	51(WHO, 2006)	12

\* Data for 2003

### 3.4 Public/Private Mix for Service Delivery

Data from PRB, 2002, unless otherwise stated

	India	Nigeria	Rwanda	Tanzania	South Africa	Zambia
<b>% modern contraceptives from public sources (govt. clinics, hospitals etc.)</b>	76.0	42.9	69.0	67.2	-	59.9
<b>% modern contraceptives from private sources (private, NGO clinics, hospitals, etc.)</b>	18.3	42.9	22.6	21.8	-	23.8
<b>% modern contraceptives</b>	4.6	8.4	7.2	10.5	-	13.0

from other private sources (shops, etc.)						
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### 3.5 Vaccination Coverage: Percentage of infants vaccinated

Data from UNICEF, 2006, unless otherwise stated

	India	Nigeria	Rwanda	Tanzania	South Africa	Zambia
BCG (TB)	73	48	86	91	97	94
DTP1 (diphtheria, tetanus, pertussis (whooping cough) 1 <sup>st</sup> dose)	71	43	94	99	99	94
DTP3 (3 <sup>rd</sup> dose)	64	25	89	95	93	80
HepB3 (hepatitis B)	-	-	89	95	92	-
Hib3 (influenza)	-	-	89	-	92	80
MVC (measles)	56	35	84	94	81	84
Pol3 (polio)	70	39	89	95	94	80
TT2plus (tetanus 2 <sup>nd</sup> and subsequent doses)	80	51	76	90	61	83

### 3.6 Method Mix: Percentage of married/in union women of reproductive age using FP methods

Data from PRB, 2002, unless otherwise stated

	India	Nigeria	Rwanda	Tanzania	South Africa	Zambia
Pill	2.1	2.4	1.0	5.3	10.6	7.2
Injection	-	2.4	1.9	6.3	23.2	1.0
Condom	3.1	1.2	0.4	2.7	1.7	3.5
Female sterilisation	34.2	0.3	0.8	2.0	15.8	2.0
Male sterilisation	1.9	-	0.0	-	2.1	0.0
Total modern methods	42.8	8.6	4.3	16.9	56.1	25.9
Total traditional methods	5.0	5.8	8.9	8.5	0.9	11.5

## 4. HIV PROGRAMMING

### 4.1 Political Commitment

*Data from Policy Project 2003*

	India	Nigeria	Rwanda	Tanzania	South Africa	Zambia
Political support (API index)	71	88	89	79	79	73
Policy and planning (API index)	75	90	93	83	69	78
Org structure (API index)	74	71	90	82	90	82

### 4.2 Coverage and Effort of HIV Prevention Interventions

Definition of knowledge of HIV prevention includes ability to correctly identify condom use and limiting sex to one uninfected partner as major ways of preventing the sexual transmission of HIV, ability to correct two of the most common misconceptions about HIV, and knowing that a healthy-looking person can transmit HIV

#### 4.2a Knowledge and behaviour

*Data from WHO, 2005, unless otherwise stated*

	India	Nigeria	Rwanda	Tanzania	South Africa	Zambia
% aged 15-24 with knowledge of HIV prevention methods (female)	21	18	23	45	-	31
% aged 15-24 with knowledge of HIV prevention methods (male)	17	21	20	40	-	33
% aged 15-24 used condom last time they had higher-risk sex (female)	51	24	28	34	-	33
% 15-24 used condom last time they had higher-risk sex (male)	59	46	41	46	-	42

#### 4.2b HIV knowledge and wealth

Data from PRB, 2004

	India	Nigeria	Rwanda	Tanzania	South Africa	Zambia
% poorest quintile of women with knowledge about sexual transmission of HIV	5	-	93	68	70	69
% middle quintile of women with knowledge about sexual transmission of HIV	19	-	94	72	85	85
% richest quintile of women with knowledge about sexual transmission of HIV	60	-	97	90	92	94

#### 4.2c HIV prevention services coverage

	India	Nigeria	Rwanda	Tanzania	South Africa	Zambia
# of VCT sites (WHO, 2005)	833	228 (NACA, 2005)	223	527	2,582	420
# of VCT sites per 1,000,000 population (WHO, 2005)	0.8	1.7 (NACA, 2005)	25.6	14.4	55.1	37.5
# of ppl. tested at VCT sites (cumulative) (WHO, 2005)	970,000	-	250,000	227,973	690,537	-
# of sites providing PMTCT services (WHO, 2005)	488 (NACO, 2005)	33 (NACA, 2005)	197	334	3,064 (DOH, 2006)	256 (GRZ, 2005)
% of HIV+ pregnant women receiving treatment for PMTCT (UNAIDS, 2006).	1.6	0.2	9.4	-	14.6	25 (GRZ, 2005)

#### 4.2d Prevention national effort: AIDS Programme Effort Index

Data from Policy Project 2003, unless otherwise stated

	India	Nigeria	Rwanda	Tanzania	South Africa	Zambia
Implementation of activities score 2001 (India and Nigeria 2003)	100 (PP, 2006)	77 (PP, 2006)	77	62	92	77
Implementation of activities score 2003 (India and Nigeria 2005)	100 (PP, 2006)	77 (PP, 2006)	77	77	92	77
Perception of overall effort score 2001 (India and Nigeria 2003)	60 (PP, 2006)	40 (PP, 2006)	70	50	70	50
Perception of overall effort score 2003 (India and Nigeria 2005)	70 (PP, 2006)	60 (PP, 2006)	90	60	80	70
Total prevention effort score 2001 (India and Nigeria 2003)	80 (PP, 2006)	58 (PP, 2006)	73	56	81	63
Total prevention effort score 2003 (India and Nigeria 2005)	85 (PP, 2006)	68 (PP, 2006)	83	68	86	73

#### 4.3 Coverage and Effort of HIV Care and Treatment Interventions

##### 4.3a ART coverage

Data from WHO, 2005

	India	Nigeria	Rwanda	Tanzania	South Africa	Zambia
Reported # of ppl. receiving ART	24,000 (60,000 incl. private)	31,694	17,781	19,600	104,600	43,964
Estimated # of ppl needing ART	785,000	636,000	49,000	315,000	837,000	183,000
% of people needing ART who are receiving ART	7.6	0.5	36.3	6.2	12.5	24.0

#### 4.3b Care and support national effort: AIDS Programme Effort Index

*Data from Policy Project 2003, unless otherwise stated*

	India	Nigeria	Rwanda	Tanzania	South Africa	Zambia
<b>Implementation of activities score 2001 (India and Nigeria 2003)</b>	94	100	88	35	76	59
<b>Implementation of activities score 2003 (India and Nigeria 2005)</b>	94	100	88	53	76	71
<b>Perception of overall effort score 2001 (India and Nigeria 2003)</b>	65	15	55	30	70	45
<b>Perception of overall effort score 2003 (India and Nigeria 2005)</b>	50	25	70	40	80	65
<b>Total prevention effort score 2001 (India and Nigeria 2003)</b>	80	33	72	33	73	52
<b>Total prevention effort score 2003 (India and Nigeria 2005)</b>	72	46	79	46	78	68

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## APPENDIX 2: SUMMARY DATA ON SEXUAL BEHAVIOUR

		India	Nigeria	Rwanda	Tanzania	South Africa	Zambia
<b>Median age at first sex</b> (Wellings et al, 2006)	<b>Male</b>	-	20.5	18.5	18.5	-	16.5 17.5 (DHS, 2006a)
	<b>Female</b>	18 (BSS, 2001)	15.5 16.2 (DHS, 2006)	20.5 20.1 (DHS, 2006)	16.5 16.6 (DHS, 2006)	17.5 17.8 (DHS, 2006)	16.5 17 (DHS, 2006)
<b>Multiple Partnerships</b> (Percentage of women and men age 15-49 who have had sexual intercourse with more than one partner in the last 12 months, among respondents aged 15-49 who were sexually active in the last 12 months.) (DHS, 2006)	<b>Male</b>	-	22	4	30	-	27
	<b>Female</b>	-	2	1	4	-	3
<b>Frequency of sexual intercourse</b> (Percentage of 15-24-year-olds who have had sex in the four weeks preceding the survey) <sup>1</sup> (Wellings et al, 2006).	<b>Male</b>	-	Married: 75-80% Unmarried: 40-45%	Married: 90-95% Unmarried: 5-10%	Married: 70-75% Unmarried: 25-30%	-	-
	<b>Female</b>	-	Married: 75-80% Unmarried: 35-40%	Married: 90-95% Unmarried: 5-10%	Married: 70-75% Unmarried: 25-30%	Married: 70% Unmarried: 45-50%	Married: 60-70% Unmarried: 15-25%
<b>Mean Age Gap Between Spouses</b> (Wellings et al, 2006) <sup>2</sup>		-	12.1 years	6.7 years	7.5 years	-	7.2 years
<b>STI prevalence<sup>2</sup></b>	<b>Male</b>	Reporting abnormal discharge or ulcers in past 12 months: 2.8% (BSS,	Declaring STI in the past 12 months: 3% Declaring STI or reporting abnormal discharge, ulcers or both in past	Declaring STI in the past 12 months: 1% Declaring STI or reporting abnormal discharge, ulcers or both in past	223,388 STI cases reported at clinics in 2003/4 (1% of population) (THIS, 2005).	3.7% reported STI symptoms in the previous three months (SANHS, 2005)	5.2% of sexually active respondents reported STI symptoms in the previous

<sup>1</sup> Percentages are approximate; source data were shown graphically and actual percentage values were not available.

<sup>2</sup> STI estimates are taken from self-reporting in surveys and it is likely that real prevalence is significantly higher, due to a) asymptomatic STIs, b) embarrassment and stigma attached to admitting having an STI. Data for Tanzania are likely to be further unrepresented as they represent actual clinic attendees rather than population-based surveys.

		India	Nigeria	Rwanda	Tanzania	South Africa	Zambia
		2001)	12 months: 5% (NDHS, 2003)	12 months: 2% (RDHS, 2000)			12 months. 7% of women and 8% of men aged 15-49 have syphilis (ZDHS, 2001-02)
	<b>Female</b>	Reporting abnormal discharge or ulcers in past 12 months: 6.3% (BSS, 2001)	Declaring STI in the past 12 months: 1% Declaring STI or reporting abnormal discharge, ulcers or both in past 12 months: 5% (NDHS, 2003)	Declaring STI in the past 12 months: 3% Declaring STI or reporting abnormal discharge, ulcers or both in past 12 months: 5% (RDHS, 2000)			

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