



Kingdom of Lesotho

LESOTHO

HIV Prevention Response and
Modes of Transmission Analysis

March 2009



The Global HIV/AIDS Program (GHAP)
The World Bank



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Lesotho National AIDS Commission



**World Bank Global HIV/AIDS Program
Global AIDS M&E Team (GAMET)**

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This study, and similar studies in Kenya, Mozambique, Swaziland, Uganda, and Zambia is the outcome of close collaborative by a team in Swaziland, with technical and financial support from the UNAIDS Regional Support Team for Eastern and Southern Africa, UNAIDS Geneva, and the World Bank's Global HIV/AIDS Program (Global AIDS Monitoring and Evaluation Team). The study entailed using existing data and collecting new data to better know the country's HIV epidemic, know the country HIV response and how funding was allocated, so as to improve the HIV response and strengthen prevention based on evidence on what works to prevent new infections.

Keywords: Lesotho, HIV, AIDS, epidemiology, epidemic, modes of transmission, incidence, prevalence, prevention, response Know Your Epidemic, Know Your Response, expenditures, synthesis, National AIDS Commission, UNAIDS, World Bank

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This study drew extensively on existing research and routine data and the MoT Country Team is immensely grateful to all the data collectors, researchers, implementers and study populations who have contributed.

EXECUTIVE SUMMARY

Background, study purpose and implementation – The Lesotho National AIDS Commission (NAC), Ministry of Health and Social Welfare (MOHSW), UNAIDS and World Bank Global AIDS Monitoring and Evaluation Team (GAMET) collaborated on this evidence-based review of Lesotho’s epidemiological situation (Know your epidemic, KYE) and national HIV prevention response (Know your response, KYR). The purpose of this modes of transmission (MoT) study is *“to contribute to the ongoing efforts to understand the epidemic and response in Lesotho and thus help the country improve the scope (doing the right kind of activities), relevance (with the right populations) and comprehensiveness (reaching all members of target populations) of HIV prevention efforts”* (MoT study Inception report p.2). The process for the KYE was an in-depth review of available epidemiological data from Lesotho and the sub-region, and application of the UNAIDS incidence estimation model. The aim was to determine the epidemiology of new (incident) infections. For the KYR part, data were collected on the policy context for prevention and on implemented prevention activities and programmes. Prevention-specific data from the National AIDS Spending Assessment (NASA) of 2008 and previous two years were reviewed. In a final step, the KYE and KYR evidence was linked to produce an epidemic, response and policy synthesis with recommendations to improve HIV prevention in Lesotho through aligning prevention activities with the evidence on the sources of new infections. The study examined the hypothesis that *multiple longer-term partnerships between single young people as well as between married or cohabiting adults are the major driver of HIV transmission, happening in a context of relaxed social norms regarding multiple partners and low risk perception*. The findings confirmed this hypothesis -- **sexual concurrency is exceptionally high in Lesotho; multiple sexual relationships before and during marriage, together with low levels of full male circumcision are major risk factors in Lesotho’s hyperendemic HIV situation.**

Supervision and review - the study was led by the Policy, Strategy and Communication Directorate of the NAC, and monitored by the ‘Core Team’ (NAC, MOHSW, UNAIDS Lesotho) through monthly meetings and progress reports. The M&E Technical Working Group and the Prevention Thematic Team supported the study, and specific technical support was provided by GAMET/World Bank (KYE, synthesis) and UNAIDS (KYR, study management). The draft findings of the synthesis were presented at the regional MoT peer review meeting (25-26 July 2008, Johannesburg) and in a satellite meeting at the XVII International AIDS Conference in Mexico City (3 August 2008). In-country, the draft synthesis report was reviewed by the two reference groups and presented to a wider group of stakeholders prior to finalisation and validation.

Use of MoT study results – the study findings will flow into the following initiatives and processes:

- Annual operational plan of action 2009
- Communication for Change project (supported by Academy for Educational Development)
- Development of the Joint UN Programme of Support on AIDS
- Essential Services Package (Gateway approach)
- Lesotho DHS (LDHS) 2009 (questionnaire design and analysis to populate UNAIDS incidence model)
- Lesotho HIV/AIDS resource mobilization plan
- National Accelerated Prevention Strategy
- National Strategic Plan (NSP) 2006-2011 review (end 2008)
- World Bank supported project

Know your Epidemic

HIV prevalence levels and trends - at 23.2% (2008), Lesotho has the third highest adult HIV prevalence in the world. The epidemic appears to have stabilised from about year 2000 onwards. HIV prevalence in children <15 can only be estimated but probably reached its peak in 2007. Some infections in children arise from early sexual debut, and there is evidence from several sources that some of these acts are forced and that the majority are unprotected.

In 2007, 7 of 10 antenatal care (ANC) sentinel sites showed decreased HIV prevalence compared to 2005. HIV prevalence in women aged 15-24 appears to be falling, but was still increasing between 2005 and 2007 in ANC clients aged 30-40 years.

Years of high HIV prevalence (adult prevalence above 15% since 1995) have changed mortality patterns and increased infant, under-5 and adult mortality. The population growth rate has drastically slowed to about 0.1% due to declining fertility, increased contraceptive use and high mortality.

In September 2008, coverage of antiretroviral therapy (ART) among those in need was at 45% (38,586 treated, 85,140 in need). The estimated number of AIDS-related deaths has dropped sharply since its peak in 2005. With ART prolonging lives of people living with advanced HIV infections, HIV prevalence data become difficult to interpret and data on new infections become very desirable.

HIV incidence levels - annual HIV incidence in adults has stabilised at approximately 1.7% (approximately 21,000 new infections in adults in 2007); peak incidence was approximately 3.6%, in 1995. Annual HIV incidence in children has halved in the last 8 years to 0.17%. There are several reasons for this drop, including the decreased incidence in adults which in turn reduces the risk of mother-to-child transmission (MTCT) and infection via other transmission pathways. Prevention of MTCT (PMTCT) uptake has increased rapidly to 31% in 2007.

Heterogeneity of the HIV epidemic in Lesotho

Lower HIV prevalence	Higher HIV prevalence
Males aged 15-30 years (10.1%)	Females aged 15-30 years (21.4%)
Females aged 40-50 years (23.3%)	Males aged 40-50 years (30.9%)
Men and women living in rural areas (21.9%)	Men and women living in urban areas (29.1%)
Poorer women (19.6% in lowest quintile)	Wealthier women (28.9% in highest quintile)
Men and women who are not working (19.9%)*	Working men and women (30.3%)*
Men and women with education (23.2%)	Men and women without education (27.4%)
Never-married men who have had sex (11.4%)	Never-married women who have had sex (24.2%)
Married women (26.9%)	Married men (32.9%)
Men and women without sex partner in last 12 months (23.1%)	Men and women with 1 or more sex partners in last 12 months (28.3%)
Women reporting sex only with spouse or cohabiting partner in last 12 months (27.4%)	Women who had higher-risk sex in last 12 months (37.2%)

* likely to be confounded by age

Although some heterogeneity can be detected, there is **a high degree of homogeneity of the epidemic**: i) All districts, both sexes and most age groups had HIV prevalence above 15% (except females 15-19 and males 15-24); ii) Women and men in all wealth, education and migration strata analysed have HIV prevalence of at least 15%; iii) All but one ANC sentinel site reported HIV prevalence above 15% in 2007.

Sources of new infections in adults - heterosexual sex is the predominant HIV transmission pathway in Lesotho, confirmed by the very high estimates of HIV prevalence in the population, the significantly higher prevalence in women (26%) than men (19%), and the mostly heterosexual nature

of reported sexual relationships. The incidence model produced uncertain estimates with wide confidence intervals due to data gaps. It could however be concluded that **the bulk of new infections in 2008 occurred in those reporting a single-partner (35-62%) and people in multiple partnerships (32-59%)**. The number of new infections in individuals reporting one sexual partner is so high because they are the most populous risk group, and because there is a high level of HIV discordancy in steady couples, combined with low condom use, and possibly secret sexual partners which were not declared in the surveys. Commercial sex may be a comparatively less important cause of new infections (~3% of total incidence). An estimated 3-4% of all new infections may arise among men having sex with men (MSM) and their female partners,¹ while a very small number of new infections may be attributable to unsafe medical injections. It was assumed that blood transfusions do not contribute to incidence (zero new infections) due to consistent routine blood screening. There was a lack of data regarding injecting drug use (IDU), but circumstantial evidence suggests that hardly any IDU takes place in Lesotho.

A summary of factors impacting heterosexual transmission of HIV:

- **Marriage trends are changing towards older age of first marriage for men and women.** This, combined with earlier sexual debut of men, leads to increased years of pre-marital sex.
- **Long term trends in median age at first sex suggest a decrease for men and a stable level for women.** In young women, low education level, low wealth quintile, and rural residence are strongly related to younger age at first sex.
- **“Male circumcision” (MC) as practiced in Lesotho is part of the male initiation process and does not seem to confer the level of protection against HIV expected from MC.** This may be because traditional MC does not fully remove the foreskin, and there is evidence of unhygienic conditions during the MC procedure, as well as riskier behaviour upon MC.
- **Sexual concurrency is exceptionally high in Lesotho with an overall prevalence of multiple concurrent partners (MCP) of 24% in 2007, compared to 10% in the region (CIET, 2008).** The number of sexual partners is a strong predictor of HIV sero-status. Survey results over the last 15 years suggest that MCP frequency may be declining but remains at a very high level. Demographic Health Survey (DHS), Apparel Lesotho Alliance to Fight AIDS (ALAFa) and Behavioural Surveillance Survey (BSS) data demonstrate that married people maintain high-risk sexual practices with other partners.
- **MCPs are part of the ‘way of life’ of many Basotho.** MCPs are facilitated by labour migration which separates couples and steady partners, by multiple needs and wants of women, and perceptions that MCPs verify a man’s wealth, standing and manhood. There is evidence that the food crisis and basic needs as well as the availability of modern consumer goods affect risk taking by women.
- **Key sub-populations at risk of HIV are mobile populations such as apparel workers and their migrating partners, miners, transport workers and plantation workers.** Sexual networks among mobile sub-populations involve both transactional and commercial sex.
- **Community level analysis of the epidemiology of HIV in Lesotho** found that gender roles and discrimination, social norms around age-disparate relationships and transactional sex, and alcohol use are important co-factors. At the **structural level**, labour and migration, sexual and physical violence and income inequality are key determinants of the epidemic but largely outside individuals’ control.

¹ The MSM model output is based on global default data on MSM (assuming that 1% of the male population are MSM)

Multiple sexual relationships before and during marriage, in combination with low levels of full male circumcision, are two major risk factors in Lesotho's hyperendemic HIV situation. Although incidence has halved since its peak in 1995, a high number of preventable infections occur each year in adults and children. More educated and younger people show positive behaviour change, but this is not sufficient to reduce significantly the scale of the HIV epidemic in the country.

Know your Response

Policy context - the policy environment in Lesotho has recently been strengthened, with six relevant national policies (HIV & AIDS, HIV Testing and Counselling (HTC), adolescent health, blood transfusion, Orphans and Vulnerable Children (OVC), Youth) approved in 2006 alone and the Education Sector HIV & AIDS Policy in 2007. In the legislative environment, important additions are the Legal Capacity of Married Persons Act enacted in 2006 (which removes minority status of married women and overrides common law), and the 2003 Sexual Offences Act (which introduced a series of sexual offences and recognizes marital rape as a criminal offence given certain conditions). The Lesotho HIV and AIDS Bill was established to create a legislative framework for Lesotho's national response to HIV and AIDS within the context of the national constitution and stipulates the responsibility of the MOHSW for providing accessible prevention services. Furthermore, there are a number of approved guidelines relevant to prevention: PMTCT, treatment of Sexually Transmitted Infections (STIs), HTC, ART and Post-exposure Prophylaxis (PEP). The policy framework for HIV prevention in Lesotho is quite comprehensive, however, there is, according to UNGASS² key informants, "*a strong need to operationalise these policy commitments into action*". The reviewers were also informed that inadequate resources make enforcement of laws problematic.

Strategic information on prevention - Lesotho has a National HIV and AIDS policy; a National Strategic Plan (2006-2011) which includes universal access targets for HIV prevention; and a costed Monitoring and Evaluation (M&E) Framework (2006-2011). This review was able to draw on the 2008 UNGASS report, and the 2008 M&E Assessment. The general picture is that the M&E system functions quite well at the national level, but is weak at district level, and information does not flow easily between the levels. In the M&E system, surveillance data, survey and research data, as well as routine activity monitoring data and financial data are brought together to track service delivery functions (outputs) and their effects on outcomes (behaviour) and their impact (HIV prevalence). There is scope to strengthen the national and sub-national monitoring systems, to conduct more evaluation studies and develop a more evidence-informed prevention response.

HIV prevention programmes - 11 programmes implementing mass media or IEC interventions were identified. Most programmes target both males and females of all ages (the 'general population') and few programmes focus on specific age groups or other target groups. Regarding behavioural interventions, 23 programmes were identified, 15 of which have national coverage. Most prevention programmes focus on the age group 12-35 for both males and females, and some target in-school youth and students at educational institutions. Younger age groups are targeted through churches, schools and communities. Nine condom interventions were identified, the most important ones being those implemented by the MOHSW (free distribution) and PSI (social marketing). There are challenges around condom distribution and logistics, with both male and female condoms in warehouses or depots while there are shortages at the peripheral level. Concerning HTC, the MOHSW is the main implementer, but the Christian Health Association of Lesotho (CHAL) and other actors also provide HTC services.

² United National General Assembly Special Session (UNGASS) on AIDS biennial reports

Most key messages were planned around the “Know Your Status” (KYS) campaign messaging. This campaign initially aimed at enabling people to know their HIV status through quality HTC as a gateway to other HIV care services. At the end of 2007, 169,000 people above 12 years knew their status through the KYS campaign. The lack of a proper referral system for those testing positive and inadequate post-test counselling for those testing negative were identified as key weaknesses.

PMTCT services are provided in all ten districts in Government and CHAL facilities (166 facilities by 3rd quarter 2008), and by end 2007, 72% of positive mothers and 77% of babies were receiving HAART or ARV prophylaxis. For *STI treatment*, the main implementers are the MOHSW, and ALAFA which operates in health centres near factories. *Male circumcision* services in the health sector are still few (Government, CHAL and Mokoanyane Military hospitals, Lesotho Planned Parenthood Association male clinic) and most circumcisions taking place currently are of a traditional type, happening in initiation schools. *Blood safety measures* are well developed and the key challenge remains to collect sufficient blood from low-risk donors in order to meet the demand. *PEP services* have been strengthened and are provided in all 10 districts. The review found two implementers of *social mobilisation activities*, and the Ministry of Gender, Youth, Recreation and Sports and the Federation of Women Lawyers carry out some ‘environmental interventions’ which concern issues around legislation and its implementation.

District prevention review meetings - Concerning male involvement, 2 districts noted ‘male focused discussions’ as a key strength and several districts considered this a key prevention activity. The review did not find a link between district HIV prevalence (or the number of PLHIV) and the number of prevention activities per district. The district informants stressed the lack of resources (funds, transport) for prevention activities and the need to decentralize resources and have timely availability of funds. Nine districts raised coordination as a key weakness together with weak collaboration and coordination among stakeholders, and poor information dissemination from central level. The availability of skilled and dedicated personnel, readiness to deliver services, political commitment, promotion of positive living, and training of traditional healers and herd boys were seen as strong points in the current prevention response by stakeholders.

Funding for HIV prevention programmes

Total expenditure on prevention for FY2005/06 was M38.53 million, which fell by 50% to M19.24 million in 2006/07. The estimated expenditure on prevention in 2007/08 is M 31.08 million, still substantially lower than FY2005/06 - the first National AIDS Spending Assessment (NASA) year.

The NASA data suggest that in 2006/07, only **10% of total HIV/AIDS funding was spent on HIV prevention** (15% in 2005/06), while 33% of funding was spent on care and treatment, and 24% on programme management, followed by OVC support (13%), and social protection (11%) – putting prevention into fifth place. Behavioural and Social Change Communication (BCC and SCC) interventions received only 2% of prevention funding in 2006/07 (M 0.4 million). Expenditure was also down in year 2 for condoms, STI interventions (prevention, diagnosis & treatment), HCT and universal precautions, and up (relative to the previous year) for PMTCT, social mobilisation, PEP and HIV-related research.

Linking the Response to the Epidemic

1. Are HIV prevention policies based on the latest available evidence and best practice?

Lesotho’s prevention strategies regarding promotion of counselling and testing, PMTCT, treatment of STIs and blood safety are covered by national policies and emulate international best practice. Examples of strategies and guidelines which are based on local evidence and international best

practice are the *NSP 2006-2011*, the *2007 PMTCT guidelines*, the *2004 ART guidelines* and the *2004 HCT guidelines*. However, MC is not addressed by the existing policies and no MC strategy has been developed to date. The much needed National BCC Strategy recently developed can draw on an important body of evidence for its finalization - analysis of best practice in the sub-region suggests that partner reduction must be at the heart of a successful BCC strategy.

2. Do HIV prevention policies and programmes respond to the key drivers of the epidemic?

Despite considerable advances in improving access and utilization of HTC services, life-skills education, workplace programmes, ART services, blood screening, and social protection of orphans, PLHIV and their families, there are important shortfalls in the response to key factors and drivers of the epidemic:

Although the “be faithful” part of the ABC strategy has been integrated into several policies and strategies, policies are not specific enough on **multiple concurrent partnerships (MCP)** - particularly given the difficulty of translating “be faithful” into Sesotho (NAC, UNAIDS, FHI 2008). MCP behaviours are not explicitly addressed in communication programmes in Lesotho (despite evidence from the CIET regional programme that MCP are highly prevalent compared to other countries in the region and fuel Lesotho’s epidemic).

Regarding **male circumcision**, only about 15% of men are “fully circumcised” - the development of the policy context and the programmatic response is not yet achieved despite the overwhelming evidence from more than 45 studies over 20 years and three randomised controlled trials (RCT) giving proof that MC significantly reduces the risk of heterosexual infection.

Migration, intimate partner violence and income inequality are not addressed as major structural drivers of the epidemic by policy and programmes - in order to maximise the impact of HIV/AIDS activities, other Government ministries and development partners need to strategically address macro-level factors (like migration, inequality) and intermediate-level factors (like gender roles and discrimination, alcohol use) within the country’s AIDS control agenda.

Current policies do not provide evidence-informed guidance on **priority populations for prevention**, and programmes are not targeting the populations where most new infections happen. **Almost no activities are targeted explicitly towards adults, married couples and people in long-term steady relationships.** “Migrating” couples have not been a clear focus of prevention activities. Age-disparate relationships contribute to very high HIV prevalence in females (ALAFA study). Policies and programmes need to aim at changing social norms to step up the fight against HIV.

Positive prevention is not a prominent concept - the approximately 282,000 PLHIV (59% living in Berea, Leribe and Maseru Districts) must be prioritized as a target population, those knowing their status as well as those who have not yet accessed HCT. **In one third of all couples at least one partner is HIV positive.** The pre-ART and ART enrolment process provides important opportunities to address prevention for HIV-positive individuals and couples. Positive prevention needs to be conceptualized and applied.

While the **legal and policy framework** has been strengthened, in practice, some laws relevant to HIV prevention are poorly applied and enforced. There is scope to redress these shortfalls, through advocacy and sensitization programmes to build awareness and stronger demand for legislation and give “teeth” to legislation, as well as legal support programmes to ensure that vulnerable populations benefit from the rights enshrined in existing legislation.

3. Is funding for HIV prevention allocated to where it is most needed?

In 2006/07, only 10% of funding was spent on HIV prevention (15% in 2005/06). In a hyperendemic situation with a large HIV reservoir and considerable high-risk behaviour, this seems too little. In 2006/07, 33% of funding was spent on care and treatment, and 24% on programme management, followed by OVC support (13%), social protection (11%) and prevention (10%). With prevention only in fifth place of spending priorities, more investment in HIV prevention is needed. Also, the BCC strategy needs to be costed and used for resource mobilisation.

There are great fluctuations in annual spending per intervention category and communication for social and behaviour change received a mere 2% of prevention funding in 2006/07 (0.4 million M, down from 6.7 million M in the previous year). Expenditure on free and socially marketed condoms combined was M 2.2 million lower in year 2. Another substantial expenditure decrease between year 1 and 2 occurred for universal precautions interventions. Increased funding in the second NASA year was found for PMTCT (roll-out) and PEP.

HCT interventions have received considerable funding, but the behaviour change effects of “KYS” are not documented – expenditure for HCT decreased in year 2, linked to HCT integration into routine services. According to current best evidence, the population impact on HIV of HCT might be low, and the 2007 ALAFA survey found that “*Knowing your status (whether positive or negative), did not have a preventative effect upon workers’ engagement in sexual risk behaviours, such as multiple partners, casual sex or transactional sex*”. The KYS intervention has been reviewed, but a comprehensive outcome evaluation on behaviour change among KYS users has not been carried out.

Expenditure on **positive prevention** was small (79,000 M in 2006/07). Expenditure for **HIV and AIDS related research** increased 7-fold to 0.2 million M in 2006/07 but was still only 0.1% of the total HIV budget in 2006/07.

Key Recommendations

Policy level

- 1. Strengthen implementation of existing policies by capacitating providers, and ensure quality services.**
- 2. Integrate “partner reduction” and the specific risk of concurrency as key elements of HIV prevention success into all future policies, strategies and guidelines that address HIV prevention.**
- 3. Review the BCC strategy to ensure that it is grounded in evidence regarding priority populations (such as steady couples) and priority risk behaviours (such as unprotected extra-marital sex), and that it plans to harness the capacity of diverse community leaders and champions to drive local activities. The BCC strategy could be a powerful resource mobilization tool.**
- 4. Fast track the process of creating the policy context for a massive scale up of “full” male circumcision (including harnessing the traditional sector as appropriate).**

Programme level

- 5. Ensure that behaviour and social change messages used in campaigns:**
 - focus on partner reduction, mutual faithfulness and safer sex
 - highlight that some common social norms put the nation at risk and therefore that some adaptation of cultural practices and society norms may be required

- emphasize the specific risks involved in age/wealth disparate relationships
 - promote condom use in non-regular and transactional sex and for secondary prevention in discordant couples
 - are developed with broad involvement of all constituencies, and are endorsed by political and other leaders
 - concentrate on the benefits of behaviour change (e.g. partner reduction: less STIs, jealousy, domestic violence and stress, less expensive, contribute to building trust and partner faithfulness and family stability).
- 6. Position male circumcision as a priority** - Scale up a comprehensive male circumcision programme (a once-off biomedical intervention accompanied by appropriate counselling and communication activities) – which would complement behaviour and social change programmes promoting partner reduction, mutual faithfulness and safer sexual practices.
- 7. Link proven prevention strategies, and continue to test innovative approaches in packaging, branding and marketing prevention services packages.** Build on the lessons learnt in the KYS campaign - for instance, a **“healthy couple”** service package which includes family planning, condom promotion, STI counselling, diagnosis and treatment, HTC, pre-ART for HIV-infected partners, relationship counselling, education on sexual risk and specific issues pertaining to migrant couples. Linking up services must better harness the potential of reproductive counselling and family planning to prevent unintended pregnancies among HIV positive mothers, women at child-bearing age in contact with services, as well as concordant HIV positive and discordant couples.

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ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome	MOET	Ministry of Education and Training
ALAFA	Apparel Lesotho Alliance to Fight AIDS	MOHSW	Ministry of Health and Social Welfare
ANC	Antenatal Care	MoT	Modes of Transmission
ART	Antiretroviral Therapy	MP	Multiple Partnership
ARV	Antiretroviral	MSM	Men having Sex with Men
BCC	Behaviour Change Communication	NAC	National AIDS Commission
BSS	Behavioural Surveillance Survey	NASA	National AIDS Spending Assessment
CHAL	Christian Health Association of Lesotho	OVC	Orphans and Vulnerable Children
DHS	Demographic and Health Survey	PAMR	Program Activity Monetary Report
ERPS	Epidemiological, Response & Policy Synthesis	PEP	Post Exposure Prophylaxis
FIDA	Federation of Women Lawyers	PEPFAR	President’s Emergency Plan for AIDS Relief (United States)
FP	Family Planning	PLHIV	Person Living with HIV
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria	PMTCT	Prevention of Mother-To-Child Transmission
GNP	Gross National Product	QSCR	Quarterly Service Coverage Report
HCT	HIV Counselling and Testing	RSA	Republic of South Africa
HIV	Human Immunodeficiency Virus	SCC	Social Change Communication
IDU	Injecting Drug Use/User	SI	Strategic Information
KAP	Knowledge, Attitudes and Practices	SRH	Sexual & Reproductive Health
KYE	Know Your Epidemic	SSA	Sub-Saharan Africa
KYR	Know Your Response	STI	Sexually Transmitted Infection
KYS	Know Your Status	SW	Sex Worker
LBTS	Lesotho National Blood Transfusion Service	UNAIDS	Joint United Nations Programme on HIV/AIDS
LDHS	Lesotho DHS	UNDP	United Nations Development Programme
LPPA	Lesotho Planned Parenthood Association	UNFPA	United Nations Population Fund
M	Maloti (local currency)	UNICEF	United Nations Children’s Fund
MARP	Most-at-risk Population	VCT	Voluntary Counselling and Testing
MC	Male Circumcision	WFP	World Food Programme
MCP	Multiple Concurrent (sexual) Partners	WHO	World Health Organization
M&E	Monitoring & Evaluation	YFS	Youth Friendly Service

GLOSSARY OF TERMS

Apparel worker	Workers employed in the textile and shoemaking factories
Basotho	The people of Lesotho
Nyatsi	Extra-marital partner
Casual sex	In incidence model: Reporting 2 or more partners in the past 12 months
Commercial sex	Where money is offered to a sex worker in return for sexual service/s
Discordant couple	A couple where one partner is HIV positive and the other is HIV negative
Driver	Behaviour or other factors that account for many or most new HIV infections, including contextual, social or structural factors that impact strongly on individual behaviour in ways that increase risk and transmission. (There are other definitions of the term “driver” in the literature; in this report “drivers and risk factors” are considered together.)
HIV incidence	The proportion of people who have become infected with HIV during a specified period of time (usually one year, i.e. annual incidence)
HIV prevalence	The proportion of individuals in a population who are HIV positive at a specific point in time
Multiple partners	Having more than one sexual partner in a given time period, either at the same time (concurrent) or one after another (sequentially)
Positive prevention	Positive prevention aims to increase the self-esteem, confidence and ability of PLHIV to protect their own health and avoid passing on HIV. Needs to be implemented within an ethical framework that respects the rights and needs of PLHIV to enjoy sexual relationships, have reproductive choices and live a full and healthy life. Requires a supportive legal and policy environment to protect the rights of PLHIV. ³
Risk (of HIV)	The probability that a person may acquire HIV infection ⁴
Risk factors	Factors which are directly linked or on the causal pathway to HIV infection (e.g. concurrent partners, sharing contaminated instruments, low condom use)
Shebeen	Informal, unlicensed bar
Synthesis	The combination of components to form a connected whole ⁵
Transactional sex	Involves the informal exchange of money, material goods or favours for sex
Universal precautions	Standard infection control practices to be used universally in healthcare settings to minimize the risk of exposure to pathogens, e.g. the use of gloves, barrier clothing, masks and goggles to prevent exposure to tissue, blood and body fluids, safe disposal of sharps.
Vulnerability factors	A range of factors that reduce the ability of individuals and communities to avoid HIV infection, such as personal factors like lack of knowledge and skills required to protect oneself and others; factors pertaining to the quality and coverage of services; societal factors such as social and cultural norms, practices, beliefs and laws that stigmatize and disempower certain populations, and act as barriers to essential HIV prevention messages. These factors, alone or in combination, may create or exacerbate individual vulnerability and, as a result, collective vulnerability to HIV. ⁶

³ http://www.aidsalliance.org/custom_asp/publications/view.asp?publication_id=90, accessed Sept 3, 2008

⁴ UNAIDS (1998).

⁵ Oxford Dictionary, 10th edition, ed. Judy Pearsall, Oxford University Press.

⁶ UNAIDS (1998).

CHAPTER 1. INTRODUCTION

1.1. MoT Study Concept

According to the 2008 Report on the global AIDS epidemic, an estimated 1.9 million people were newly infected with HIV in sub-Saharan Africa in 2007, bringing to 22 million the number of people living with HIV in this region (UNAIDS, 2008:39). Millions of new infections happen despite twenty years of experience with prevention. Success in accelerating access to treatment has not been matched by similar successes in prevention: for every two people who start treatment, five others are newly infected (UNAIDS, 2008). **Underpinning the shortcoming in the prevention response is the inadequate use of evidence to inform the response.** The result has been ineffective prevention interventions, non-optimal use of available resources and lost opportunities to address the specific factors driving infection in the populations most at risk within each country.

In recent years, with the epidemic well-established, and treatment programs now in place, questions have arisen as to whether those groups who have traditionally been at risk are still the source of new infections. The importance of “**knowing your epidemic**” has become evident, and the World Bank, UNAIDS and other agencies have initiated a series of **epidemiologic synthesis** studies in a number of countries in Africa, Asia and Latin America.

Most biological measures to assess the status of HIV epidemics revolve around collecting and analysing HIV prevalence data. But **HIV prevalence is not ideal for understanding current transmission dynamics** (Garcia-Calleja *et al.*, 2006), because:

- a) Decreases in prevalence do not necessarily indicate a reduction in risk of infection (Hallett *et al.* 2006).
- b) Changes in prevalence lag behind real changes in risk, and comparisons of prevalence between countries can be confounded by differences in the stage of the epidemic in countries.
- c) Surveillance systems primarily rely on HIV prevalence data collected from women attending selected antenatal clinics. The interpretation of ANC clients’ data is complicated by natural epidemiological changes that arise from the long and variable incubation of HIV and AIDS-related mortality (UNAIDS, 1999), by biases in the sample due to lowered fertility associated with bacterial STIs and HIV (Zaba & Gregson, 1998), by the selection bias in surveying pregnant women (who had unprotected sex, a higher risk behaviour) and by the disproportionate selection of surveillance sites in urban areas (Ghys *et al.*, 2006).

A better measure for monitoring the HIV epidemic is **incidence** (rate of new infections over a specific period of time). If incidence is known, changes in the epidemic can be better identified and characterised and linked to specific risk behaviours over the same period of time. True incidence data, however, can only be obtained through large-scale cohort studies (Rehle *et al.*, 2007). As such studies have disadvantages,⁷ three other methods are used:

- a) **Indirect HIV incidence estimates** are made using prevalence data. For instance, prevalence data from young people by single year of age are used, assuming that HIV prevalence differences between the age strata represent incident HIV infections (Ghys *et al.* 2006, Zaba *et al.*, 2000);
- b) **A laboratory-based method** can distinguish recent from established long-term infections (BED capture enzyme immunoassay) (Hargrove *et al.* 2008); and
- c) **Mathematical models of HIV incidence** have been developed to provide HIV incidence estimates from prevalence data while taking account of mortality and changes in the epidemic over time. Some

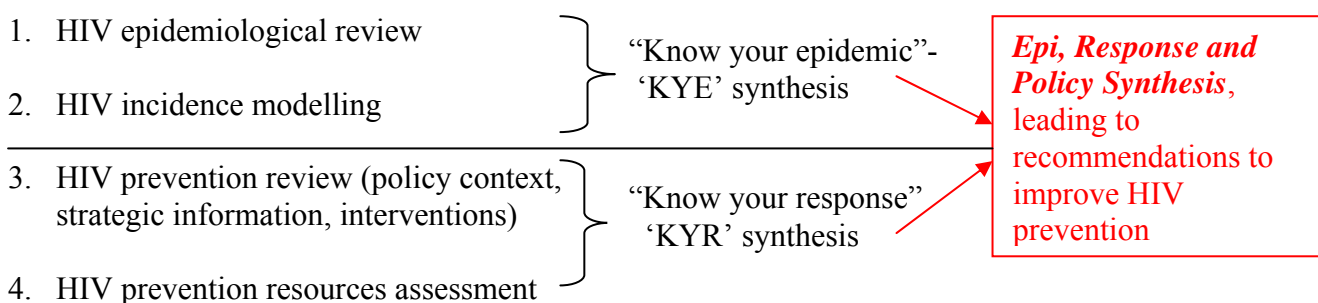
⁷ Cohort studies to assess HIV incidence have many drawbacks, including cost, ethical considerations, participation and/or selection biases and the fact that those included in a cohort will inevitably have more exposure to HIV interventions.

approaches are specifically designed for early epidemics, others for more stable conditions; some rely on long time-series or involve computationally intensive model-fitting procedures (Gregson *et al.*, 1998, Stover *et al.*, 2008, Williams *et al.* 2001).

The MoT study used the **UNAIDS incidence model**, which has been used previously in several countries.⁸ This model is unique in that it estimates prevalence *by mode of exposure*. It provides estimates of HIV incidence by various risk groups for the current year, which helps identify sub-populations with high transmission rates. The impact on incidence of various interventions can be estimated by varying model parameters like condom use and STI prevalence. Given the imperfections of models, it is advisable that model estimates be triangulated with other sources of data (Wilson & Halperin, 2008).

The MoT Study was conceived in 2007 by the UNAIDS Regional Support Team, in partnership with the World Bank GAMET team, UNFPA and others, to support better HIV prevention efforts in Eastern and Southern Africa.

The MoT study has four components:



The HIV epidemiological data and incidence modelling estimates are synthesised to obtain an epidemiological synthesis (‘KYE’ synthesis), and the HIV prevention review data and prevention resources data are synthesised to obtain an HIV response synthesis (‘KYR’ synthesis). The ‘KYE’ synthesis and ‘KYR’ synthesis are then compared to understand the gaps in HIV prevention programming (leading to an HIV Epidemic, Response and Policy Synthesis), and make recommendations as to how the response can be improved (Wilson & Halperin, 2008; World Bank, 2008a).

Relevance of the MoT Study to the concept of universal access to HIV prevention: The MoT study is designed to assist countries in focusing prevention better to those who need the services, and by doing so, progress toward universal access to prevention (UNAIDS, 2007b). Unless the key populations at risk and their risk and vulnerability factors are known, and the current prevention response understood, it is impossible to plan, target and deliver interventions that focus on the populations that most need them, in order to provide universal access of appropriate HIV prevention services to all who need them.

1.2. MoT Study in Lesotho: Hypothesis, Rationale, Purpose, and Objectives

A preliminary review of the data on Lesotho’s epidemic led to this **hypothesis:** *Lesotho’s HIV epidemic is at a hyper-endemic level, with multiple longer-term partnerships between single young people as well as between married or cohabiting adults as the major driver of HIV transmission, happening in a context of relaxed social norms and low risk perception* (MoT inception report, 2008:8).

⁸ Cambodia, Indonesia, Honduras, Russia, and Kenya, described in Pisani *et al.* (2003); Kenya and Thailand, described in Gouws *et al.* (2006)

According to the latest UNGASS report, the main programmatic challenges include slow progress in achieving behaviour change and low coverage of prevention programmes (NAC & UNAIDS, 2008a:7). Therefore, it was agreed that Lesotho would participate in the MOT process with the **purpose** of

“contributing to the ongoing efforts to understand the epidemic and response in Lesotho and thus help the country improve the scope (doing the right kind of activities), relevance (with the right populations) and comprehensiveness (reaching all members of target populations) of HIV prevention efforts”
(MoT study inception report, p.2).

Specific **objectives** of this study were to:

- a) **Describe and understand the epidemiological situation in Lesotho (‘KYE’)** – the national epidemic phase and trends, the heterogeneity of the epidemic and the modes of transmission at national level. This would be achieved through an in-depth review and analysis of all available data on HIV incidence, HIV prevalence, risk factors and drivers of the epidemic, stratified by sub-population and geographic location, and the application of the UNAIDS incidence model to generate expected distributions of new infections in different risk populations.
- b) **Describe and understand the HIV prevention response in Lesotho (‘KYR’)** – the range of planned and executed HIV prevention efforts in the country (the key messages, target audiences and geographic scope of prevention efforts), the stakeholders involved in HIV prevention, the funding for different types of prevention programmes, the availability of strategic information to inform prevention, and the policy environment for prevention. This would be done through a review of the policy context of prevention, strategic information relating to prevention, current prevention interventions and programmes by implementers in all sectors, and an analysis of current resource allocation and use.
- c) **Synthesise the KYE data and KYR data** to understand the scope, relevance and comprehensiveness of HIV prevention policies and programmes in Lesotho, the alignment of prevention programme resources, and gaps in strategic information about HIV prevention.
- d) **Recommend improvements in prevention policies, programmatic action, and resource allocation** to ensure a stronger and more effective national prevention response.

Use of MOT Study results in Lesotho: The findings of this study will flow into the following initiatives and processes:

- Annual plan of action 2009
- Communication for Change (C-change) project supported by USAID-funded Academy for Educational Development
- Development of the UN Joint Programme of Support
- Essential Services Package (Gateway approach)
- LDHS 2009 (questionnaire design and analysis to populate UNAIDS incidence model)
- Lesotho HIV/AIDS resource mobilization plan
- National Accelerated Prevention Strategy (BCC strategy drafted)
- NSP 2006-2011 review (end 2008)
- World Bank Support Project

1.3. MoT Report Structure

Chapter 1 provides the background and context to the MoT study, discusses options to measure incidence and locates the study within the universal access strategy. It presents the study rationale, purpose and objectives, and how the study results will be used.

Chapter 2 describes how the study was carried out – the methodology followed. The methods for each of the study components and for the synthesis of all the data are introduced, and the study’s limitations noted.

Chapter 3 provides the KYE synthesis results. This includes the epidemic state and trends in HIV prevalence and incidence, transmission pathways, sources of new HIV infections, data on sexual behaviours, STIs, and male circumcision. It also provides data on the socio-cultural and economic context of the epidemic.

Chapter 4 presents the KYR results, which includes policy level issues relevant to prevention, strategic information aspects of prevention, and a description of preventive interventions currently provided by implementers in the different sectors.

Chapter 5 links the epidemic situation to the response, i.e. it provides an overall synthesis of the KYE and KYR data presented in chapters 3 and 4. The chapter tries to answer specific questions regarding the alignment of current HIV prevention policies and resource allocation with the epidemiological evidence and current best practice.

Chapter 6 gives the recommendations emanating from this study. It contains policy level recommendations and programmatic recommendations and presents specific recommendations for capacity building and research/monitoring & evaluation.

CHAPTER 2. MOT STUDY METHODOLOGY

The methodology of the study was largely based on the “Guidelines for modes of transmission review” (UNAIDS/World Bank, 2008) and “How to write an HIV epidemiological, response and policy synthesis: a practical guide” (World Bank, 2008b).

2.1. Overall oversight and approvals of MoT Study deliverables

The study was led by the Policy, Strategy & Communication Directorate of the NAC, and overseen by the ‘Core Team’ composed of members of the NAC, the MOHSW and UNAIDS Lesotho. Two reference teams supported the study: the M&E Technical Working Group (focus on KYE), and the Prevention Thematic Team (KYR). Progress was monitored through Core Team meetings and documented in monthly progress reports. Coordination and communication were ensured by the NAC and specific technical support was provided by GAMET/World Bank (KYE, synthesis process) and UNAIDS (KYR, study management). Dissemination of the findings and their use in policy and programming is the responsibility of the NAC, the MOHSW and the MOFDP.

The draft findings of the synthesis process were presented at the regional MoT peer review meeting (25-26 July 2008, Johannesburg South Africa) and in a satellite meeting at the XVII International AIDS Conference 2008 in Mexico City (3 August 2008). In-country, the draft synthesis report was reviewed by the reference groups and presented to a wider group of stakeholders prior to finalisation and validation.

2.2. Methods for the KYE synthesis

Methodology – epi review: The epidemiological review was a desk study of existing published and unpublished documentation about Lesotho, and relevant studies from other countries in Sub-Saharan Africa (SSA). The review brought together available epidemiological data on HIV and STIs, and data about sexual behaviours, beliefs and attitudes, culture, gender and women’s status, social norms, poverty, inequality, economy, mobility, migration and other topics. Where possible, data were triangulated.⁹ No new data were collected, but there was some simple re-analysis of data.

Literature search and cataloguing: The study team used the “Lesotho HIV Digital Library” (CD-ROM by UNAIDS Lesotho) and employed several approaches to identify as much additional published and unpublished data and literature relevant to this study as possible. Four strategies were used:

1. *Searches on organisation websites* – National, regional and international organization websites were searched.
2. *Searches of large online databases and through search engines* - Searches were conducted using Journal storage, PubMed, Medline, Google Scholar, and Google. The searches looked for publications over the 12 years from 1997 to 2008, using Medical Subject Heading terms to identify relevant papers.
3. *Search based on citation lists in publications* - The team searched the references of the identified publications to find further relevant documents and web sites.
4. *Solicitation of documents from contacts* - The study contacted in-country colleagues, asking for specific documents which were not available in the public domain.

For the first and second strategies (searching partners’ websites, online databases and search engines), the following search terms were used alone and in combination:

Lesotho, South Africa, HIV, AIDS, prevalence, incidence, modelling, systematic review, meta analysis, HIV prevention, HIV infection, mobility, migration, sexual behaviour, behaviour change, behaviour adaptation, sexual network, surveillance, DHS, reproductive health, STD/STI, violence, substance

⁹ “A methodological approach in qualitative research used to integrate, verify, and interpret data derived from many different sources” (Mosby's Dictionary of Complementary and Alternative Medicine, 2005, Elsevier)

use/abuse, heroin, cannabis, alcohol, sex work, anal sex, MSM, homosexual, prison, iatrogenic, medical injection, blood transfusion, gender and others.

All identified documents were first checked for duplicates and then listed in a matrix to create a document catalogue, containing the document title, file name, institution/author, year, source, website, date accessed.

Types of data used: Data included measured and projected/modelled data and looked at all transmission pathways (same-sex, heterosexual sex, medical injections, blood and blood products, mother-to-child transmission, and injecting drug use). In general, preference was given to recent data (last 2 years) and to measures indicating recent risk behaviours rather than lifetime exposures, since the MoT study is about the epidemiology of incident HIV infections. However, older data were also considered, particularly when assessing trends over time. The analysis included other sexually transmitted infections (STIs) and in particular ulcerative STIs. It did not include tuberculosis as the predominant opportunistic infection (OI), as it did not include any other OI. Risk factors and socio-cultural drivers were retained as they occurred in the original literature. Time scales presented in the original reports were used to present past and future (projected) trends.

Methodology – Incidence Modelling: The incidence modelling was confined by definition to the current year (12 months) and to those aged 15-49 years. The UNAIDS Incidence Model was used. The study team did an extensive data and literature review to find the best recent data to populate the model. If local estimates were not available, ‘regional defaults’ were used as recommended by UNAIDS. If a recommended default was in fact a range (min-max), an informed guess was made as to which value should be used in the model. Model values were subjected to sensitivity analysis in order to understand the effect of changes through interventions. The final model used different transmission probabilities and data on prevalence of multiple partnerships, in order to provide the best range of model outputs (see **annex 1** for models and explanations).

2.3. Methodology for the KYR synthesis

The MoT prevention review consisted of four parts: i) a review of the policy context of the HIV response; ii) a review of the strategic information (SI) available in relation to HIV prevention; iii) a review of Lesotho’s current prevention programmes and projects; and iv) a review of prevention resource data presented in the NASA report. All MoT data collection tools were customized for Lesotho and validated during the MoT technical planning workshop held in Maseru (9-10 April 2008).

i) Policy review - All key policy documents were identified (including policies, laws, acts, bills, strategies and guidelines) and analysed based on the following five questions:

1. Which policies, guidelines, legislations, protocols relate to HIV prevention in Lesotho?
2. Are there any policy gaps (i.e. where there is regional evidence for prevention benefits but no policy)?
3. Are prevention policies in Lesotho based on evidence?
4. Which prevention policies respond to drivers of the epidemic?

The *HIV prevention response policy checklist (annex 2a)*¹⁰ was filled in through a desk review of documents and discussed and validated with the Prevention Thematic Team, also referring to the 2008 UNGASS policy index data.

ii) Strategic information review - The *HIV prevention response strategic information checklist (annex 2b)*¹¹ was completed based on document review including the recent National M&E Assessment (conducted with GAMET support, it convened over 40 key stakeholders with the objective of strengthening M&E systems in Lesotho), and discussed and validated with the M&E TWG.

¹⁰Questions on mainstreaming of HIV/AIDS in education, and on policies regarding sexual health/sexuality were added.

¹¹ Questions were added on SI regarding access to HIV prevention, the existence of a framework for systematic experience-sharing, dissemination of SI; question 3 on monitoring of programme coverage and performance issues was modified.

iii) Prevention programme review (implementer interviews) - The interviews with prevention implementers used the template developed by UNAIDS/GAMET for the MOT work in East and Southern Africa (GAMET 2008)¹² as customized for Lesotho.¹³ For ease of data collection, the template was turned into an interview guide (**annex 2c**). A total of 36 HIV prevention service providers were interviewed after being selected because they were assessed within the NASA or are important due to the size or nature of their prevention interventions. Overall, 8 government structures, 13 international NGOs, 12 local NGOs, and 3 CSOs were interviewed by four NAC research assistants specifically trained for the task. Interviews were recorded by hand and with digital recorders. Data were entered into Excel according to the six prevention categories (listed in footnote 13) and subjected to thematic and simple quantitative data analysis.

Prevention programme review (participatory district review meetings) – stakeholder meetings in the 10 districts were facilitated by the NAC District Technical Support Officers (TSOs) with support from the NAC Research Officer. The aim of the meetings was to introduce the MoT study and invite participants to discuss the strengths and weaknesses of the current prevention programmes. Standardised district reports were produced (see report template in **annex 2d**) by the TSO based on the plenary discussions and report back from group work during the meetings. The reports were subsequently entered into a spreadsheet and frequency and thematic analyses conducted in order to gain an overview of the data generated by the 10 district reviews.

iv) HIV prevention resources review - the NASA, conducted independently of the MoT study, was the data source for this component of the MoT study. The detailed methodology is described in the NASA report (NAC & UNAIDS, 2008b). In brief, this tracking of actual expenditures for HIV/AIDS in Lesotho used the standard NASA methodology, and captured public and external sources of funds.¹⁴ Priority was given to actual expenditure records obtained from the service providers, or recipients of the funds, rather than the budgetary allocations of government or the commitments or disbursements of donors. All funding sources, agents of funders in Lesotho and providers that were known to work in the field of HIV/AIDS were contacted.¹⁵ In-patient figures for all hospitals were taken from the Health Statistics Tables of the Health Planning Statistics Department for all years between 06-08, although some figure were incomplete (08 in particular). Of the 17 hospitals, only 9 hospitals had unit costs available and these were extrapolated to the other 8 hospitals based on location, management and size. To capture expenditures on AIDS in the in-patient departments, an estimate of the proportion of care for people with AIDS had to be established. Field

¹² HIV prevention activities were classified into 6 categories (see also: UNAIDS, 2008b): a) **Interventions affecting knowledge, attitudes and beliefs and influencing psychological and social risk correlates:** mass media, interpersonal education-related interventions intended to change attitudes and/or behaviour regarding HIV/AIDS. Also family life education targeting in-school and out-of-school youth and other populations, education to promote universal precautions, prevention counselling, environmental interventions that enable prevention interventions, social mobilisation and condom promotion; b) **Risk reduction:** programmes to lower risk of behaviours: condom distribution, reducing harm for IDUs and livelihood alternatives for sex workers, providing safe spaces for vulnerable populations; c) **Biological/ biomedical interventions that reduce HIV infection and transmission risk:** Diagnosis and treatment of STIs, PEP, FP services, male circumcision, PMTCT, breastfeeding substitutes for HIV+ mothers, screening blood products, disinfection of medical equipment, use of gloves & protective clothing, proper disposal of biohazard waste, drug treatment; d) **Mitigation of barriers to prevention and negative social outcomes of HIV infection:** interventions that may help increase access to prevention services by vulnerable groups, e.g training service providers and law enforcement officers in human and civil rights, separate accommodation to protect at-risk groups, self help and solidarity groups for prevention, financial and in-kind sustenance support, medical and legal assistance services for MARPs, counselling and psychological support for PLHIV, legal policy and institutional reform to protect human rights of PLHIV; e) **Mitigation of biological outcomes of HIV infection:** HIV/TB treatment services, HIV related OI prophylaxis and treatment, treatment of hepatitis; and f) **Standardized hybrid interventions in common use:** Testing and counselling (aside from PMTCT), condom social marketing, comprehensive sex education and social mobilization.

¹³ To include the following: Family life education as “family life education/life-skills based education”; “blades” added to needles and syringes; and inclusion of traditional health services (traditional healers, community based birth attendants etc).

¹⁴ UNAIDS (2007c) for NASA methods and procedures, UNAIDS (2007d) for classifications and definitions

¹⁵ A database of all stakeholders involved in HIV/AIDS as sources, agents and providers, was developed using the NAC and UNAIDS databases. Only the 5 government ministries with the largest HIV/AIDS programmes were included: Health & Social Welfare; Gender, Youth, Sports & Recreation; Education; Local Government & Chieftain Affairs; and Agriculture & Food Security.

visits were conducted in 5 districts to capture the number of in-patients that are HIV positive, and the proportions calculated were applied to 11 other hospitals based on the size of the hospital.¹⁶

2.4. Methods for the KYE-KYR Synthesis

This step was largely based on the methodology described in “How to write an HIV epidemic, response and policy synthesis: a practical guide” (World Bank, 2008b). The key areas of enquiry were:

- To understand the socio-cultural context in which HIV prevention policies are implemented
- To understand whether HIV prevention policies are based on the latest available evidence and best practice
- To understand whether HIV prevention policies respond to the key drivers of the epidemic in Lesotho
- To understand whether the funding allocated for HIV prevention is directed where it is most needed.

The joint analysis of the “know your epidemic” and “know your response” analyzed data at several levels:

1. *Individual and couple level analysis*: Included biologic, demographic and behavioural factors that may influence the risk of HIV acquisition of a person (such as education and circumcision status, number of sexual partners); or HIV transmission risk between sexual partners (such as age disparity);
2. *Community level analysis*: This analysis summarized determinants of HIV transmission that are outside the direct influence of individuals and couples (for instance gender roles and sexual norms); and
3. *Structural level analysis*: This analysis included macro-level factors which are outside the direct influence of National AIDS Programmes such as migration trends, violence, income and inequality.

In order to locate risk factors at the different levels and understand the HIV epidemic context, the framework for the social epidemiology of HIV/AIDS described by Poundstone *et al.* (2004) was used. This framework includes social and structural factors beyond the individual level, which allows a wide and encompassing view of the epidemiology and context of HIV.

2.5. MoT Study Limitations

This study had several limitations. Some data on risk groups such as MSM, IDU, and clients of sex workers were not available, which limited the scope of the application of the HIV incidence model (see **section 3.5 on specific data gaps** for model application). Furthermore, the model has some inherent limitations: it does not take into account the distribution of sexual behaviours within risk groups, sexual mixing patterns, or concurrency. The current version of the incidence model could therefore not fully contribute to the testing of the MoT study hypothesis (see section 1.2). The KYE synthesis relied on recent data but sometimes had to use older data (e.g. DHS 2004) which weakens the power of the study. It was rarely possible to show long term trends of variables, due to different measurement methodologies. Many analyses presented in the KYE chapter are bivariate (relationships among pairs of variables), and any data interpretations had to be made with caution due to possible confounding. The multivariate analysis (relationships among three or more variables at the same time) of the 2004 DHS data by Corno & de Walque (2007) was an important input into the KYE synthesis because it reported associations in which confounding has been allowed for.

The framework for classifying HIV interventions (Sweat 2008) requires a rich description of the intervention, which was not always attained, making classification as per the framework difficult. Additionally, the lack of available data from prevention implementers (coverage, target population, evaluation reports of interventions, etc.) limits the conclusiveness of the review. Inconsistency in filling out the template through the district reviews limits comparability of district responses (for example even though the template only required 3 key strengths, districts listed 3 to 7).

¹⁶ Primary data included expenditure information at source and qualitative information on funding and reporting mechanisms for HIV/AIDS spending. Secondary data included audits, annual reports, action plans from various organizations. Care was taken to avoid double counting. All data were transcribed to the NASA forms designed for this project. For missing data, assumptions and estimates were made (described in main NASA report). The data were captured, checked and balanced before being transferred to the NASA Resource Tracking Software. The outputs were exported to Excel for analysis purposes.

CHAPTER 3. KYE SYNTHESIS

The KYE synthesis draws together all available data about HIV prevalence trends and heterogeneity, HIV incidence, and modes of transmission of new infections. The KYE synthesis tests the hypothesis that multiple longer-term partnerships between single young people as well as between married or cohabiting adults - happening in a context of relaxed social norms regarding multiple partners and low risk perception - are the major driver of HIV transmission in Lesotho.

3.1. Context of the country's HIV epidemic

Lesotho is a landlocked mountainous country in Southern Africa. Only 11% of the land is arable; more than 80% is at least 1,800 m above sea level. The population is estimated at 1.88 million (BOS, 2007). The main ethnic group is the Sotho (99.7%) and there are small numbers of Europeans, Asians and other ethnic groups (0.3%).¹⁷ In 2008, 60% of the population was aged 15-64 years, and 35% was aged 0-14 years of age (US Census Bureau 2008 estimate). There are 95 males for every 100 females in the country (BOS, 2007).

Approximately 86% of the resident population is engaged in subsistence agriculture, but drought and soil erosion have affected output in recent years. AIDS has had multiple negative impacts on the subsistence sector, by decimating healthy and productive people, and putting additional economic burden on subsistence farmers through illness, medical and funeral costs which accelerate the cycle of poverty and result in a lack of productive means. The strong currency has partly eroded export competitiveness, and retrenchment from the South African mines reduces GNP.¹⁸ AIDS has reduced the tax base. Income inequality is very high with a Gini index of 63.2 (HDR 2007/8) – more unequal than Swaziland, South Africa and Botswana.

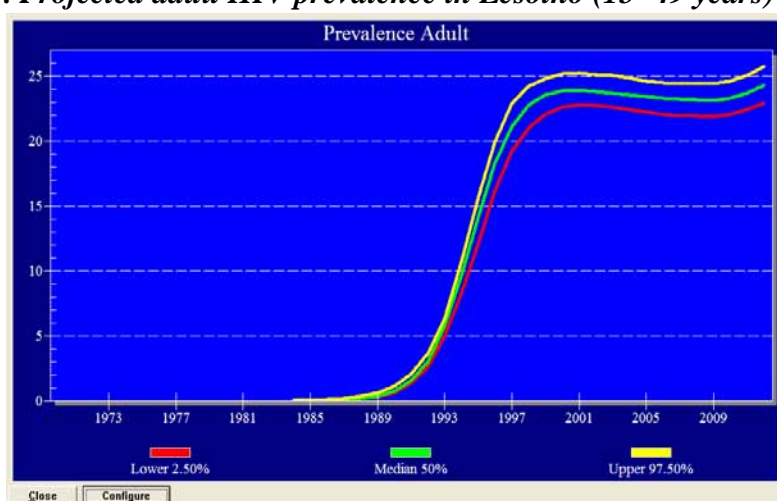
The structure of the society is negatively affected by high premature mortality, growing dependency ratios and internal and external migration. There is a strong trend towards urbanization - the population living in urban areas increased from 11% in 1976 to 24% in 2006 (BOS, 2007).

This chapter describes the epidemiology of prevalent and incident HIV infections in Lesotho. It first describes trends in HIV prevalence and summarises the heterogeneity of the HIV epidemic (by gender, age, geography, income, migration, education, marital status, discordance within couples, and sub-populations); then describes trends in new infections (incidence) and the main sources of these new infections, and finally presents factors that impact transmission.

Figure 1. Projected adult HIV prevalence in Lesotho (15- 49 years)

3.2. National trends in HIV prevalence

The epidemic has reached a plateau at very high level (figure 1). In 2008, Lesotho has the third highest adult HIV prevalence in the world at 23.2% (NAC & UNAIDS, 2008a). The HIV epidemic in Lesotho probably began in the late 1970s or early 1980s, with the first case of AIDS reported in 1986 (GOL, 2003). By 1991, the median HIV prevalence in pregnant women in Maseru was 5.5% and in STI patients it was 6% (UNAIDS, 2006).



Source: NAC, 2008a

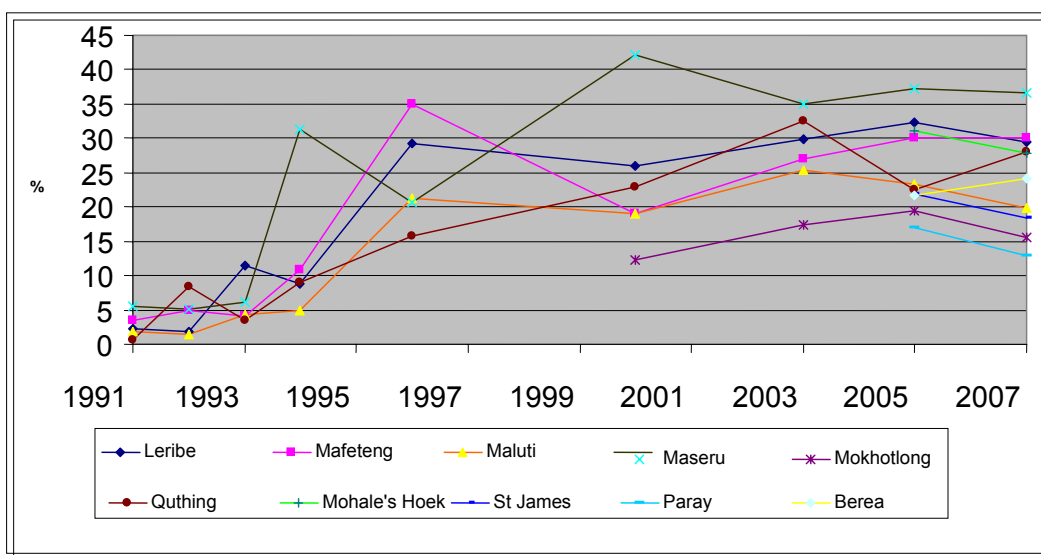
¹⁷ <https://www.cia.gov/library/publications/the-world-factbook/geos/lt.html#People>, accessed 23 June 2008

¹⁸ Lesotho's economy is based on agriculture, livestock, manufacturing, and the earnings of labourers employed in South Africa. Numbers of Basotho mine workers employed in South Africa have declined steadily in recent years. In 1996 their remittances added about 33% to GDP, down from roughly 67% in 1990 (<http://nostalgia.wikipedia.org/wiki/Lesotho>, accessed 15 July 2008).

AIDS case reporting began in 1984 coordinated by the STD/AIDS Unit of the MOHSW. By end 1999, there were 10,880 reported cases of AIDS (GOL, 2003). **Based on adult HIV prevalence, the epidemic appears to have stabilised¹⁹ from about the year 2000 onwards, but official Government projections indicate that adult prevalence might increase further after 2009 mainly as a result of the provision of ART.**

The addition of ANC sentinel sites and biennial implementation of surveillance provide better data to track national prevalence trends. Sentinel surveillance among ANC clients and STI clinic attendees was established in Lesotho at five sites in 1991. Consecutive sentinel surveillance rounds were implemented in the same sites in 1991, 1992, 1993, 1994 and 1996, and then irregularly. No surveys were conducted from 1997 to 1999 due to lack of resources. In 2000, ANC surveillance was resumed and a sixth site, situated in the mountains, was added. ANC prevalence at this site was much lower than in the pre-existing sites (figure 2). Since 2003, ANC surveys have been conducted bi-annually. In 2005, another four sites were added. Sites now represent the three geographical zones; lowlands, foothills and highlands as well as urban and rural settlements (MOHSW, 2008a).

Figure 2. HIV prevalence trends in sentinel sites in Lesotho (1991-2007)



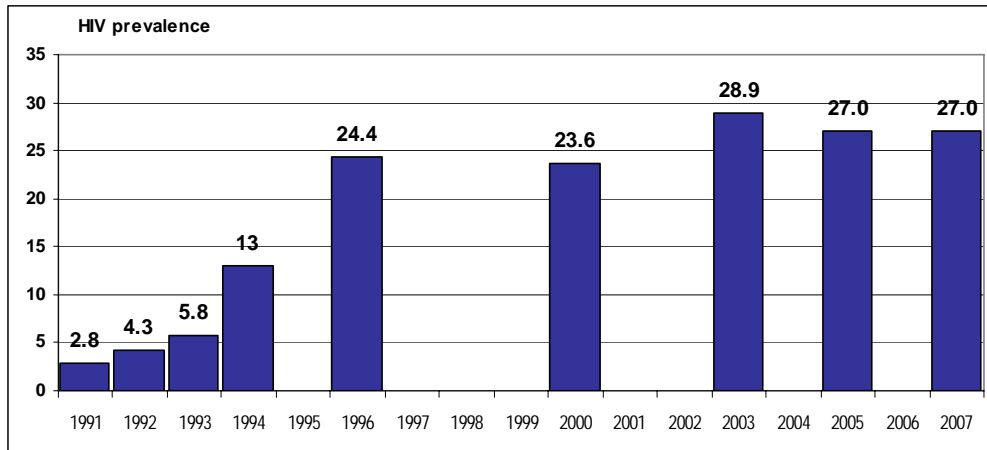
Source: MOHSW, 2008a:21 (Sentinel HIV/syphilis survey 2007)

The more recent ANC data have increasingly been used for projections and estimations with EPP and Spectrum software, in order to project HIV prevalence, and estimate PLHIV numbers, new infections, AIDS deaths, orphan numbers and treatment needs. The seroprevalence data from the LDHS 2004 (MOHSW, 2005) are being used to create a more accurate set of assumptions to use in estimating prevalence rates from sentinel surveillance data. This is in accordance with UNAIDS and WHO (2000) suggesting that population-based surveys “should definitely be used to calibrate the results of routine surveillance systems”.

Mean ANC prevalence has stabilised at 27% and several surveillance sites observed small prevalence decreases. After reaching a maximum average HIV prevalence of 28.9% in ANC clients in 2003, the two subsequent surveillance rounds in 2005 and 2007 estimated average ANC HIV prevalence at 27.0% (figure 3). The addition of four new sites with relatively lower HIV prevalence in 2005 (see figure 2) contributes to the decreased mean HIV prevalence in ANC clients observed since 2005. Site specific HIV prevalence (figure 4) in 2005 and 2007 has dropped in 7 sites, increased in 2 sites (Berea, Quthing), and stayed virtually the same in one (Mafeteng). Prevalence in Maseru was considerably higher than in all other sites in 2005, and showed only a minor decrease in 2007.

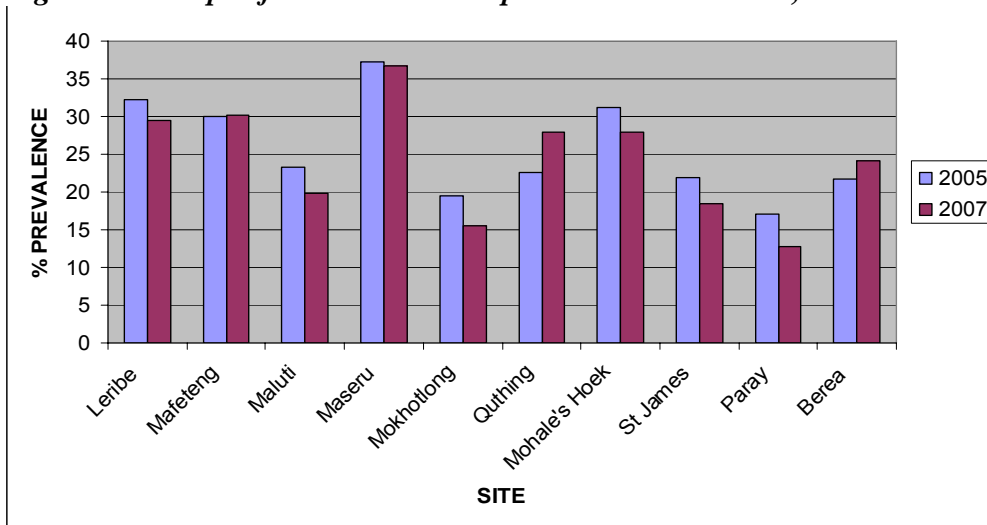
¹⁹ Stable HIV prevalence in a population used to arise from equilibrium between numbers of new infections and numbers of deaths. ART roll-out results in increasing number of people with HIV staying alive longer, and falls in incidence do not necessarily reduce prevalence. A secondary increase in prevalence (figure 1) may indicate further increases in ART coverage with no sustained drop in incidence or even an upsurge in incidence due to a replenished pool of susceptible young people.

Figure 3. Mean HIV prevalence in ANC clients by year in Lesotho, 1991-2007



Source: MOHSW sentinel surveillance data base, extracted in July 2008.

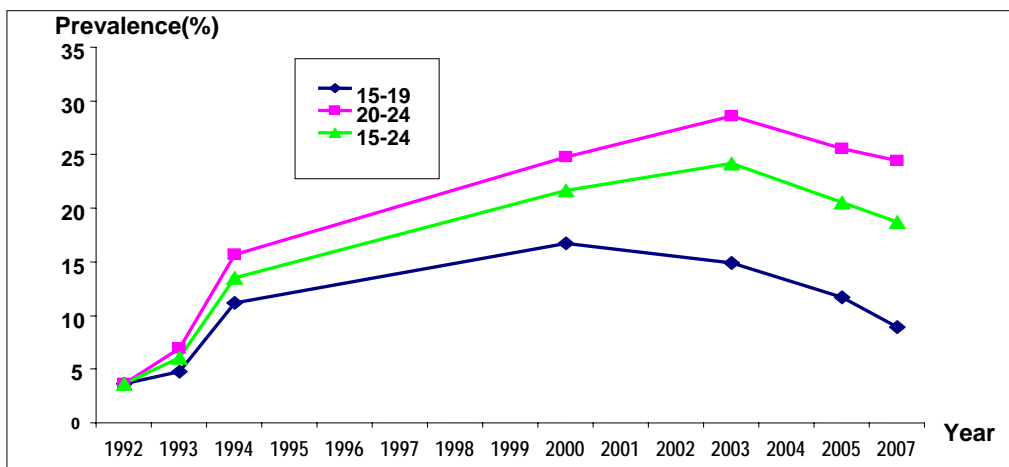
Figure 4. Site-specific antenatal HIV prevalence in Lesotho, 2005 and 2007



Source: MOHSW, 2008a (Sentinel HIV/syphilis survey 2007)

HIV prevalence is falling in young women. Among pregnant women, it has been observed that prevalence in 15-19 year olds has decreased since year 2000, and in 20-24 year olds since 2003 (figure 5) – prior to the addition of four sentinel sites in 2005 (i.e. the decrease early in this decade is not an effect of the addition of these four sites). In contrast, women aged 30-40 years show further increased HIV prevalence between 2005 and 2007.

Figure 5. HIV prevalence trend among young ANC clients in Lesotho (1991-2007)

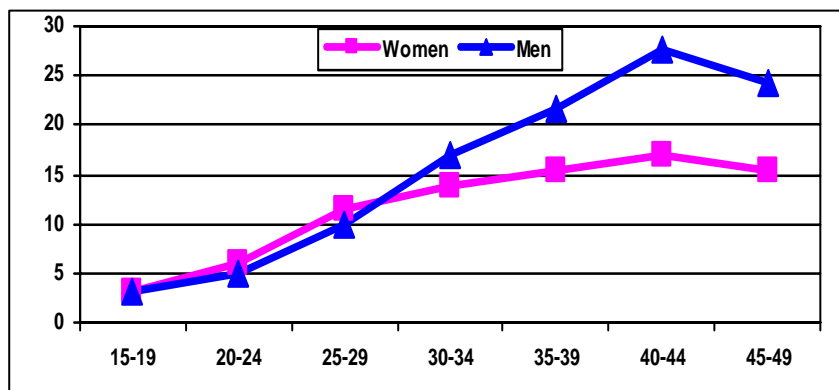


Source: MOHSW, 2008a (Sentinel HIV/syphilis survey 2007)

Years of high population prevalence have changed mortality patterns. It is estimated that in Lesotho, adult population prevalence has been above 15 % since about 1995 (figure 1). The average time of 11 years from infection to death without treatment (ART barely had any impact on mortality before about 2005) means that AIDS-related mortality has profoundly changed the demographic composition of the population.

The population growth rate slowed between 1996 and 2006 as a result of declining fertility, increased contraceptive use²⁰ and rising mortality.²¹ The LHDS 2004 shows an *adult mortality rate* of 11.1, and found that *infant and under-5 mortality* had increased to 91 and 113 per 1,000 live births, respectively. The LDHS 2004 also found that except for neonatal mortality, children of mothers who are HIV positive have higher early childhood mortality rates than children born to mothers who are HIV negative.

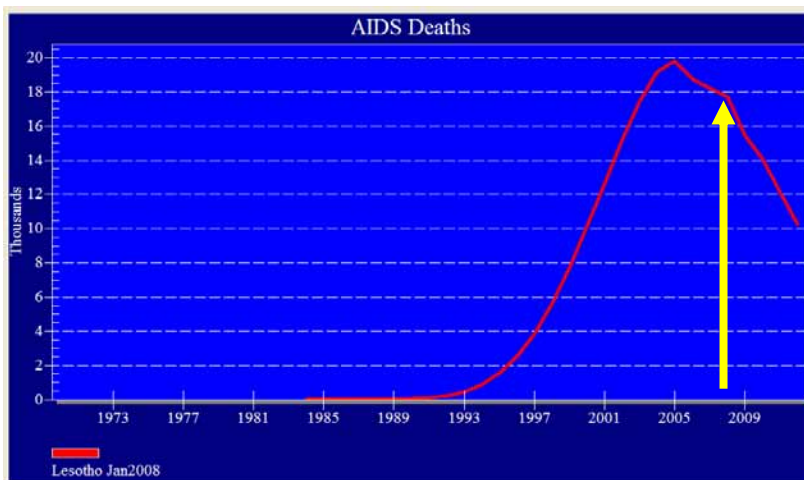
Figure 6. Sex specific mortality rates in Lesotho, 2004



Source: LDHS 2004 (all data refer to the 10-year period preceding the LDHS 2004)

ART will affect population prevalence and transmission dynamics into the future. ARV coverage among those in need of treatment increased from 10% in 2005 (8,000 cases on ARVs) to 45% in September 2008 (38,586 on ARVs of 85,140 in need) (NAC & UNAIDS, 2008a, HIV Care & ART Report MOH Dec 2008, Spectrum projections). The fact that close to half of all people in need of ART are receiving it means that fewer people are dying, in fact, the estimated number of AIDS-related deaths has sharply dropped since reaching a peak level of 20,000 in 2005 (figure 7 – see arrow for 2008 value). The effect of ART is that *HIV prevalence is maintained at a higher level* by reducing AIDS-related mortality. Prevalence data become increasingly difficult to interpret, hence the importance of monitoring HIV incidence.

Figure 7. Estimated AIDS-related deaths in Lesotho (2008)



Source: NAC, 2008a (National HIV and AIDS estimates and projections)

²⁰ Contraceptive prevalence rate increased from 23% in 1996 to 37% in 2004 (LDHS 2004)

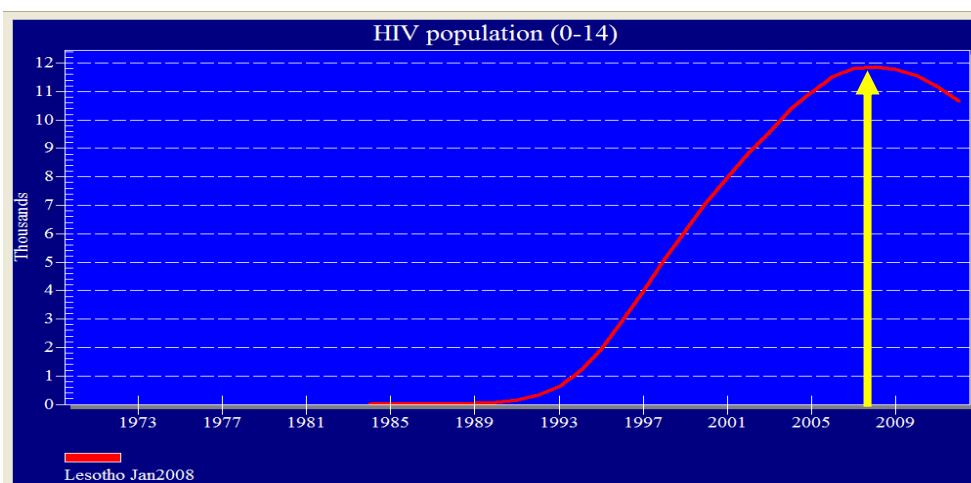
²¹ Life expectancy in men decreased from 58.6 years in 1996 to 48.7 years in 2001; women's life expectancy decreased from 60.2 years in 1996 to 56.3 years in 2001 (BOS, 2003)

This prevalence-maintaining effect of ART is to some extent counteracted by the effect of ART on the *infectiousness of sexually active people with advanced HIV infections* (without ART, viral load and hence risk of transmission increase steeply at the late stage of infection). The new ARV treatment guideline recommends treatment onset at a CD4 count of 350 instead of 200 (MOHSW, 2004); this measure could further curtail transmission by people with advanced HIV infections to their sexual partners. So there is a convergence of individual and population interests in early recruitment of HIV-positive patients into ART.

HIV prevalence in children is at its peak level. In the absence of national prevalence survey data for children aged 0-14 years, the country is using Spectrum projections based on the national DHS-calibrated HIV prevalence curve, census data, ART and PMTCT coverage data, and assumed values for survival rates, fertility rates, duration of breastfeeding, and extent of mixed infant feeding. According to these projections, 11,800 children were HIV positive in 2007 (figure 8, see arrow). Child HIV prevalence is currently at its peak level and is expected to start a falling trend. Just as in adults, the prevalence curve for children below 15 years of age is influenced by several factors:

- a) **More HIV-positive children survive due to ART:** In 2007, 3,520 children were expected to need ART, and 931 were enrolled in ART programmes -- a coverage level of 26% (NAC & UNAIDS, 2008a). Reduced AIDS-related childhood mortality will maintain the HIV prevalence level at a higher level than in the absence of paediatric ART.
- b) **Fewer newly infected infants due to PMTCT roll-out:** In 2007, 31% of the estimated 12,750 HIV-positive pregnant women received treatment to reduce MTCT (of which 9% received HAART and the remainder ARV prophylaxis, NAC & UNAIDS, 2008a:10&26), up from 5% in 2005. The rapidly increasing access by pregnant women to PMTCT and ART means fewer newborn infants infected. Further reduction of prevalence in infants would be brought about by high levels of exclusive breastfeeding in infants below 6 months, as recommended by WHO – in 2004, only 15% of infants were exclusively breastfed by 6 months of age (LDHS 2004:159).
- c) **A mix of different exposures leading to infections in children:** In the LDHS 2004, 15% of girls and 27% of boys reported sexual intercourse before age 15, and only about a quarter of these acts were protected by a condom, it can hence be assumed that some infections in children below 15 arise from early sexual debut. Some of these sex acts are non-consensual – in the 2005 sexual violence survey, 23% of participants reported experiencing forced sex at age 16 or younger (Measure Evaluation, 2005), and in the 2007 KAP survey (CIET, 2008), 18% of youth aged 8-17 said they had been forced to have sex against their will. Forced sex acts are commonly unprotected. Other exposures might also play a role (see later section in chapter). These different exposures contribute to HIV prevalence in children and provide potential for interventions.

Figure 8. Estimated HIV prevalence in children aged 0-14 years in Lesotho (2008)



Source: NAC, 2008a (National HIV and AIDS estimates and projections)

3.3. Heterogeneity of HIV prevalence

This section addresses patterns of HIV prevalence and heterogeneity of the epidemic – by gender, age, geography, income-level, migration, education status, marital status and within couples – in order to provide a more differentiated view of Lesotho’s hyperendemic situation. Overall, the level of *homogeneity* of the epidemic is striking, and although important heterogeneity can be detected, the general impression is that the epidemic is spread fairly evenly across different socio-demographic sub-populations.

3.3.1 Gender-related heterogeneity

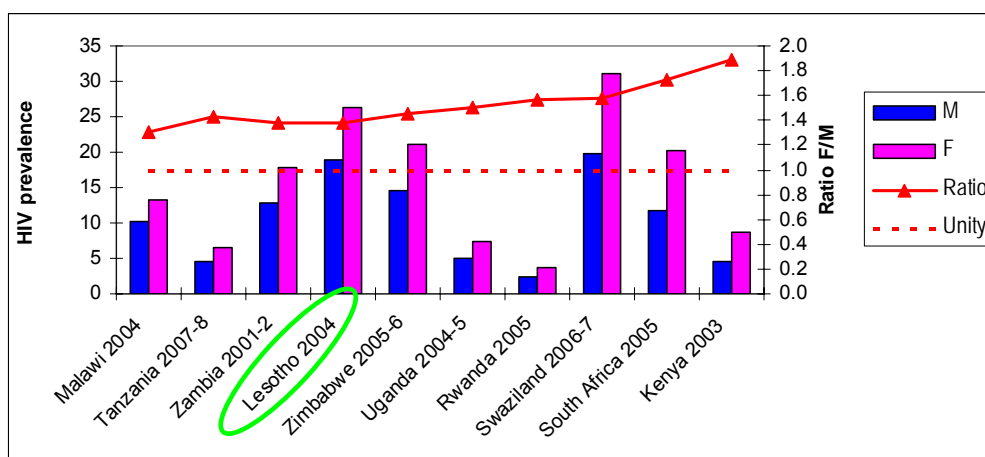
Women experience a higher burden of infection than men. An estimated 273,798 adults (15-49) in Lesotho are living with HIV, of whom about 156,417 (57%) are females and 117,381 (43%) are males (Spectrum estimations, NAC, 2008a). The imbalance is due to higher overall HIV prevalence in females and more females in the country (m:f sex ratio 95:100). The LDHS 2004 estimated that the national adult HIV prevalence was 23.5% (26.4% for females, 19.3% for males) - a female to male prevalence ratio of 1.4 : 1.

The MOHSW “HIV Care and ART Report” indicates that in December 2007, 22,430 adults were on ART including 14,915 women (66% of all adults on ART). The higher number of women on ART is mainly due to the HCT provided within the PMTCT programme, which leads to an average of 300-400 pregnant women getting started on ART each month. Girls under 15 years made up 46% of the 1981 children on ART.

Gender-related heterogeneity is less pronounced in Lesotho than in other countries in the region.

Although women are 40% more likely to be HIV infected than men (implied by the female to male prevalence ratio of 1.4), the differential between the two sexes is much smaller than in Kenya, South Africa and Swaziland, for example (figure 9). In Lesotho, men also have a considerable HIV prevalence (19.0%) which is only matched by men’s HIV prevalence in Swaziland (19.7%).

Figure 9. Sex specific HIV prevalence and ratio across countries (2001-2007)



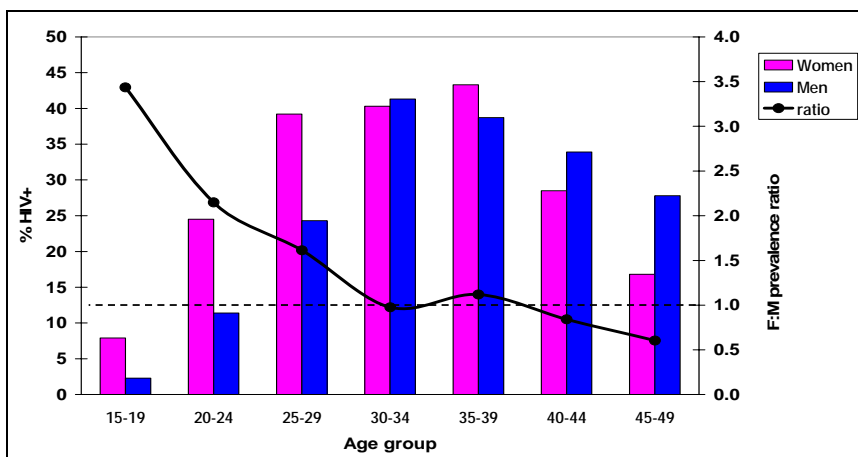
Sources: DHS reports of Kenya 2003, Lesotho 2004, Malawi 2004, Rwanda 2005, Swaziland 2006-7, Tanzania 2007-8, Zambia 2001-2, Zimbabwe 2005-6; National survey report of South Africa 2005; AIS report of Uganda 2004-5.

3.3.2 Age-related heterogeneity

Prevalence is very high in young women and in males in their 30s and 40s. According to the 2004 LDHS, HIV prevalence peaks in women and men at different ages: 35-39 years for women (43.3%) and 30-34 years in men (41.3%), see figure 10. Female prevalence rises extremely steeply among young women to very high levels among women in their late 20s and peaks in women in their late 30s. The large prevalence differentials between women and men below 30 years of age could be due to biological susceptibility, age of sexual debut (see section 3.6.1.2), and age-mixing patterns in sexual relationships (see section 3.6.2.2). High levels among adults in their 30s give clues about age mixing and multiple partnerships – at the age of 35-39 years two thirds of all women are married and some new infections must arise from extramarital

relationships by their husbands, or themselves. Male prevalence is higher than female prevalence for adults in their 40s. The DHS also provided prevalence data from **men in their 50s** and found that **16% are HIV positive, higher than the prevalence among males aged 15-24 years.**

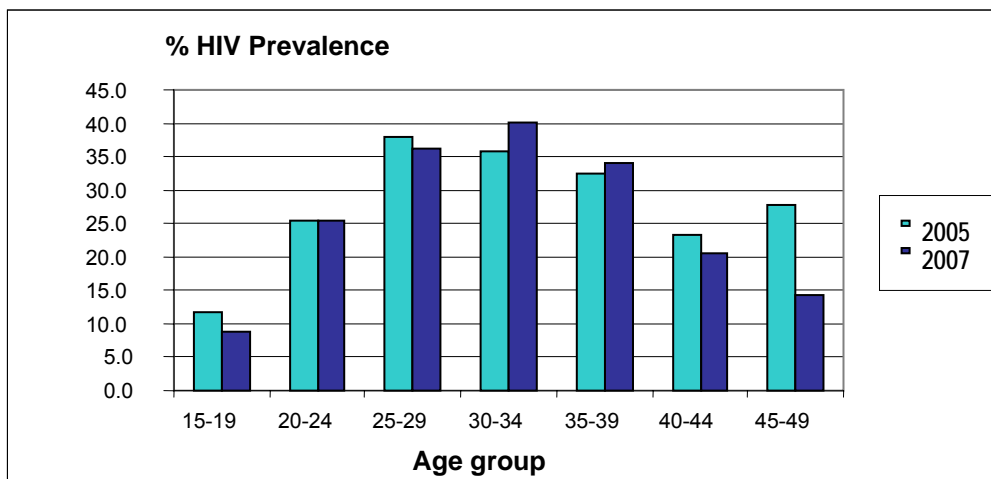
Figure 10. Age- and gender-specific prevalence and female:male prevalence ratio in Lesotho, 2004



Source: LDHS 2004:233.

Prevalence has dropped in young ANC clients but is still rising in clients in their 30s. There is age-related heterogeneity in prevalence trends in ANC clients (figure 11). Sentinel sero-surveillance shows decreasing HIV prevalence in 15-19 year olds since the sentinel survey in 2000, and in 20-24 year olds since 2003, **suggesting that incidence is declining in these groups.** Women aged 30-40 years show further increased HIV prevalence between 2005 and 2007, which may be a combination of age cohort effects and new infections in these women.

Figure 11. Age-specific HIV prevalence in ANC clients in Lesotho (2005 and 2007)



Source: MOHSW, 2008a (Sentinel HIV/syphilis survey 2007)

Although there is heterogeneity in HIV prevalence between age and gender groups, it has to be emphasized that in the 2004 DHS, **both sexes and most age groups had HIV prevalence above 15% (except females 15-19 and males 15-24),** indicative of the hyperendemic situation in Lesotho.

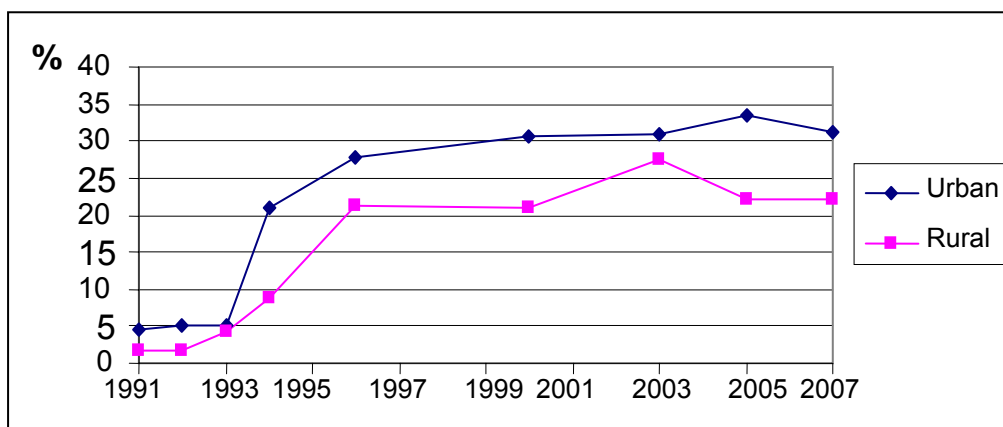
3.3.3 Geographic heterogeneity

The 2004 LDHS data show quite small differences in HIV prevalence across the four ecological zones, ranging from 21% (mountain zone) to 25% (lowlands). Female prevalence was lowest in the mountain zone, and male prevalence was lowest in the foothills. Certain mountain areas are remote and isolated, possibly restricting population mobility and sexual mixing.

Urban HIV prevalence is consistently higher than rural prevalence. Despite close links and high mobility between rural and urban areas, local differences in HIV prevalence exist. The 2004 LDHS found urban prevalence significantly higher (29.1%) than rural prevalence (21.9%) ($p < 0.001$). Prevalence in urban women was 33.0% compared with 24.3% for rural women (1.4 urban-rural relative risk of HIV infection). The urban-rural differential was less for men: 22.0% of urban men were infected compared with 18.6% of rural men. In the whole South African sub-region, urban prevalence tends to exceed rural prevalence by a few percentage points. This may be due in part to risks related to internal labour migration to urban areas, where new arrivals often live in informal settlements, away from the controlling environment of the village, and in need of money to cover costs. Furthermore, the relative greater wealth in urban areas may support risk behaviours such as sex-for-consumption, where sexual relationships are sought and maintained to acquire consumption goods (in addition to sex-for-survival), contributing to high HIV prevalence levels (Leclerc-Madlala 2004).

ANC client data of 2007 show the same pattern of higher prevalence in urban areas (31.1%) than in rural areas (22.2% - again 1.4 urban-rural RR of HIV infection).²² Figure 12 shows that **urban prevalence has consistently been higher than rural prevalence**. Both appear to be stabilising – rural from 1997, urban from about 2000 (with some fluctuations); in 2007, urban prevalence showed a small downturn.

Figure 12. HIV prevalence trend among rural and urban ANC clients in Lesotho (1991-2007)



Source: MOHSW, 2008a (Sentinel HIV/syphilis survey 2007)

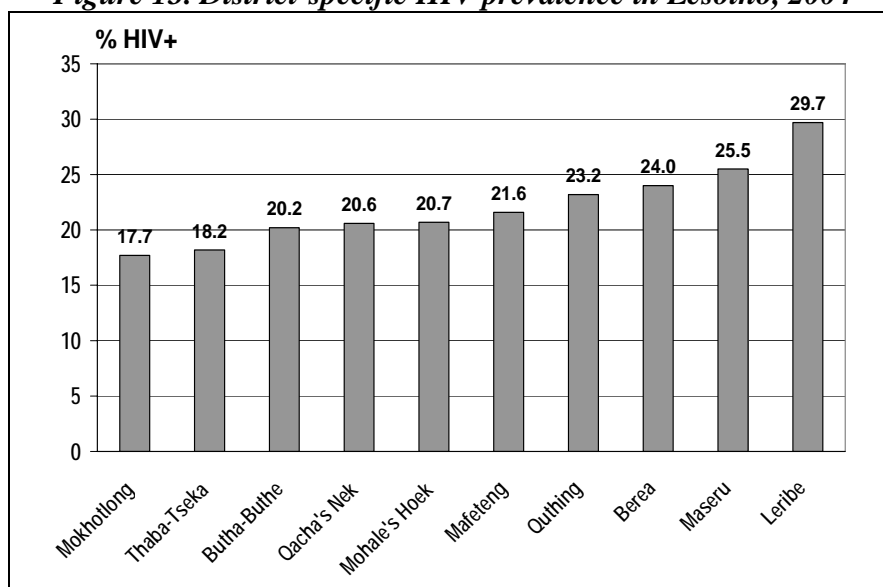
District-specific HIV prevalence shows variation. There are substantial differences in HIV prevalence across districts, ranging from 17.7% (Mokhotlong District) to 29.7% (Leribe District) – although there is little difference in HIV prevalence across the ecological zones (see earlier). Figure 13 illustrates the variation across districts. It is possible that low participation in HIV testing in the 2004 LDHS in Maseru District leads to an underestimation of HIV prevalence in this district²³ - the 2007 ALAFA survey found that 45% of apparel workers in Maseru were HIV-positive, compared to 34% of workers in Maputsoe, Leribe District (ALAFA, 2008:12).

The Western districts have the highest HIV prevalence, population numbers and numbers of PLHIV. The districts of Qacha's Nek and Mokhotlong have the lowest number of PLHIV. The combination of especially high prevalence and large populations in Berea, Leribe and Maseru also give these Western districts the highest number of PLHIV (4, 6 and 7 times more than Qacha's Nek).

²² The classifications 'rural', 'urban' and 'district', were changed in 2007, from classifying the sentinel site to classifying by ANC client's residence, in preparation for future data comparability --Lesotho is planning countrywide annual ANC surveys instead of using sentinel sites.

²³ Acceptance of HIV testing in the LDHS was highest in Qacha's Nek (85%), Quthing (81%) and Mafeteng & Thaba-Tseka (80%); it was very low in Maseru (only 58.3% tested, highest refusal rate of 26%); and 74-79% in the other 5 districts. Total national coverage: 74.7% (LDHS 2004, Table 12.1)

Figure 13. District-specific HIV prevalence in Lesotho, 2004



Source: LDHS 2004 (Table 12.4)

The ANC sentinel survey of 2007 also found heterogeneity of HIV prevalence between districts (by residence of client) and across sentinel sites. District-specific prevalence varied from 15.1% in Thaba-Tseka to 35.8% in Maseru (no data for Buthe-Buthe and Qacha's Nek Districts). HIV prevalence in the sentinel sites for 2005 and 2007 was shown in figure 4; the map in figure 14 depicts the 2004 district HIV prevalence levels, as well as the size of urban populations, borders and international crossings.

Although HIV prevalence is higher in urban areas, and prevalence varies by district, it is important to note that HIV prevalence was above 15% in all districts in 2004, and all but one ANC sentinel site reported HIV prevalence above 15% in 2007.

3.3.4 Heterogeneity across wealth and employment levels

For women, HIV prevalence increased with wealth quintile²⁴ (20% for lowest wealth quintile and 29% for highest wealth quintile)²⁵ and is significantly higher among working women (33% compared to 23% for non-working women)²⁶ – see figure 15. For men, the relationship between wealth and HIV prevalence was non-linear, and medium wealth seemed to be associated with highest HIV prevalence. Working status was also significantly associated with HIV prevalence in men -- working men had a 60% higher risk of being HIV infected.

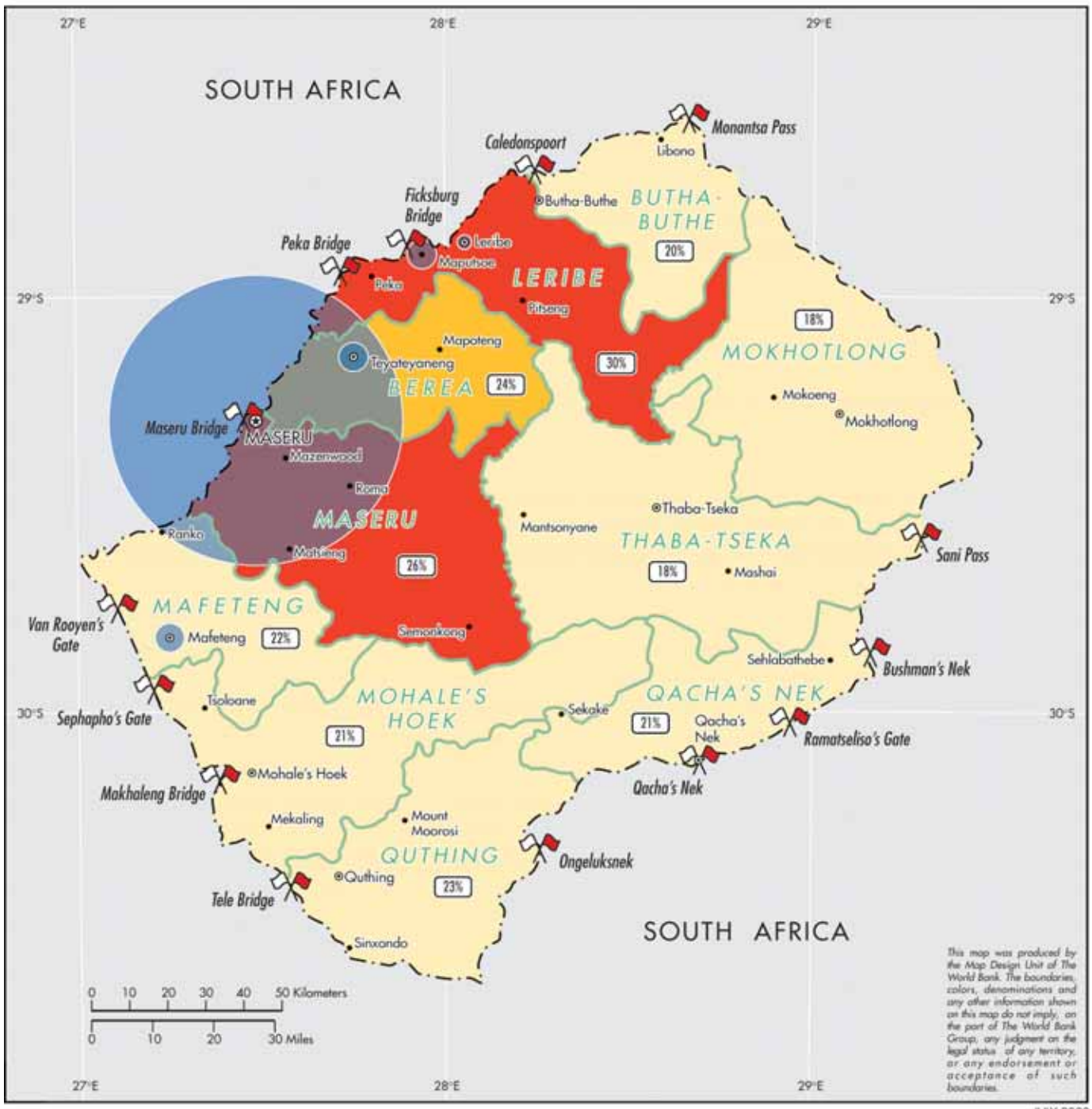
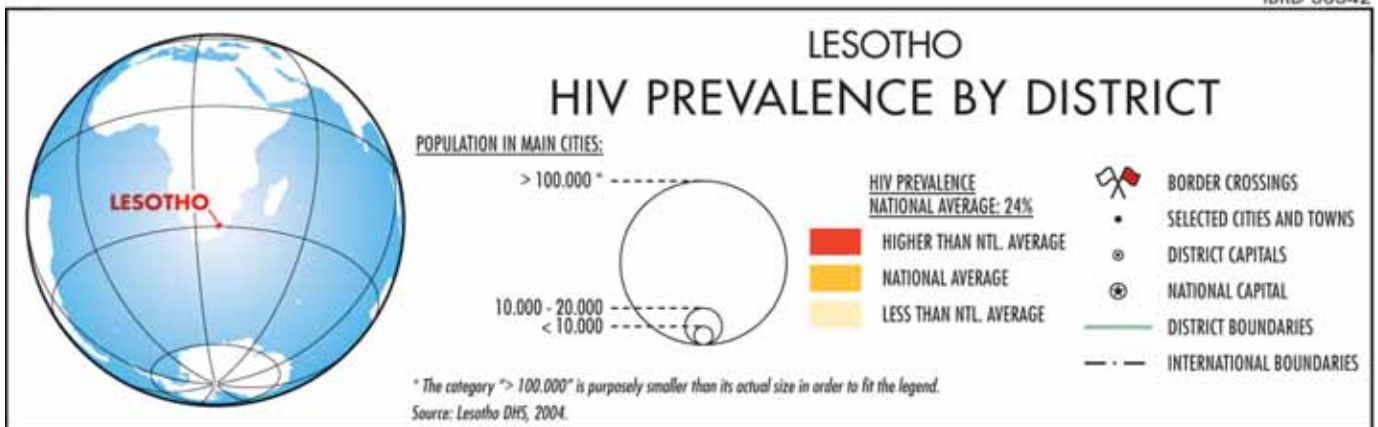
²⁴ Index of socioeconomic status, developed and tested in a large number of countries in relation to inequities in household income, use of health services, and health outcomes (2004 LDHS, p9). The economic index was constructed using household assets (e.g. television, bicycle, car), and dwelling characteristics (e.g. source of drinking water, sanitation facilities, and type of material used for flooring).

²⁵ Multivariate analysis found that “wealth was positively associated with HIV infection until the fourth quintile” (Corno & de Walque, 2007 p12).

²⁶ No multivariate analysis available; the relationship is probably confounded by age since older women are more likely to be working (DHS table 3.5.1 and to be HIV positive (DHS table 12.3).

Figure 14. Map of Lesotho with 2004 district prevalences, towns and major border posts

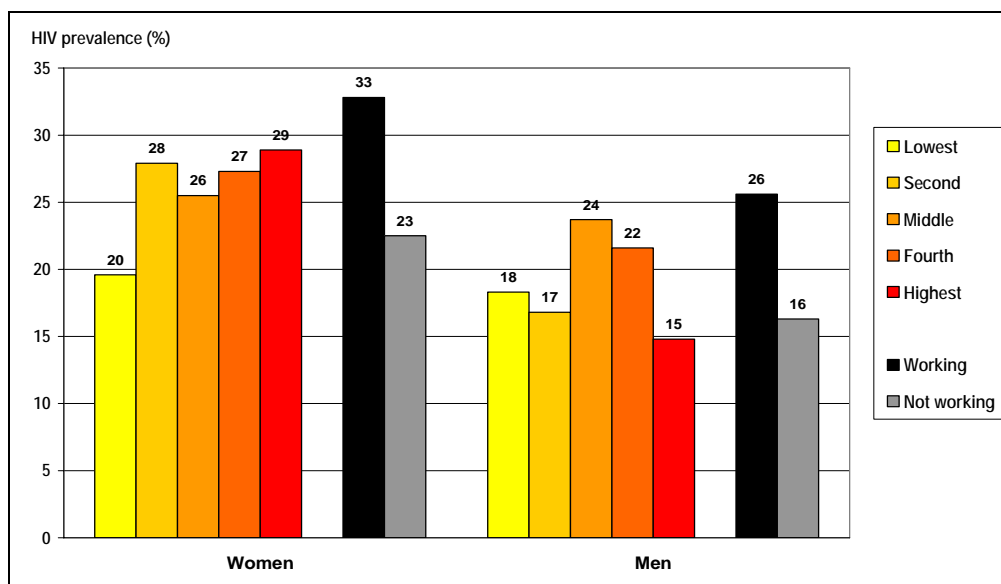
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Source: World Bank, 2008 using HIV prevalence data from 2004 DHS

Figure 15. HIV prevalence by wealth and working status in Lesotho (2004)



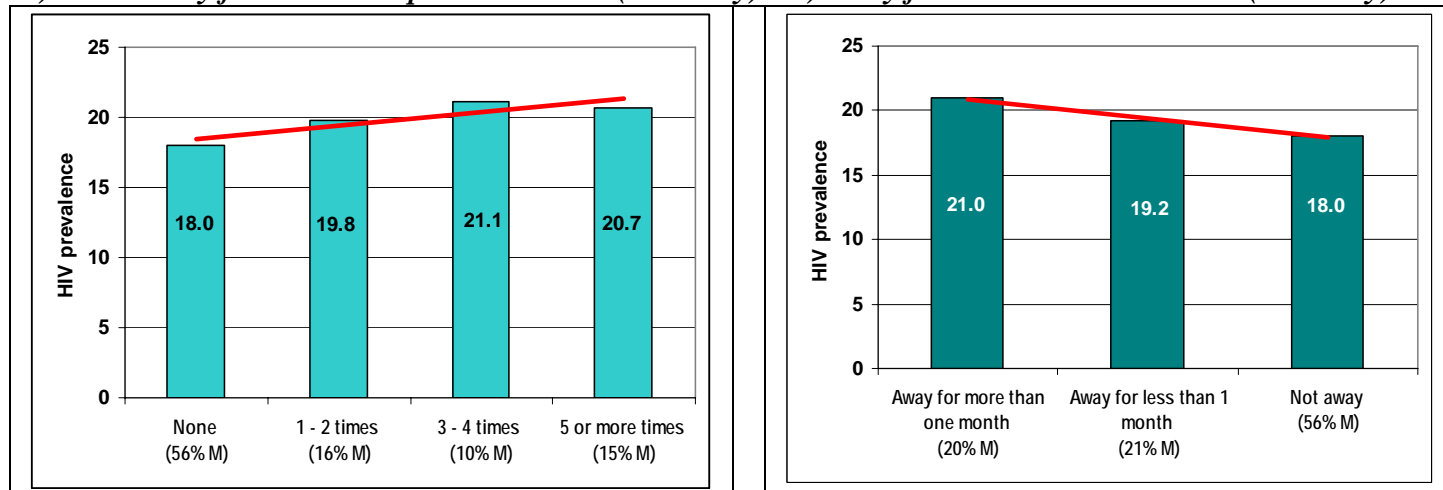
Source: LDHS 2004 (Table 12.4)

3.3.5 Heterogeneity across migration patterns

Men who were away from home more often and for longer periods, have higher HIV prevalence, as figures 16a and b illustrate, but the differentials are not large. Women increasingly travel for work and stay away from home, but no comparable data are available for women.

Figure 16. HIV prevalence by time and number of times away from home in Lesotho, 2004

a) Times away from home in past 12 months (men only) b) Away for more than one month (men only)



Source: LDHS 2004 (Table 12.5)

At the time of the DHS, 56% of men were not migrating but stayed at home without long periods away. This is a dramatic change from the times when the South African mines were major employers of Basotho men and labour migration was common. Female labour migration has been on the rise in recent years with increasing numbers of women participating in both internal and cross border migration.²⁷ Internal female migrants are often young (15-29) and migrate from rural areas to the cities and industrial zones in the country in search of employment.

²⁷ IOM briefing note:

http://www.iom.int/jahia/webdav/site/myjahiasite/shared/shared/mainsite/events/docs/Briefing_Notes_HIV_Lesotho.pdf

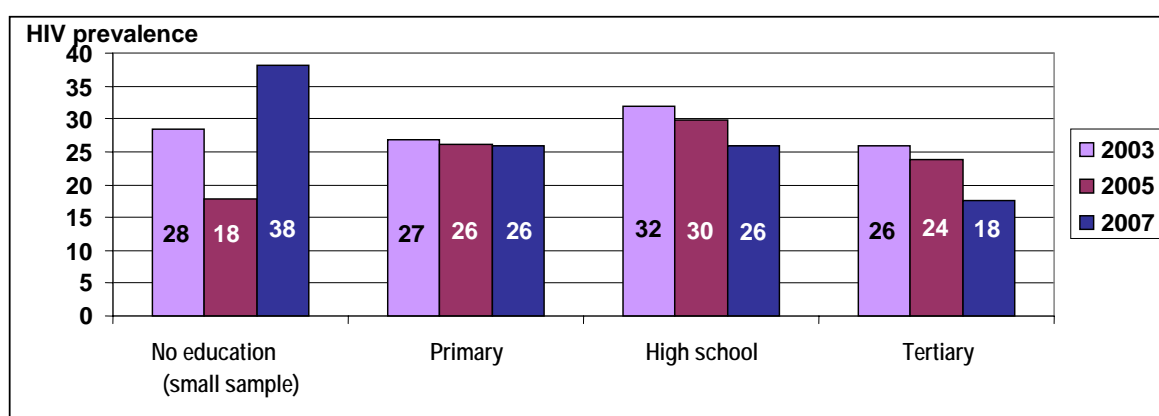
3.3.6 Heterogeneity by education status

In Lesotho, educational attainment is considerably higher for females than males (ages 15-49, DHS data): 2.3% of women versus 15.5% of males have no education; 40% of females versus 26% of males have secondary or higher education. In both sexes, HIV prevalence is highest in those without education (30% in females [small sample] and 27% in males). Corno & de Walque (2007) found by multivariate analysis of the LDHS data that (controlling for other variables):

- As education increases, the probability of being HIV positive decreases
- Education strongly predicts preventive behaviours like condom use, the absence of non-marital sex, delayed sexual debut, as well as HCT use and knowledge about HIV.

ANC data from 2003-2007 indicate that the largest recent decrease in HIV prevalence is in ANC clients with tertiary education (31% decrease) and the smallest decrease (4%) was in those with primary education (the number of ANC clients with no education is very small) – see figure 17.

Figure 17. HIV prevalence in ANC clients, by education status in Lesotho, 2003-2007



Source: ANC sentinel reports for Lesotho (various years)

Despite variations in HIV prevalence across socio-economic, education and migration categories, HIV prevalence was at least 15% in women and men in all wealth, education and migration strata analysed (2004 DHS).

3.3.7 Heterogeneity relating to marital status and type of marital union

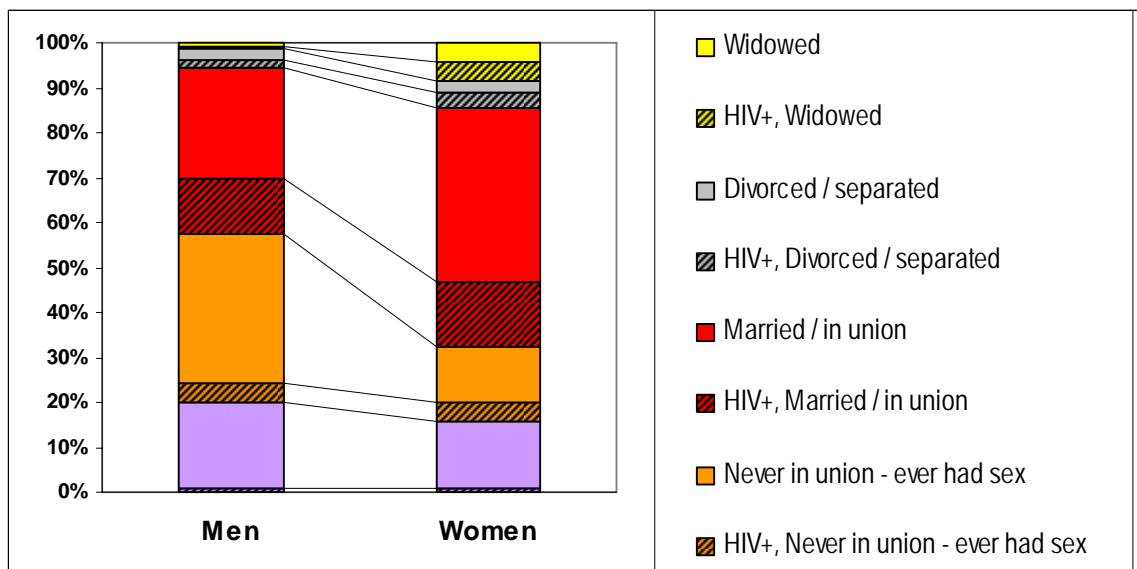
The only adult sub-population with low HIV prevalence is people who have never married and never had sex (4% for men, 5% for women²⁸ - see figure 18, where the column shows groups as a proportion of the total population, and the shading shows HIV prevalence within each marital sub-group). Although HIV prevalence of divorced, separated and widowed men and women is very high (36-38% amongst men and 47-56% amongst women), they are a small percentage of the population (5% of all men over 15 years and 14% of women).

There are notable differences between men and women:

- Among sexually active men who have never been in union, HIV prevalence is relatively low (11%) compared to sexually active women who have never been in union (HIV prevalence 24%);
- Married men have a higher HIV prevalence (33%) than married women (27%).

²⁸ These infections may have several entirely different explanations: HIV positive individuals could be misallocated to this group due to wrong questionnaire answers (i.e. some might have had sex, but don't report it); there could have been a problem with the blood sample or data processing (however, a false positive HIV test result is very unlikely, see 2004 LDHS page 5); or they could be correctly allocated to this group and be positive due to non-sexual transmission.

Figure 18. HIV prevalence and marital status for men and women age 15 and older in Lesotho (2004)



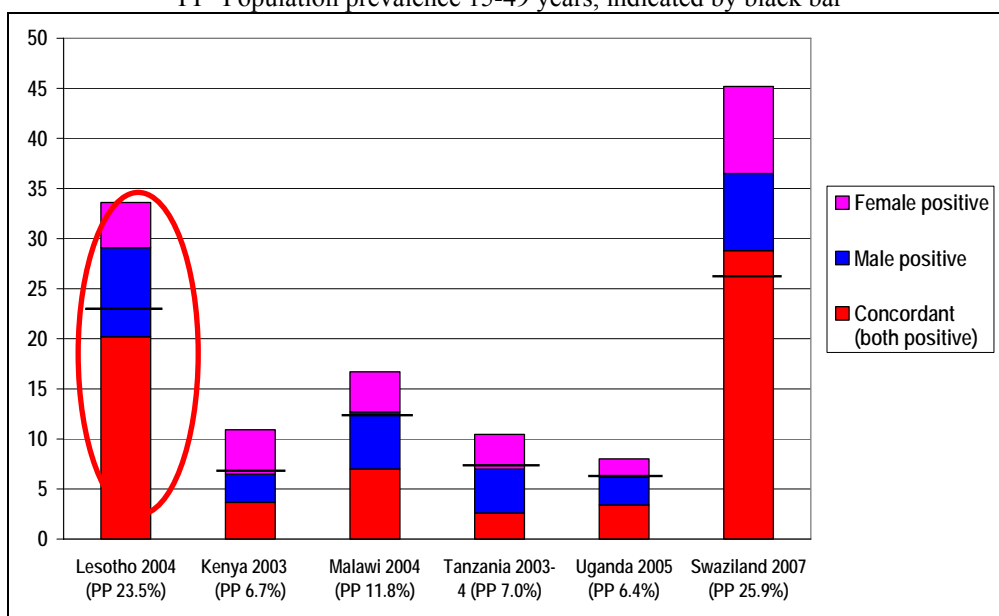
Source: LDHS, 2004 (Table 12.5)

3.3.8 Heterogeneity in couples (discordant couples)

A third of all couples are HIV positive (at least one of the two partners infected). More than 40% of these couples are discordant couples, i.e. only one partner is HIV positive. Furthermore, 14% of all infected couples are “discordant female”, where the woman is infected and not the man, and 27% are “discordant male”, where the man is infected and not the woman. Concordant positive couples (both are HIV positive) are often urban and educated. Discordance varies significantly in East and Southern Africa - see figure 19.

Figure 19. Discordance in HIV status among cohabiting couples across countries (2007)

PP=Population prevalence 15-49 years, indicated by black bar



Sources: Corno & de Walque (2007:43), and Swaziland DHS (2007).

In summary, despite some differences in HIV prevalence, Lesotho’s epidemic shows much **homogeneity**:

- All districts, both sexes, and most age groups had HIV prevalence above 15% in the 2004 DHS (except females 15-19 and males 15-24)
- Women and men in all wealth, education and migration strata have HIV prevalence of at least 15%
- All but one ANC sentinel site reported HIV prevalence above 15% in 2007

3.4. Trends in HIV incidence

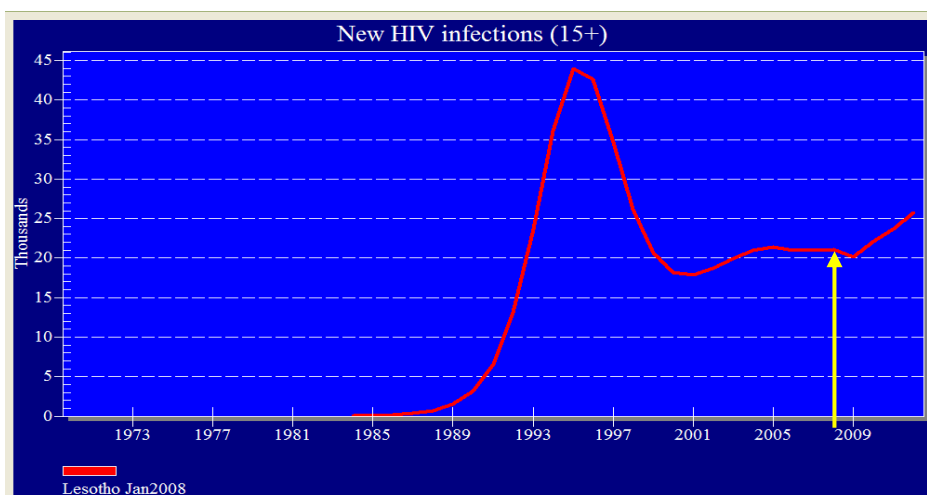
An important focus of the MoT study is to assess HIV incidence and the epidemiology of incident (new) infections. *Prevalence* is not an ideal measure to understand current transmission dynamics: changes in prevalence lag behind real changes in risk, particularly at older ages. Because of the many years between HIV infection and mortality, prevalence usually continues to rise for some years after incidence has started to fall. This is exacerbated with the advent of ARVs, which increase life expectancy of PLHIV on treatment. But HIV incidence data are not readily available. Therefore, it is important to investigate and understand HIV incidence trends using proxy and modelled data, in the absence of actual incidence data.

There are no measured incidence data available in Lesotho, due to a lack of sero-surveys conducted at repeated intervals in population cohorts.

- Indirect HIV incidence estimates are sometimes made based on prevalence data from young people aged 15-24 years, by using prevalence data by single year of age and assuming that HIV prevalence differences between the age strata represent incident HIV infections (Ghys *et al.* 2006, Zaba *et al.*, 2000). However, this method is not applicable in older age groups, in which AIDS-related mortality has a major impact on HIV prevalence levels. Lesotho has observed prevalence trends in 15-24 year old ANC clients and concluded that there is **a decreasing trend in new infections in young women** beginning a few years ago (figure 9).
- Another approach to estimating incidence has been the use of a laboratory based method that can distinguish recent from long-established infections (BED capture enzyme immunoassay,). To date, the **BED capture enzyme immunoassay has not been used in Lesotho**. Detailed adjustment procedures have been defined for its use in estimating incidence in cross-sectional population based surveys (Hargrove *et al.* 2008).
- National estimates of incidence have been obtained for Lesotho from the **Spectrum model** (NAC, 2008a – among the input data were age specific prevalence data and ART statistics; several assumptions were made on e.g. estimated survival period from infection to ART need and to death – see Stover *et al.*, 2008 on Spectrum model)

Annual HIV incidence in adults has stabilised at approximately 1.7%. In the 2008 Estimation Workshop, Spectrum and EPP software were used to produce incidence curves for adults and children. **Adult peak incidence was 3.6%, in 1995** (44,000 new infections per approximately 1.22 million adults, figure 20). In 2007, there were an estimated 21,000 new infections in adults (18,900-22,500) -- an estimated annual incidence of about 1.7% in 2007 and in 2008 (*or 58 new infections in adults each day*). This means that out of 1000 sero-negative people, 17 will be HIV positive after 12 months. **Please note that figure 20 forecasts a potential increase in HIV incidence after 2009.**

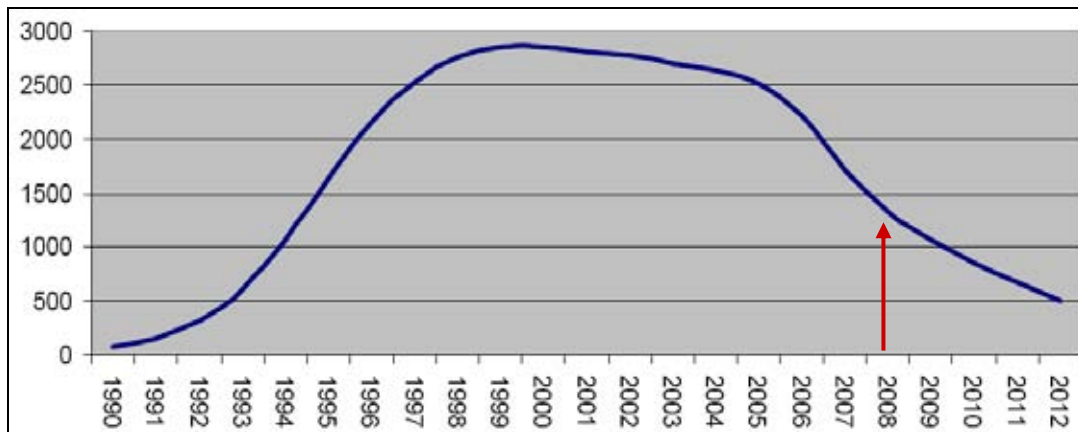
Figure 20. Number of new HIV infections among adults in Lesotho (2008)



Source: NAC, 2008a (National HIV and AIDS estimates and projections)

Annual HIV incidence in children has halved in the last 8 years to 0.17% - in children aged 0-14 years, new infections have dropped from an estimated 2,800 in year 2000 to an estimated 1,700 in 2007 and 1,300 in 2008 (modelling workshop) – see figure 21. Assuming there were 750,000 children aged 0-14 years in 2007-08 in Lesotho, this implies an estimated annual incidence of 0.17% in children in 2008 (*or 4 new infections in children each day*). There are several reasons for this drop, including the decreased incidence in adults which reduces the risk of MTCT and infection via other transmission pathways. In addition, PMTCT uptake has increased rapidly to 31% in 2007 (NAC & UNAIDS, 2008a:26). However, in 2008 there were still an **estimated 230 more new HIV infections than AIDS-related deaths in children**, and so a continued increase in the total number of children with HIV.

Figure 21. Number of new HIV infections among children in Lesotho (2008)

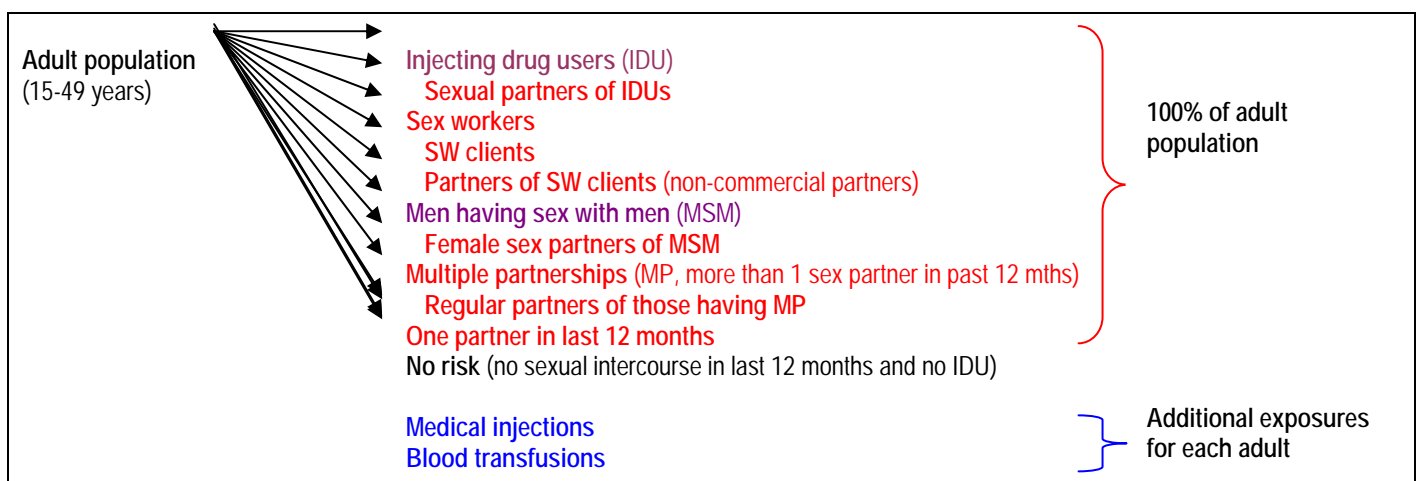


Source: NAC & UNAIDS, 2008a:26 (UNGASS Report 2007)

3.5. Main sources of new HIV infections (heterosexual transmission)

Knowing the sources of new HIV infections is important, as this should influence the focus of HIV prevention policies and programming. Using the **UNAIDS HIV Incidence Model**, sources of new infections have been modelled and the main results are presented in this section and section 3.7 (transmission other than heterosexual). The Incidence Model is a new tool and requires detailed data. As many of the data required by the model are not available on a national scale (through population-based studies or cohort studies) or not available at all, some proxy data or estimations are necessary. For this reason, the model results should be triangulated with other epidemiological evidence, so as to ensure that model results are interpreted appropriately.

Definition of risk groups used in the HIV incidence model (heterosexual transmission in red):



In the model, every person aged 15-49 is allocated to a risk group based on reported sexual behaviour and main exposure to HIV. The model makes assumptions about transmission pathways between the risk groups, for instance, it assumes that all infections in clients of sex workers come from sex workers (this is a simplification for modeling purposes and might not be true in reality).

The UNAIDS incidence model in its current version has several limitations, e.g.

- The model does not take into account the distribution of behaviours within risk groups
- The model does not distinguish between multiple serial and multiple concurrent partners among people with multiple partners (the MP subpopulation)
- The calculations use the best current estimates for transmission probabilities per act (male/female and vice-versa) and the influence of STIs and male circumcision on transmission risk, but these coefficients are under constant review

The incidence model was applied in a participatory modelling workshop of stakeholders in July 2008 and reviewed in a second workshop in October 2008. The following section summarizes the main findings of the model application (see **annex 1** for further information). The application of the model was limited by the availability of local data, as the following list summarises:

MAIN DATA GAPS IN THE APPLICATION OF THE INCIDENCE MODEL

Population size estimates: Lack of data for IDU and MSM populations; uncertainty of existing estimates for sex workers

Sexual partnerships: Unknown number of partners of IDUs, MSM, sex workers (commercial/other partners), and of those with >1 partner.

HIV prevalence: No data for IDU, MSM, SW, and their respective partners

STI prevalence: No data for IDU, MSM, SW, and their respective partners

Annual frequency of coitus: No local data for any of the groups

Annual frequency of injecting drugs, and frequency of using safe injecting equipment (IDUs): No data

Prevalence of condom use: No data for IDU partners, MSM and their partners.

Full circumcision: Proportion of men 15-49 with full ('protective') circumcision unclear

Data on sexually active heterosexual individuals:²⁹ Numbers (M/F 15-24 and 25+), number of partners, HIV and STI prevalence, frequency of coitus, condom use, sexual mixing between the two age groups within each of the risk groups (MP & One partner groups) not known.

Key issues in the application of the model were:

- **Definition of heterosexual populations with lower and higher risk behaviours** - it was decided that lower risk sexually active individuals are those with one partner (last 12 months) and higher risk are those with more than one partner (last 12 months), based on evidence on HIV infection risk
- **Data sources for MP frequency** (see also Section 3.6.1.4.) - the best two sources were used (2004 DHS, 2007 CIET study) and two model scenarios were produced, as well as a sensitivity analysis using both data sources (see **annex 1** for the sensitivity analysis)
- **Transmission probabilities for HIV** – there is some evidence that transmission probabilities might be higher in Southern Africa than elsewhere³⁰, and this parameter was therefore varied in the

²⁹ Data required for estimating incidence in sexually active males and females aged 15-24 and 25+ (model spreadsheets 2 & 3)

³⁰ E.g. Pettifor et al. (*Highly efficient HIV transmission to young women in South Africa, AIDS 2007, 21:861–865*), finding very high per-partnership probability of HIV transmission from men to women in South Africa; and Auvert et al. (*HIV infection among*

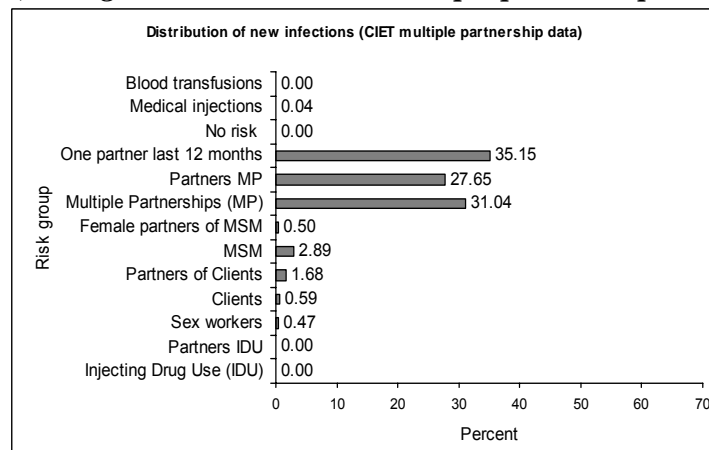
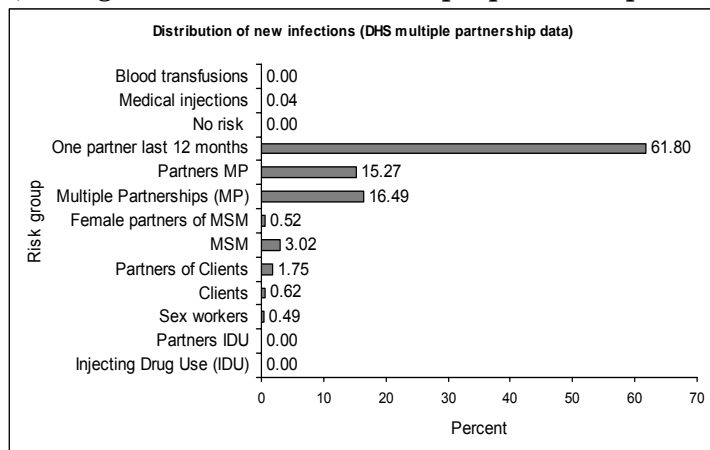
sensitivity analysis. This also allowed this model's number of predicted infections to approach the number predicted by the Spectrum model (for 2008: 18,900-22,500).

The two versions of the models using different data sources for MP frequency and the results of the sensitivity analysis are shown in **appendix 1**. Figure 22 gives the summary of all risk groups and estimated contribution to annual incidence (using doubled default transmission probability).

Figure 22. Distribution of new infections by mode of exposure in Lesotho (2008)

a) Using 2004 DHS data on multiple partnerships

b) Using 2007 CIET data on multiple partnerships



Source: UNAIDS incidence model Lesotho, 2008. Both graphs use default transmission probabilities x2.

Summary of incidence modelling results (all heterosexual transmission pathways):

Heterosexual transmission of HIV – 97% of new infections

- Individuals with one sex partner (last 12 months): 35.2% – 61.8%
 - Individuals with more than one sex partner (last 12 months): 16.5% – 31.0%
 - Partners of individuals with more than one sex partner: 15.3% – 27.7%
 - Partners of clients of sex workers: 1.7% – 1.8%
 - Clients of sex workers: 0.7%
 - Sex workers: 0.5%
- } **Multiple partner behaviours: 32-59%**

Interpretation

The model therefore predicts that **individuals who report one sexual partner in the last 12 months contribute most to the number of new infections in Lesotho in 2008** (note the very wide uncertainty bounds). This is because it is the **most populous risk group** in the model (comprising of 514,000 individuals in the DHS scenario). The new infections arise through **HIV discordancy in couples, lack of condom use in steady couples, and possibly secret sexual partners** which were not declared in the surveys.

Multiple partner behaviours concern two risk groups, those with multiple partners, and their steady partners who inadvertently become part of a sexual network. It is estimated that these MP behaviours are responsible for 32-59% of all new infections.

According to the estimates, sex work (SW, SW clients and their partners) is responsible for about 3% of new infections in 2008.

youth in a South African mining town is associated with herpes simplex virus-2 seropositivity and sexual behaviour. AIDS 2001; 15:885–898), finding a per-partner HIV transmission probability estimate close to 1.0 for young women in South Africa.

3.6. Factors impacting on heterosexual transmission of HIV

Given the high percentage of transmission through heterosexual contact, the next section looks in detail at factors that impact the rate of heterosexual transmission of HIV. Data about factors at the three conceptual levels introduced in the methodology chapter are synthesised here: at individual and couple level, at the community level, and at the structural level.

3.6.1 Factors at the individual and couple level that impact the risk of heterosexual transmission

The risk of acquiring HIV through sexual intercourse at the individual level is mostly related to (Cadre, 2007):

- **Sexual practices**
 - For monogamous HIV discordant couples there is a relatively low risk of HIV transmission per coital act (1 in 2000 to 1 in 384) (Pilcher *et al.*, 2004)
 - The risk of HIV transmission from female to male is 2-3 times higher during menstruation (Leynaert *et al.*, 1998)
 - The risk of HIV transmission during anal sex is higher than vaginal sex, and is estimated to be 1.3 times higher risk for the insertive partner, but 10 or more times higher for the receptive partner (Cadre, 2007)
 - The risk of HIV transmission during oral sex is extremely low (Campo *et al.*, 2006)
- **Male circumcision status** (see section 3.6.1.3)
- **The viral load of the HIV positive sexual partner, linked with the number of concurrent partners during the 6-8 weeks after primary infection** (see section 3.6.1.4). Variation in viral load (the concentration of HIV in the blood and other fluids) is recognised as a significant factor contributing to the likelihood of HIV transmission and acquisition. It has been established that HIV concentration in the blood is similar to HIV concentrations in genital secretions and semen. High viral loads occur in the first six to eight weeks of HIV infection, before stabilizing at lower concentrations for a long period (during this period, viraemia and viral load in genital secretions fluctuate to some extent, depending on co-infections, hormone levels, nutritional status, etc). Viral load increases again in the later phase of HIV infection when the immune system is weaker.
- **The correct use of a barrier method for HIV prevention** (see section 3.6.1.5 on condom use)
- **The susceptibility of the person exposed to the virus – e.g. presence of other STIs that would facilitate viral entry, or increase viral load** (see section 3.6.1.6 on STIs)
- The pathogenicity of the virus (there is evidence that some viral clades may be more virulent)³¹

Biological susceptibility during unprotected sex is not sufficient on its own, to bring about the high levels of HIV prevalence seen in Southern Africa (Cadre 2007). It is the increased risk of transmission that occurs in conjunction with a range of biological and behavioural co-factors that exacerbate overall risk and increase HIV incidence – in particular **viral load and concurrent sexual partners**.

Data from Lesotho³² on important individual level factors – marriage, sexual debut and behaviour, male circumcision, multiple concurrent partners, condom use, and STIs – are presented on the following pages.

³¹ John-Stewart *et al.* (2005). Subtype C is associated with increased vaginal shedding of HIV-1; *J Infect Dis*, 192, 492-6.

³² The three main sources of information on sexual behaviour in Lesotho are: i) **2004 Demographic and Health Survey** (DHS) which sampled 7,095 women aged 15-49 and 2,797 men aged 15-59 from 8,592 households covering 405 sample points (enumeration areas) throughout the country; ii) **2002 Behavioural Surveillance Survey** (BSS) conducted among 7179 respondents drawn from seven populations (1750 youth in-school aged 15-19, 2522 youth out-of-school aged 15-24, 765 miners, 713 taxi drivers and assistants, 496 soldiers, 643 low income migrant women and 290 female sex workers); and iii) **2007 CIET national KAP Survey** which sampled 2,097 adults (16-60) and 11,743 in-school youth (8-17+ years) in 30 sites of which 23 rural.

3.6.1.1. Marriage patterns and polygyny

Marriage trends are changing towards older age of first marriage for men and women - the median age at first marriage has gone up in the last 2 decades, for women from 18.3 years (45-49 year age cohort) to 20.0 years (25-29 year cohort), and for men from 24.5 years (50-54 year cohort) to 25.9 years (30-34 year cohort) (LDHS 2004). Among people in their 40s, only 4% of women and 6% of men had never married, showing that marriage has been almost universal in Lesotho. In fact, marriage was traditionally an “*indispensable social and economic partnership ... more than a sexual unity*” (Coplan, 1991:177). Today, men find it increasingly difficult to afford the *bohali* (bride wealth) and women become more economically independent with newly created employment for women. The resulting decline in marriage rates in Lesotho is mirrored by changes in the sub-region. According to DHS 2004 data, **cohabitation (living together out of wedlock) is rare**, only 0.7% of women and 0.4% of men reported cohabiting with a partner.

Increased length of pre-marital sexual life is resulting from postponement of marriage and earlier sexual debut of men (see section 3.6.1.2.) - the DHS 2004 found that among never-married young women and men (15-24), a significant proportion reported having had sex in the past 12 months (28% of women and 48% of men), and about half of these acts were protected (56% for women and 50% for men).

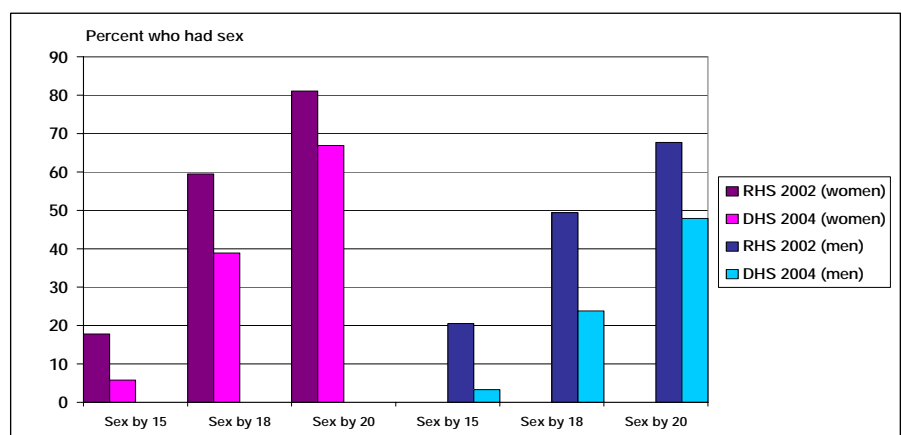
Is marriage protective against HIV? This question can only be addressed by multivariate regression analysis in order to control for confounders such as age, socio-economic status. Different studies have made different observations: The multivariate analysis of the 2004 DHS data showed that currently married men – but not women - are significantly more likely to be HIV positive than currently single men ($p < 0.05$) (Corno & de Walque, 2007:11). The multivariate analysis of the ALAFA 2007 study (comprising 89% females) revealed that unmarried apparel workers are 2.1 times more likely to be HIV positive than married workers (ALAFA, 2008:21). Based on the available analyses, we can not reach conclusions on the effect of marriage on HIV risk of men and women in Lesotho.

Polygynous unions are rare among Basotho - according to the 1977 Lesotho Fertility Survey (LFS) only 9% of married women were living in polygynous unions and only 1% of them had more than one co-wife (BOS, 1981). According to the 2004 DHS, 5% of men live in polygynous unions, with a notably higher proportion among men living in Thaba-Tseka (23%). There was no evidence in the DHS that HIV prevalence was higher in men in polygynous unions (very small number of cases), and district variations in polygyny did not correlate with HIV prevalence levels.

3.6.1.2. Age at first sexual intercourse

Data are not conclusive on changes in age at first sex. According to the DHS, 15% of young women (15-24) and almost twice as many young men (27%) in Lesotho had sex by age 15. By the age of 18, 47% of females and 52% of males have had sex. Short term trends based on the RHS 2002 and the DHS 2004 (figure 23) suggest a postponement of first sex in women and men, and first sex also appears to become slightly safer due to small increases in condom use. However, these falling trends are *not supported by the data from the two CIET surveys in 2002 and 2007*, which found that 33% (2003) and 34% (2007) of youth (12-17) reported having had sex, i.e. no change (CIET 2008:44).

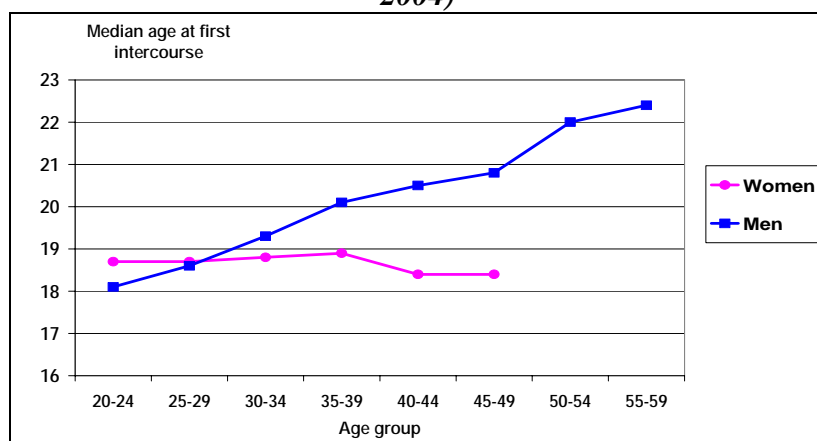
Figure 23. Age at first sexual intercourse reported by adults in Lesotho, 2002 and 2004



Sources: RHS 2002, DHS 2004 (Table 6.5)

Long term trends (the last 25 years) of median age at first sex suggest a decrease for men and a stable level for women - the trends in median age at sexual inception were explored by looking at different age cohorts in the 2004 DHS (note that such long-term trend analysis can be affected by recall bias). Age at first sex among men has been declining over time, from 22 years for men in their 50s to around 18 years for men in their 20s (LDHS 2004, see figure 24). In the absence of such a trend in females, the differential in age at first sex between males and females has basically disappeared over the last 10 years. The median age at first sex by background characteristics for women and men revealed greatest differentials by education level and wealth quintile, particularly for women. For example, women with at least some secondary education begin sexual activity two years later than those with incomplete primary education (LDHS 2004).

Figure 24. Long term trends in median age at first intercourse for women and men in Lesotho, 1980-2004)



Source: DHS 2004 (Table 6.5)

Among youth, the level of education, wealth quintile, and residence are strongly related to age at first sex, especially for young women (DHS 2004). While more than one-third of women aged 15-24 with no education had sex by age 15, the proportion declined to only 1 in 10 women among those who have completed primary education. A larger proportion of women in rural areas reported sexual debut by age 15 and 18 compared with women in urban areas. For men, the relationship between education, wealth quintile, residence, and age at sexual debut was not as strong. Both young men and young women residing in Senqu River Valley and Quthing were more likely to have had an early sexual debut, compared with other ecological zones and districts. Condom use at first sex showed increases of 7% in females and 5% in males in the last 5 years (data on 15-19 and 20-24 year age cohorts), but overall, **only a fourth of young women and men used a condom during their first sexual encounter** (DHS 2004). Condom use at first sex was very strongly correlated with education level, wealth and residence in females and males -- more educated, wealthier and urban populations had much higher levels of reported condom use at first sex.

3.6.1.3. Male circumcision

Historically, male circumcision (MC) has been part of an “initiation” process known as *lebollo*, culturally practiced in Lesotho as a rite of passage into adulthood (USAID, 2007:vi). There is a lack of clarity around how traditional MC procedures are actually carried out in Lesotho. **Traditional circumcision** is performed in different ways, and anecdotal evidence suggests that it may be incomplete by bio-medical standards, with perhaps only a small incision cut into the foreskin.³³ **It is currently estimated that about 10,000 initiates are circumcised each year by traditional “surgeons”, and about 4,000-5,000 men are circumcised in the formal health sector** (USAID, 2007:9).

“Male circumcision” as practiced in Lesotho does not confer the expected protection against HIV infection: Based on the 2004 DHS data on male circumcision (MC) and HIV prevalence, and multivariate data analysis of the DHS data by Corno & de Walque (2007), it can be said that the relationship between

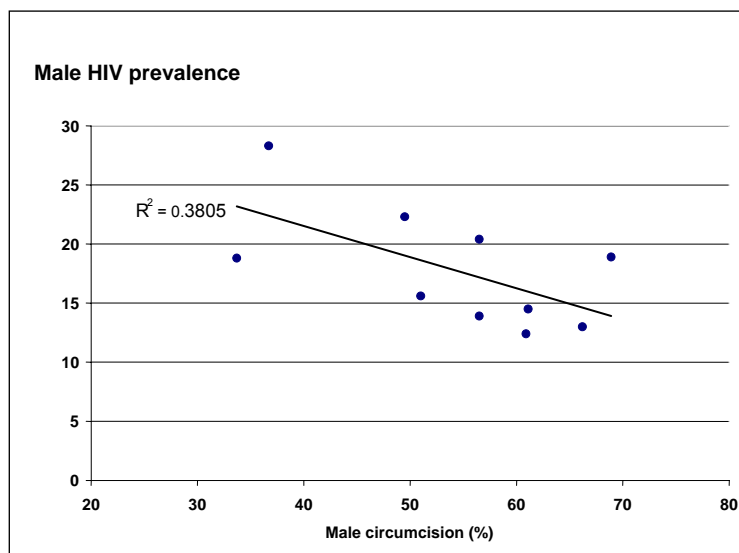
³³ Anecdotally there are also regional varieties of this traditional procedure (pers. comm. M. Hildebrand)

MC and HIV levels in Lesotho does not conform to the usual pattern of much higher rates among uncircumcised men than circumcised men (as indicated above, the men reported as “circumcised” in the DHS were probably a mix of traditionally circumcised men and men who were circumcised in a clinic/hospital). HIV prevalence was substantially higher among circumcised men (23%) than among men who are not circumcised (15%), and the lack of a protective effect of MC remained after controlling for confounding. Possible explanations are:

- The traditional MC performed in Lesotho may not involve a complete removal of the foreskin but rather a more symbolic cut;
- Increased risk taking by circumcised males, since MC is a rite of passage to manhood (Corno & de Walque, 2007, found in the multivariate analysis that MC was negatively associated with virginity, controlling for age, suggesting that circumcised males are more prone to engage in sexual activity).; and
- The possibility that MC is done in unhygienic conditions.^{34, 35}

The DHS revealed large variation in MC rates between districts, with the highest proportion of MC found among men who live in Quthing (69%) and Mokhotlong (66%), and lowest in men in Maseru (34%) and Leribe (37%). District level analysis shows a weak association between MC prevalence and level of male HIV prevalence (figure 25). Men living in rural areas are more likely to be circumcised than those living in urban areas, and there is a distinct decline in MC with increasing education and wealth quintile.

Figure 25. Circumcision and HIV prevalence in males in Lesotho (district level, 2004)



Source: LDHS 2004 (district level data, Tables 11.14 & 12.9)

3.6.1.4. Multiple, long-term concurrent sexual partners

Both the UNAIDS ‘Expert Consultation on Behavior Change’ (2006) and the SADC report from the ‘Expert Think Tank Meeting on HIV Prevention in High-Prevalence Countries in Southern Africa’ (2006) concluded that having multiple concurrent partners (MCPs) is one of the main drivers behind the epidemic in Southern Africa. The following evidence is available in Lesotho:³⁶

³⁴ Ambrose (1997): “Deaths in initiation school occur, both as a result of ordeals inflicted on initiates, and as a result of the circumcision operation itself, which is apparently often incompetently performed by inexperienced circumcisers. Others attending initiation schools suffer serious mutilations of their genitals. [...] The training of circumcisers in modern medical procedures is not an easy task, given that according to tradition they must keep secret their practices and all matters relating to initiation schools”.

³⁵ Brewer *et al.* (2007) suspects the use of shared, contaminated cutting instruments in circumcision, and possibly contaminated sharps or other equipment and supplies in formal or informal healthcare settings where MC complications may be treated.

³⁶ Available data in Lesotho have two drawbacks: It is not clear if the reported multiple partnerships are concurrent or sequential; and summary comparisons for trends are difficult due to different denominators and data collection methodologies – it has for instance been observed that shorter recall periods may provide a higher MCP prevalence than a 12-month recall period (D. Halperin, World Bank presentation 2008).

The number of sexual partners is a very strong determinant of HIV risk - in the DHS 2004, HIV prevalence was strongly and positively correlated with the number of sexual partners in the past 12 months for women (χ^2 for trend 67.4, $p < 0.0001$) and men (χ^2 for trend 24.0, $p < 0.0001$). In contrast, there was no correlation between HIV prevalence and the number of *higher-risk* sexual partners (not a spouse and not cohabiting). In the ALAFA study (2008:17, bivariate analysis), apparel workers with MCPs had significantly higher HIV prevalence (47.4%) than those who were faithful to one partner (42.2%, $p < 0.05$).

One-time encounters ('one-night stands') appear to be less frequent than longer-term secondary relationships – 5.7% of ALAFA workers reported a one-night stand in the last 6 months, whereas 19.4% reported MCPs (ALAFA, 2008:16).

Having multiple sexual partners is frequent but possibly declining –

- In a study conducted in 1989-1990,³⁷ 39% of women and 55% of men reported having had more than one regular partner in the last year (WHO, 1995). In the 2004 DHS, among those who had sex in the previous 12 months, 11% of women aged 15-49 and 29% of men aged 15-59 reported having had more than one sexual partner in the 12 months preceding the survey – **suggesting a decline of 28% (women) and 26% (men) over 15 years.**
- Surveys conducted in 2002 (baseline) and 2007 (follow-up)³⁸ by CIET found that among adults with at least one sexual partner, 44% reported more than one partner in 2002 and 30% reported more than one partner in 2007 – **suggesting a decrease of 14% over 5 years** (CIET, 2008).³⁹ The prevalence of multiple partners in 2007 was 21% for females and 48% for males (estimated from CIET 2008 data), and it was higher among females and males with education above primary.

See **annex 3** for summary table on MCP frequencies in Lesotho.

Concurrency is high in Lesotho – data on multiple partners in the last month reveal true concurrency (a very risky practice due to hyperinfectivity in the first 6-8 weeks of primary HIV infections).

- In 2002 (RHS), 5% of women aged 12-49 and 20% of men aged 12-54 had more than one sexual partner in the last 4 weeks.
- In 2007 (CIET), among adults with at least one partner, **16% of women and 36% of men** had more than one current sexual partner. In the same sample in 2007, **11% of women and 27% of men** (estimated from CIET 2008) had more than one sexual partner in the last month (24% overall).⁴⁰
- In the 2007 ALAFA survey, **17% of female workers and 38% of male workers currently had MCPs** (ALAFA, 2008:16).

Due to different denominators, comparison across the surveys is not possible, but it can be concluded that:

In Lesotho, concurrency is exceptionally high with an overall MCP prevalence of 24% in 2007, compared to 10% in the region (CIET, 2008).⁴¹

Married men and women maintain extramarital relationships -

³⁷ Details about these data could not be identified, such as age group of respondents, or whether it concerned all respondents or just those sexually active (copy of the survey report could not be obtained).

³⁸ National KAP survey in 30 sites linked to the "Soul City regional programme audience reception and impact evaluation". Information was collected from 16-60 year old household respondents (2,367 in 2002-03 and 2,097 in 2007) and standard 3-form 2 school children (11,155 in 2002-03 and 11,743 in 2007). The same surveys were conducted in 10 SADC countries leading to regional averages.

³⁹ The proportion is substantially higher in Lesotho than the regional average of 25% in 2002 and 19% in 2007.

⁴⁰ The frequencies ("current" being higher than "in last month") do not make sense since "in the last month" should include "current" as well as others in the last month, emphasizing the importance of interview technique in getting answers.

⁴¹ Indicator "more than one current sexual partner (adults with at least one partner)". Regional average of 10% includes Botswana, Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe (CIET, 2007 p42).

- 10% of married women and 23% of married men reported two or more partners in the past 12 months (DHS 2004), and only one third of higher risk intercourse was protected
- In the ALAFA survey, 42% of married male workers had MCPs (ALAFA, 2008:16)
- In the same survey, married workers were 2.2 times more likely to have MCPs compared to unmarried workers, and male workers were 1.7 times more likely to have MCPs than female workers (multivariate analysis, ALAFA, 2008:23)
- 32% of sexually active miners, 54% of sexually active soldiers, and 59% of sexually active taxi drivers reported having had multiple partners in the past 12 months (BSS 2002); and 41% of those with multiple partners were married.

Extra-marital relationships appear to be a long-standing, common practice in Lesotho.⁴² The Sesotho term for extra-marital partner is *Nyatsi* – an important element in the relationship is the exchange of gifts or small cash transfers, and the relationships are often carried out over a substantial period of time.⁴³

Social norms about MCPs are permissive and supportive -

- The UNICEF 2005 report “*Speaking out! Views of young Basotho on gender, sexuality, HIV/AIDS, life skills and education in Lesotho*” reported on attitudes towards MCPs. In the age group 10-12, only 3% of females and 6% of males stated that they would like to have more than one lover should the opportunity present itself. This figure rose to 21% amongst females aged 22 years or older, and 40% amongst males in the same age group.
- Multiple partnerships and sexual risk taking appear to start young: 52% of school-going youth (12-17) with sexual partners had more than one partner, and consistent condom use was only 34% (CIET 2007).
- The preliminary findings of the qualitative study *Gender and Multiple and Concurrent Sexual Partnerships in Lesotho* (NAC, UNAIDS, FHI 2008)⁴⁴ indicate that a number of different social and economic drivers are perceived to contribute to the formation of concurrent relationships such as: desire for money; economic need; few disincentives; influence of peers and family; population mobility; dissatisfaction with stable partner; sexual greed; and, the role of alcohol. The study also found that people perceived “being faithful” to mean being supportive and respectful; thus, a person can have other sex partners and still behave in a “faithful” way towards each partner.

Out of the total 92 in-depth interviews with people who self-identified as currently being in a relationship, about one third reported at least one concurrent relationship in the last 12 months. Respondents who had more than one partner in the last twelve months tended to have concurrent, rather than sequential partnerships. Those who reported concurrent relationships, on average spent about 3 months in such partnerships in the last 12 months.

3.6.1.5. Condom use

Condom use in higher-risk relationships has increased but remains relatively low: A ubiquitous observation is that condom use is higher in relationships which are perceived as higher risk (such as commercial and casual relationships) and lower in relationships which are perceived as low risk (long-term, steady - albeit possibly multiple and concurrent - relationships). Among men who paid for sexual intercourse in the past year, 58% used condoms at the most recent paid sex (small number of cases). In

⁴² Ernest Mabille cited by Maloka T (1997:103) noted in 1905 that: “Prostitution as a social evil is unknown, but adultery is general. Every man has his mistress and every woman her lover” “Khomu Lia Oela: Canteens, brothels and labour migrancy in colonial Lesotho 1900-40”, in: *The Journal of African History*, 38(1):101-122.

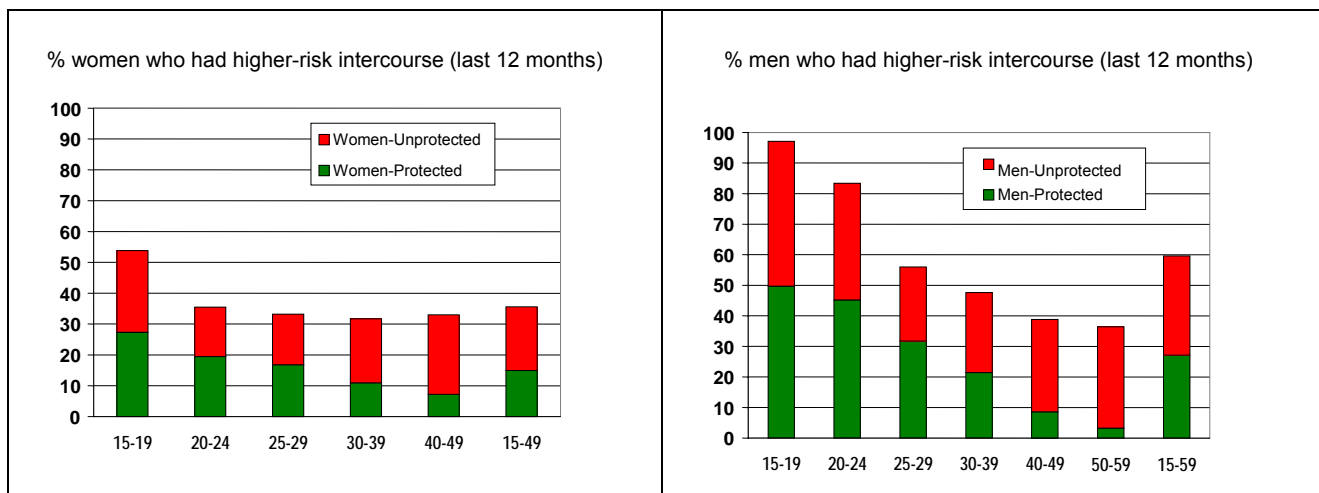
⁴³ Tukon 2003; Coplan 1991; Spiegel 1991; Murray 1981; Magrath 2005.

⁴⁴ In this study a total of 30 focus group discussions and 92 in-depth interviews were conducted in 5 districts in Lesotho. For a detailed methodology please see NAC, UNAIDS, FHI *Gender and Multiple and Concurrent Sexual Partnerships in Lesotho* forthcoming February 2009.

relationships with partners who were neither a spouse nor cohabiting (termed ‘higher-risk’), 42% of women (15-49) and 46% of men (15-59) reported using a condom (DHS, 2004).

Figure 26 presents data on higher-risk intercourse and condom use. A high proportion of men report higher-risk sex, and a considerable part is unprotected, particularly among older men. Women report less higher-risk intercourse, but again, the proportion of acts which are unprotected is greater among older women. Many men still hold negative attitudes towards condoms, believing that condoms diminish sexual pleasure (45%), are inconvenient to use (37%), are embarrassing to buy (34%), but also that people who use condoms are not faithful (33%), or that condoms contain HIV (27%).

Figure 26. Protected and unprotected higher-risk intercourse among women and men in Lesotho, 2004



Source: LDHS 2004 (Tables 11.8.1 & 11.8.2.). Higher risk = Partner not a spouse and not cohabiting, can include multiple and concurrent partners

The CIET surveys of 2002 and 2007 found that consistent condom use with a **non-regular partner** had gone up among sexually active adults **from 21% to 48%**⁴⁵ **in the five-year period** (considerably higher than the regional multi-country value of 36% for 2007). In 2007, these condom use levels were similar in men and women, but differed significantly between individuals with primary or less education (36%) and those with above primary education (55%).

A marginal increase of condom use with a regular partner - Compared to the 2002 baseline value of 17%, condom use with a regular partner was reported by 20%⁴⁶ of sexually active adults in 2007 (CIET 2008). Again, the 2007 condom use levels were similar for men and women, but differed significantly between individuals with primary or less education (13%) and those with above primary education (29%). The CIET surveys also found that in 2002, 48% of adults would not have sex if their partner refused to use a condom, and the level dropped to 39% in 2007 (this is an undesired change; in 2007, fewer adults seem to be able to make a decision about protecting themselves and to implement their decision compared to 2002).

“Although condom use has also likely contributed to HIV decline in some generalized epidemics, there is no evidence of a primary role. This is because consistent condom use has not reached a sufficiently high level, even after many years of widespread and often aggressive promotion, to produce a measurable slowing of new infections in the generalized epidemics of Sub-Saharan Africa. When most transmission occurs within more regular and, typically, concurrent partnerships, consistent condom use is exceedingly difficult to maintain” (Potts et al., 2008).

⁴⁵ A very similar level was found in the 2007 ALAFA study: condoms were used consistently by 46% of workers in short-term relationships (ALAFA, 2008:18).

⁴⁶ ALAFA study: only 12% of married workers used condoms consistently with their spouse (ALAFA, 2008:18).

3.6.1.6. Sexually transmitted infections

STIs have been regarded as an important driver of the epidemic over many years - the Mwanza study reported a nearly 40% reduction in HIV when STIs were treated through syndromic management, but subsequent trials found **no effect of STI treatment on HIV prevalence** (Grey & Wawer, 2007). Two recent RCTs to prevent HIV acquisition by treating genital herpes have been similarly discouraging (Cohen, 2008).

- STI treatment remains critical for broader public health programmes, however, the population-level evidence for impact on HIV transmission, especially in generalized epidemics, appears minimal;
- STI trends remain an important indicator for risky sexual behaviours and are therefore briefly touched upon here.

Sexually transmitted infections remain at high levels - in the DHS 2004, 15% of women and 12% of men who have ever had sex reported having had an STI, an abnormal discharge, or a genital sore/ulcer in the 12 months before the survey. Among them, 3% of women and men reported having had an STI, 12% of women and 8% of men reported having had an abnormal genital discharge, while 6% of women and 7% of men reported having had a genital sore or ulcer. Ulcerative STIs (among them genital herpes, chancroid and syphilis) are of particular concern - in a large systematic review of sexual risk factors in Sub-Saharan African HIV epidemics, the Herpes simplex virus-2 (HSV-2) was found to be the single most important risk factor for HIV infection (Chen *et al.*, 2007). Other research results from South Africa suggest that there is a rapid increase in the proportion of genital ulcer disease (GUD) which is attributable to HSV-2, while the relative importance of syphilis and chancroid in GUD is decreasing (Htun *et al.*, 2001).

Among ANC clients, the overall syphilis prevalence was 1.4% in 2007, and notable peaks were in those aged 40-44 years (2.7%) and those separated/divorced (13.6%).

3.6.1.7. Sexual behaviour in key sub-populations at risk of HIV

Although Lesotho experiences a hyperendemic situation with high population prevalence, some socio-economic sub-populations are particularly prone to HIV infection due to higher risk behaviours. **Most-at-risk populations** (MARPs) are defined as populations in which there is a concentration of risk behaviours that lend themselves to efficient HIV transmission that may then drive the majority of new infections (UNAIDS, 2007e). Behaviours that put people at greater risk of HIV infection include unprotected sex with multiple partners, receptive anal sex, and injecting drugs with shared equipment and drug preparations.

SEX WORKERS

Like elsewhere, female sex workers are a heterogeneous group of women who provide sexual services for payment. Some are full time sex workers (SWs) who undertake sex work regularly and get their entire income from it, others are part-time SWs who have other employment, are students or are unemployed. A recent size estimate conducted in 18 'hot spots' found that there are about **433 professional SWs** in the country⁴⁷ (Waterman, 2008). The report also suggested that there may be many more women available for paid sex but who do not self-identify as SWs and as not seen as SWs by the community. Sex work is condemned by society and especially part time SWs often keep their sex work secret. The report stated that male SWs and male-male sexual relationships exist, but did not present any data. The review by Waterman (2008) made the following observations regarding the sexual behaviour of SWs:

Sex workers are at increased risk of HIV infection (and transmission to their partners): In the 2002 BSS, 19% of SWs reported that they were currently married and living with their spouse. 33% reported non-paying partners in the past 12 months, and 47% said they never used condoms with non-paying partners in the same period. Many SWs don't disclose to their steady partners that they do sex work (Waterman, 2008). The SWs reported on average one client in the last day worked. They have multiple casual and concurrent partners and act as connectors in sexual networks. All their unprotected partners are at high risk.

⁴⁷ This was a rapid situation analysis involving visits to ten major towns, some border crossings and a mine. The size estimation of SW populations used the Delphi method.

Payment for sexual services leads to a compromised negotiation status with the client, which may result in higher-risk behaviours: The 2008 sex worker report states that condom use with paying clients is still not universal, that clients demand unprotected sex and pay extra money for it (Wilson, 2001, found that payment may be tripled for sex without a condom). In the 2002 BSS, only 36% of SWs consistently used a condom with clients, and 34% never used condoms with clients. Lack of correct and consistent condom use due to client refusal, dislike of condoms, insufficient knowledge/risk perception, low negotiation power and lack of easy condom access (Waterman 2008; DHS 2004; BSS 2002), remains a key risk factor for SWs.⁴⁸

Women doing sex work are marginalized and stigmatized - The 2002 BSS found that sex work is considered to be morally reprehensible, and SWs often try to keep their work secret or leave their family environment. SWs lack legal protection; the 2003 Sexual Offences Act prohibits sexual exploitation of children, but is silent on sex work and SWs. The national HIV and AIDS policy explicitly mentions SWs. SWs suffer from being stigmatized and are reluctant to attend clinics or HIV testing centres. They regard themselves to be 'shamed' by their work and are treated by clients with contempt. A statement by a SW in South Africa holds true for the Lesotho context: *"It is only a woman who is downgraded by sleeping around, not a man. Men will always retain their dignity, but women will lose dignity"* (Campbell, 2003:74).

Sex workers are highly vulnerable due to several factors:

Poverty and unemployment: Historically, the exchange of sex for money or favours has been an aspect of survival for many women in the country since the late 19th century (Waterman, 2008). Income from sex work covers diverse financial needs ranging from food to fashion and life style items (Waterman, 2008). Pay varies hugely from 'nearly nothing' to M200 (BSS). Sex work can be relatively lucrative.

Context of work: SWs operate from bars and shebeens, serving clients with diminished rational capacity due to alcohol and drug use. They also operate in the open along highways and roads, often without protection and in the darkness of the night.

Young age: Many SWs begin work when they are adolescents – as young as 15 years, making them biologically more susceptible to contracting HIV or other STIs, and less able to negotiate condom use.

Low level of education: The available data from Lesotho show that many SWs are relatively uneducated in a society in which female education is high.

Mobility and migrancy: Some SWs are highly mobile, some migrate to towns in South Africa, where they compete in the sex work market and often live in impoverished unhealthy areas. They lose the protective and controlling environment of the family and community. Wilson (2001) describes the group of about 200 **transient sex workers** who operated out of Butha-Buthe during the Katse Dam construction. Since the dam's completion, most transient SWs have migrated to Maseru, where another dam is under construction (scheduled for completion in 2017, with approximately 2,300 formal workers who are mostly migrants from other parts of the country, previously employed on the Katse project).

Presence of STIs: In the BSS 2002, 16% of SWs reported vaginal discharge in the past 12 months, and 9% reported a genital ulcer. Overall, 26% reported having had an STD symptom in the past year.

Because of the frequency of multiple and concurrent partners linked to sex work, and the lack of consistent condom use by the men who give payment in cash and in kind for sex, SWs and their partners remain a key population at risk of HIV infection. It can be assumed that in Lesotho, there are many more women who do sex work than the 443 counted in the population size estimation.

⁴⁸ Other commonly known higher-risk behaviours of SWs are: i) **Unprotected anal sex** - it is known from other SSA studies that SWs provide anal sex to clients during menstruation, while an STI is present, to prevent pregnancy, or upon client request; ii) **Physical and sexual violence, rape and gang rape** - Waterman (2008) reports that SWs frequently suffer violence from clients during intercourse, and that many SWs recognise the risk of violence including gang rape (the same reports state that SWs knew of 4 cases of murder of SWs by clients); iii) **High levels of alcohol consumption** - the 2002 BSS reports that regular use of alcohol was common among SWs (57%). The 2008 SW report concurs, saying that most SWs reported drinking alcohol, often in large quantities, invariably with clients. Some sex acts are also paid in beer instead of cash.

MOBILE POPULATIONS

The main source of data on mobile populations is the risk assessment at cross-border and dam construction sites by Wilson (2001). It addresses truck drivers, miners, informal traders and mobile sex workers. The report stresses that the sexual behaviour of men working outside their home areas differs significantly from that of men who stay home with their families, due to increased freedom and decreased exposure to their home communities' disapproval. The spouses and girlfriends of mobile men often have other sexual relationships while their husbands are away. There is increasing evidence that the *woman or the man who is left behind by the mobile partner* is also at increased sexual risk (Lurie *et al.*, 2003).

Truckers: Truckers are away from home for several days while picking up and delivering goods, and the period away from home has been shown to be related to sexual risk behaviour in other studies. No sexual behaviour data could be identified from truck drivers in Lesotho (the BSS was limited to taxi drivers and their assistants). But it is known that they are one of the main client population of SWs, and that men in occupations other than trucking also visit SWs and thus share the sexual networks of truckers. The cross-border assessment showed that truckers often choose to sleep in their vehicle or at a SW's house, rather than in a motel because it is cheaper (Wilson, 2001). In Maputsoe, truckers reported finding it inconvenient to sleep at the border, because the police do not allow their 'girlfriends' (who are mostly SWs) to stay with them. No size estimation could be identified regarding truckers. The cross-border assessment found an average of 60-70 truckers crossing the international border each day at the five main border posts.

Miners: The sexual behaviour of miners has been described (e.g. Campbell, 2003). Their lives are marked by harsh working and living conditions, high occupational risk, loneliness, a loss of status and dignity, and a need to assert their masculinity. The number of Basotho men employed in South African mines has dropped sharply in the last decade.⁴⁹ The Employment Bureau of Africa (TEBA), the mining industry's recruiting organization in Lesotho, reports that in previous decades miners from SADC countries were allowed to return home only once a year to see their families but they can do so more often now (Wilson, 2001). The cross-border risk assessment study estimated that, in 2000, 11,317 **Basotho miners visited home at least weekly, more than 60% of miners returned to Lesotho at least monthly, and another 25% returned at least every three months**, mostly to visit families in rural Lesotho. This change to more short-term migration ('accelerated oscillatory migration cycle') can lead to increased HIV transmission if MCPs are present in either the miners' or spouses' lives.

Low income migrant women and informal traders: Data on low-income migrant women come from the 2002 BSS, while data on informal traders were collected in the 2001 cross-border risk assessment. The low income migrant women had high levels of education, one in five was currently married, and almost a third had been away from home for more than a month. Half reported having had sex with a non-regular partner in the past 12 months, and 37% of these acts were protected with a condom. The informal traders described by Wilson (2001) were mostly female, but among them were also some males (e.g. retrenched miners). The majority were hawkers, selling fruit, vegetables etc., and only a few used to cross into South Africa for purchases and deliveries and generally avoided spending the night at the border post. According to Wilson (2001), the informal traders engage in casual sex with **mine workers**, since often the miners arrive at night and cannot find transportation home. The traders refer to these mine workers as *mokhotsi* (friend) or *lekhoaa* (Boss/white man), because the men have money and can buy them food and beer. Most of the informal traders said they do not use protection. The women see no need for condoms, because 'unlike sex workers', they do not charge clients, and they fear that if they insist on using protection, their 'boyfriends' might suspect them of being infected and leave them. They have regular partners (albeit as many as four).

Apparel workers: About two-thirds of Lesotho's apparel workers are migrant workers (ALAFA, 2008:14), migrating between the workplace and family home or residence of a spouse or partner. According to the 2007 ALAFA baseline study, 44% of female workers and 36% of male workers were HIV positive. These

⁴⁹ The number of migrant mine workers dropped from 101,000 in 2005 to 52,000 in 2005 according to the Lesotho Labour Statistics Report 2001-2005 (<http://www.bos.gov.ls/>, accessed 16 July 2008)

high prevalence levels are partly due to the age distribution of the industry's workforce, however, compared to 2004 DHS data, **HIV prevalence is higher in male apparel workers in their 20s than in their age peers in the general male population, and in female apparel workers (all ages) compared to the general female population (all ages).**

More data from the 2007 ALAFA study are presented in different sections of this report. Based on multivariate analysis, a key group at HIV risk is **female workers aged 25-39 years who are single and work in factories in Maseru** (ALAFA, 2008:21). The study report emphasizes that *"HIV knowledge failed to have any significant effect on reducing worker's HIV prevalence. Worker's knowledge of HIV & AIDS, while comparatively high, had no significant effect on respondents' engagement in the risk behaviours of: multiple partners, inter-generational sex, casual sex and transactional sex. The only positive influence resulting from knowledge of HIV & AIDS was increased condom use. This suggests that prevention efforts, rather than focussing simply on HIV awareness as countless education programmes have done in the past, need to be directed more to the reduction of risk behaviours and dealing with the values, attitudes and situations which underpin these behaviours"* (ALAFA, 2008:29).

Another mostly male migrant labour force is the **Basotho plantation workers** in South Africa, but no sexual behaviour data or size estimate could be identified.

There are sexual networks among members of mobile populations, as described by Wilson (2001) using the example of Mafeteng: *"Although little commercial sex work takes place in Mafeteng, casual sex is frequent between female informal traders and the taxi drivers and miners. Key informants reported extensive casual sex at the Mafeteng-Wepener border. Encounters between shop and bar employees and mobile men (usually taxi drivers and miners) occur around Van Rooyens Gate. It is hard to call these women SWs, since sometimes they do not ask for payment in the hope the men will invite them to Gauteng when they return to the mines. The miners and taxi drivers interviewed did not use condoms with either their wives or their girlfriends. They admitted having had STIs and not telling their wives"*.

3.6.2 Factors at the community level influencing the risk of heterosexual HIV transmission

3.6.2.1. Gender roles and discrimination

Women in Lesotho are more educated than men; female enrolment exceeds that of males at all levels of education. Despite women's higher educational attainments and literacy, **over half of men interviewed (and 38% of women) thought that boys are more intelligent than girls** (RHS, 2002). Although the status of women has been strengthened by legislation (see chapter 4 on policy context), attitudes regarding women's roles and position in society change at a slower pace: in the 2006 Afro-barometer survey (Green & Chikwanha, 2006:11), 57% of men and 40% of women agreed with the statement that *"women have always been subject to traditional laws and customs, and should remain so"*. In the same survey 45% of men and 28% of women agreed that *"men make better political leaders than women, and should be elected rather than women"*.

Gender discriminatory attitudes persist - the 2005 sexual violence survey found that women hold many negative attitudes and myths which reflect the power relations within the couple and the family. The majority of women agree that if a man has paid the bride wealth for his wife, he owns her, and if a woman works she should give her money to her husband, and that a man should have the final say in all family matters (Sechaba, 2005).

Men have sexual entitlements and women are socialised accordingly. In a recent survey, 47% of men and 40% of women said that women do not have the right to refuse sex with their husbands and boyfriends (Andersson *et al.*, 2007). *"If a wife - of any marriage type - denies her husband sex, he would take the woman to the chief's place where the woman would be reminded that she has to satisfy her man's needs"* (female respondent, sexual violence survey 2005:24). The 2005 Speaking Out! Youth Survey suggests the existence of double standards in Lesotho in the differential ways in which parents bring up their sons and

daughters; and the way teachers treat male and female students (GOL, 2005). Girls are brought up to be submissive; boys are brought up to be strong and assertive and to express their views. Parents expect better standards of behaviour from their daughters than from their sons. Girls are encouraged and supported to go to school while thousands of households across Lesotho make sons herd livestock instead of going to school. Furthermore, the survey showed that young people exhibit **sexual double standards** in their opinions on sexual faithfulness - young people were more against a girl having multiple sexual partners than they are of a boy having multiple partners.

3.6.2.2. Social norms

Sesotho social structure is traditionally patrilineal and partrilocal. Values and norms have been developed to uphold men's privileges and constrain women's autonomy (Leclerc-Madlala, 2008). Historically, husbands had large degrees of jural right over women and children.⁵⁰ This is believed by some to be a source of gender related violence, since some husbands assume that it gives them absolute rights over their wives.

Age-disparate relationships

Most studies on what is referred to as cross-generational or intergenerational sex (relationships where there is a 10 year age gap or more between partners), or age-disparate relationships (where the age gap is anything more than 5 years) emphasize that asymmetries within sexual relationships cannot be understood as simply the outcome of individual behaviour or the individual attributes of those involved (Leclerc-Madlala, 2008). Rather, these relationships are negotiated within a wider social, cultural and economic context, reinforced by family and peer pressures, social and economic institutions, gender inequalities and power relations.

Age-disparate relationships are frequent: Many young women have considerably older male partners. The RHS 2002 reported that in 53% of sexual relationships, the man was at least 5 years older than the woman, and in 19% of relationships, the man was at least 10 years older (respondents were aged 12-24 years). The LDHS 2004 found that of women aged 15-19 who had higher-risk sex in the past 12 months, 7% indicated that it was with a man 10 years or more older than themselves. Women in lower wealth quintiles and in rural areas seemed more likely to engage in age disparate sexual partnerships (LDHS, small number of cases restrict analysis). The ALAFA study found that 18% of apparel workers had sexual partners more than 15 years older, and their HIV prevalence was 61% (compared to 54% HIV+ in those with partners more similar in age, difference not significant $p=0.096$). (ALAFA, 2008:17). Definitions of "intergenerational sex" vary between studies.

Age disparate relationships have been cited in Southern Africa as a reason behind the higher prevalence of HIV among young women compared to young men. According to Leclerc-Madlala,⁵¹ studies in Southern Africa have consistently found that the larger the age disparity, the lower the probability of safe sex. She also argues that the stereotype of 'sugar daddies' is too limited for Southern Africa, and that 'sweet mammas' is a growing phenomenon. This is supported by RHS 2002 data, which showed that in 8% of sexual relationships, the female was at least 5 years older.

Mathematical modelling by Hallett *et al.* (2007) found that in generalised HIV epidemics, *reducing cross-generational sex* would have little impact on the risk of infection unless it is accompanied by a reduction in the number of risky sexual contacts, and that even peer-to-peer sexual mixing can support high endemic levels of HIV. The benefit of delaying sexual debut is reduced if males continue to prefer young partners or if young women spend more time unmarried. If older men were to use condoms as frequently as young men, the reduction in risk of infection could exceed that generated by a two-year delay in first sex. Therefore, at the individual-level, avoiding sex with older partners and delaying sexual debut can decrease the risk of

⁵⁰ As per the 2006 *Legal Capacity of Married Persons Act* this is no longer true in legal terms – see section 4.1.2

⁵¹ Leclerc-Madlala S (2008), "Refocusing HIV prevention to address real issues". Presentation at the Swaziland Partnership Forum, Ezulwini, 7th May 2008.

infection but at the population-level these interventions may do little to limit the spread of HIV without wider-ranging behavioural changes throughout the sexual network.

Transactional sex

In Lesotho, few respondents report sex with a commercial partner, but according to Leclerc-Madlala (2008), the transfer of money, gifts or services (transactional sex) has long been and remains an important and normative part of courtship and sexual relationships in Southern Africa.

- In 2002, 6% of females (12-49) and 5% of males (12-54) had ever exchanged sex for money, gifts or favours (RHS 2002)
- Sex in return for transport, money or gifts was reported by <10% of female respondents (violence survey 2005)
- A study on sexual risk-taking in contexts of food insufficiency in Botswana and Swaziland found that food insufficiency is associated with risky sexual practices for women: 80% increased odds of selling sex, 70% increased odds of having unprotected sex, and 50% increased odds of intergenerational sex (Weiser *et al.*, 2007)
- In the ALAFA survey, only 1.9% of apparel workers reported transactional sex in the past 6 months (ALAFA, 2008:17), but the report indicates that there may have been under-reporting, since the behaviour is generally not approved by society. HIV prevalence in the few who did report transactional sex was 61%, significantly higher than in those who did not report the behaviour (43%, $p=0.011$).

There is a continuum between commercial sex, transactional sex and other sex: Wojcicki & Malala (2001) write that the distinction between ‘*sex workers with a few steady clients*’ and ‘*women with several boyfriends who support them financially*’ is unclear. According to the 2008 sex work report, a woman involved in sex of a more transactional nature may not self-identify and is not necessarily identified as a SW by informants. For example, in one town a number of respondents indicated that there were 20 SWs, but that an estimated 80% of females drinking in bars and shebeens in the town (approx. 200 women) may be available for sex.

The vast majority of non-regular relationships are non-commercial: Male clients perceive only a few of their sexual contacts as ‘commercial’ and ‘paid sex’, most contacts are considered to be non-commercial as illustrated by data from the 2002 BSS and the 2004 DHS in table 1:

Table 1. Reported commercial and non-regular sex in the last 12 months in different populations

Population	% who had commercial sex	% who had sex with non-regular partner
BSS In-school male youth	0.7%	58% (46% protected)
BSS Out-of-school male youth	1.7%	70% (47% protected)
BSS Miners	3.1%	50% (50% protected)
BSS Military	1.0%	80% (74% protected)
BSS Taxi drivers and assistants	1.5%	78% (53% protected)
DHS Men 15-49	1.9% (‘paid for sex in last 12 months’)	63% (49% protected)

Source: BSS 2002, DHS 2004 (Table 11.8.2).

The low rate of reported visits to SWs may indeed mean that a large proportion of men in the general population in Lesotho do not engage in commercial sex, but it may also reflect a perception of what commercial sex is, relative to the apparent large amount of sex with non-regular partners that does occur, and the difficulties in defining sex work. Wilson (2001) reported from the cross-border risk assessment that low-income women share sexual networks with SWs, further widening the overall sexual network between SWs, mobile and local men.

Regarding values and norms associated with sexuality in South Africa, Leclerc-Madlala (2008) notes: “*Older accounts of courtship and marriage alert us to the idea that what we refer to today as age-disparate*

relationships as well as transactional sex and multiple concurrent partnerships, all have antecedents in older practices that have long played a part in defining the nature of social life and the particular values and norms associated with sexuality. Many culturally-inscribed assumptions and expectations that once legitimized these practices still prevail today and continue to influence the meanings that people attach to contemporary sexual relations and the expectations that people have in relationships”.

3.6.2.3. Alcohol consumption

A recent systematic review of alcohol use and sexual risks for HIV in SSA showed a consistent association between alcohol use and sexual risk taking (Kalichman *et al.*, 2007). Among people who drink, **greater quantities of alcohol consumption were associated with greater sexual risks, frequency of drinking less so.** The review also showed a clear gender difference in alcohol use and sexual risks; men were more likely to drink and engage in higher risk behaviour whereas women's risks were often associated with their male sex partners' drinking.

Alcohol use is more frequent among men, older people and urban residents. The 2004 LDHS found that 70% of female respondents had ever drunk alcohol, compared with 42% of men. However, in the three months preceding the survey, only 13% of women had drunk alcohol, compared with 38% of men. Older women and men were more likely to have drunk alcohol in the past few months than younger ones. The proportion of urban women and men who drank alcohol in the last three months was higher (16% and 41%, respectively) than among rural women and men (12% and 37%, respectively). Moeti (2001) reports widespread alcohol abuse and sexual encounters between individuals who were drunk.

Alcohol consumption and bar visits are correlates of HIV prevalence. The 2007 ALAFA survey found that workers who visited bars/shebeens over the last 6 months had significantly higher HIV prevalence (51%) compared to those who never visited bars/shebeens (42%, $p=0.001$). Workers who had been drunk/intoxicated over the last 6 months had significantly higher HIV prevalence (49%) than those who had never been drunk/intoxicated (42%, $p=0.03$). HIV prevalence was much higher for female workers who frequented bars/shebeens (57% HIV+) or had been drunk/intoxicated (54% HIV+).

Beer brewing is a large informal sector industry dominated by women. Mapetla & Machai (1998) report that beer brewing and selling is a significant informal income generating occupation accounting for about one third of small scale enterprises in Lesotho. Highest demand is observed in urban areas, in border towns (to serve the migrants and local labourers) and construction sites.

Although not supported directly by HIV data in heavy drinkers, it is likely that alcohol abuse – through its indirect effects of diminished rational capacity – is a more important factor in Lesotho's HIV epidemic than other mind-altering drugs. Anecdotal evidence on alcohol abuse and risk-taking among male and female students, alcohol-related accidents, etc. would support the notion of increased risk taking under the influence of alcohol. Any future study collecting data on alcohol consumption should use a scoring method to distinguish heavy drinking from other forms of alcohol use.

3.6.3 Factors at the structural level influencing risk of heterosexual HIV transmission

3.6.3.1. Labour and Migration

Lesotho has moved from being an agrarian to a capitalist migrant labour reservoir, and labour migration has had a far reaching impact on the structure of Basotho society. In 2004 (DHS), women headed 37% of households, an increase from 29% in 1996 (census). This may be somewhat attributed to migration to towns and industrial zones. Evidence from South Africa suggests that in migrating couples, both partners are at increased HIV risk – the one migrating and the one left behind (Lurie *et al.*, 2003). Migration is a risk factor not simply because men return home and infect their partners, but also because women become infected from outside their primary relationships.

There is a strong trend towards urbanization - the total population living in urban areas has steadily increased from 10.5% in 1976 to 23.8% in 2006 (BOS, 2007). In South Africa, informal urban areas were found to be the zones with the highest levels of new HIV infections (Shisana *et al.* 2005) due to an accumulation of risk behaviours. These milieus typically have a high level of newcomers who have left the controlling environment of the rural community. The move to urban centres has been described as liberating women from the “*oppressive social relations and deteriorating economic conditions of the rural areas*” (Mapetla & Machai, 1998).

Migration patterns have changed dramatically in recent years - both internal and external migration is a striking characteristic of the population of Lesotho (GOL, 2000). Lesotho’s economy has long been characterized by a high degree of labour migration to RSA. This trend gradually decreased from 40% in 1986, to 25% in 1996, and to an estimated 15% of the male labour force in 2001, due to retrenchment, internalization of labour and awarding citizenship to Basotho miners in the RSA. Labour migration to South Africa is predominantly by uneducated male workers, and retrenchment has left many men unemployed.

Internal migration is dominated by young females aged 15-29 years. Over the last decade, a new kind of migrancy has developed as some rural Basotho, particularly women, have found work in the textile factories established recently in Maseru, Maputsoe and Mafeteng. Being better educated than their male age mates, they are more readily absorbed in the local labour market. Today, the Lesotho apparel industry employs around 46,000 people, of which about 9 out of 10 are female (ALAFA, 2008:1).

Migration splits families and encourages multiple partnerships. The 2007 ALAFA survey found that only 37% of apparel workers lived at home with their family, and 64% lived away from their family in temporary accommodation near the factories. Of these migrant workers, 58% return home once a month to see their children and family, and about a third can only visit their family every second month or less often. Spouses and partners are often brought along to the temporary accommodation: 68% of apparel workers (and 75% of married workers) stayed with their spouse or partner, despite some of them having moved away from the family home. The survey demonstrated that migration has a significant effect on HIV prevalence: workers who were living away from home had a significantly higher HIV prevalence (43%) compared to those who are able to commute daily from home (36%, $p<0.01$). Workers living separately from their partner had significantly higher HIV prevalence (45%) than those living together with their partner (36%, $p=001$) (ALAFA, 2008:15).

Spiegel found widespread occurrence of marital infidelity while researching the effects of migrant work on the family structure in Lesotho.⁵² Reasons given by female respondents whose husbands were away working in the mines for taking on a *nyatsi* include the universal human need for emotional and sexual satisfaction, and beliefs about the harmful physiological and mental effects of celibacy.⁵³

Both kinds of migrancy (migration to South Africa dominated by men, and internal migration mainly practiced by women) have split families, and there is strong evidence that migration and living away from the family are risk factors for MCP, extra-marital affairs and sexual risk taking. These in turn lead to increased vulnerability to STIs, including HIV.

3.6.3.2. Sexual and physical violence

Sexual and physical violence is common in Lesotho – in the 2005 study on “*Sexual violence against women*” (Measure evaluation, 2005), 61% of female respondents reported having experienced sexual violence at some point in their lives. Forty percent reported experiencing some form of coerced sex and 50% experienced sexual assault. Twenty-two percent (22%) of the sample reported being physically forced to

⁵² Spiegel AD (1991:146)

⁵³ Coplan (1991:176)

have sexual intercourse at some point in their lives. A multi-country study on physical violence found that 60% of Basotho men and 62% of women considered violence against women a serious problem in the community (Andersson *et al.*, 2007). Regarding actual experiences, 12% of men and 16% of women had suffered physical violence in the last year. However, in the same study 64% of all respondents that said their community *could* do something about violence against women –among 8 countries in the sub-region Lesotho express the second highest collective efficacy. The CIET 2007 survey found that 19% of adults with a partner reported they had experienced physical violence in the last 12 months, an increase from 15% in 2002 (CIET, 2008).

Women are socialised to accept and tolerate violence – in Lesotho, 41% of men and 30% of women think that women sometimes deserve to be beaten, and most also believe that this is acceptable in Sesotho culture (Andersson *et al.*, 2007). The same study showed that people don't frequently talk about gender violence, and that 63% of men and 57% of women believe that violence between a man and a woman is a private matter in which others should not interfere. The 2005 violence study found that only 12% of forced first sexual intercourse was committed by strangers and the majority was perpetrated by boyfriends (66%) and husbands (7%). Community members typically are not supportive of women who report having been sexually assaulted and often blame the woman for causing the assault – this was a conclusion of the 2005 violence study and data from the multi-country study support this claim (31% of men and 24% of women said if a women gets raped it is her own fault (Andersson *et al.*, 2007). Based on South African data, Jewkes & Abrahams (2002) argue that the bulk of HIV risk stems from “normal sexual coercion”.

Local definitions of rape underestimate actual occurrence of sexual violence – customary law recognized the civil crimes of *seduction* and *abduction* (Poulter 1999). According to the 2003 Sexual Offences Act, which overrides customary law when there is conflict, a sexual act is *prima facie* unlawful if it takes place in any coercive circumstances (application of physical or psychological force; through threats; if person is affected by sleep, physical disability or intoxication; if a partner is under 12 years). However, Andersson *et al.* (2007) found that 36% of Basotho men and women believe that “forcing sex with someone you know is not rape”, and similar numbers said that forcing a partner to have sex is not rape. Few women who experienced sexual violence sought out existing services, and a woman's decision to disclose an assault is dependent on the type of perpetrator; disclosure is more common if the perpetrator is a stranger (Sechaba, 2005). Many women choose not to report sexual violence to the police because they face harsh and accusatory questioning from male police officers. Regarding a temporal trend, the CIET 2007 survey found that 70% of adults believed that “forcing your partner to have sex is rape”, which is an increase from 63% in 2002 (CIET, 2008).

Sexual violence is an independent risk factor for HIV transmission - only very few projects have made quantitative assessments of violence and women's HIV risk in Southern Africa. A study by Dunkle *et al.* (2004) on ANC clients in Soweto identified violence as an *independent risk factor for HIV infection*. Intimate partner violence (physical, sexual) was significantly associated with HIV sero-positivity (HIV prevalence 1.4 times elevated, from 28.6% to 40.2%). In that study, child sexual assault, forced first intercourse, and adult sexual assault by non-partners were not associated with HIV sero-status. This review did not identify any local data on the relationship between sexual violence and HIV status. Andersson *et al.* (2007) found that *having MCPs was the most consistent risk factor for domestic physical violence across the eight countries analysed*.

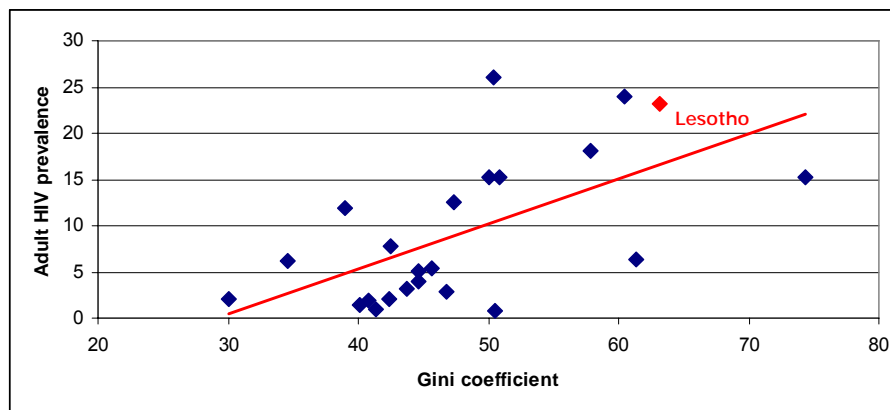
The power relations between men and women manifest in sexual violence. There is evidence that MCPs and physical violence are associated. Refusing sex, inquiring about other partners, or suggesting condom use have all been described as triggers for intimate partner violence; yet all are intimately connected to the behavioural cornerstones of HIV prevention.

3.6.3.3 Income inequality

Income inequality is very high in Lesotho – the measure for income inequality, the Gini coefficient,⁵⁴ is estimated at 0.63 for Lesotho - higher than Swaziland, South Africa and Botswana (HDR 2007/8). Income distribution is very skewed with the top 10% of households receiving 44% of the national income, whilst the poorest 40% receive only 8%. Most growth is concentrated in the capital city. About half of the population of Lesotho live below the poverty line, 54% of rural households are poor and 29% are ultra poor. The poorest families are in the highlands, but urban poverty is also increasing. Gross national per capita income is M3,133 or USD570. Retrenchment from RSA's mines has affected the GNP negatively.

Current evidence about poverty as a determinant of HIV infection is inconclusive; some recent analyses found no clear link between HIV and poverty (or wealth)⁵⁵ (e.g. Drain *et al.*, 2004; Fortson, 2008). However, Mishra *et al.* (2007) report a positive association between household economic status and HIV prevalence among adult men and women in SSA, and Bonnel (2007) argues that there may be an association between income inequality (Gini index) and national HIV prevalence in SSA (figure 27).

Figure 27. Association between income inequality and national HIV prevalence



Sources: GGI 2007: <http://www.weforum.org/pdf/gendergap/rankings2007.pdf>; Adult HIV prevalence, 2007 estimate: http://data.unaids.org/pub/GlobalReport/2008/jc1510_2008_global_report_pp211_234_en.pdf

According to Mishra *et al.* (2007), HIV prevalence does not follow the same pattern of association with poverty within countries in sub-Saharan Africa as most other diseases. They argue that although poverty reduction is an essential strategy to improve health and combat the HIV epidemic, the evidence suggests that HIV programmes should also be focused on the **better-off segments of the population**, and that focusing on the most important **modes of exposure** will probably be more effective than focusing broadly on poverty reduction. Furthermore, they stress that their findings do not imply that the poor are not disproportionately affected by HIV when they do get infected (poverty reduction is an extremely important goal in itself for many reasons, and for combating the HIV epidemic in the long run and dealing with its many adverse consequences). Bonnel (2007) suggests that income inequality affects the “market” for concurrent sexual partnerships: “*High income allows more partners while poverty increases the number of partners*”.

⁵⁴ The Gini coefficient is a measure of the income inequality in a society. It is a number between 0 and 1, where 0 would be perfect equality (everyone has the same income) and 1 would be perfect inequality (one person has all the income, everyone else has no income).

⁵⁵ Wealth in Lesotho has already been discussed in other sections of the report in relation to HIV prevalence (3.3.4), sexual inceptions (3.6.1.2) and male circumcision patterns (3.6.1.3).

3.7. Other sources of new infections (transmission other than heterosexual)

3.7.1 Transmission during sex between men

There is a lack of data on MSM. The literature review did not identify any recent HIV prevalence or sexual behaviour data on MSM in Lesotho. However, there is evidence that male-male sexual relationships exist,⁵⁶ particularly in gender exclusive settings like mines⁵⁷ and prisons,⁵⁸ and that it is very highly stigmatised and therefore hidden.⁵⁹ The international literature shows that:

- The majority of African MSM also have sex with women (e.g. Onyango-Ouma *et al.*, 2005).
- Once HIV is introduced into MSM networks, the men's female partners and offspring are at risk of HIV infection (van Griensven, 2007).
- Many MSM experience high levels of sexual violence (Auvert *et al.* 2005, Onyango-Ouma *et al.*, 2005)
- In rural Eastern Cape, 3.6% of men reported having ever had sex with a man (Jewkes *et al.*, 2006). Most sex acts were coerced or forced, and often single events. Having had sex with a man was a major risk factor for HIV infection (OR 3.6). Only one of the study participants identified himself as gay.

The importance of male-male transmission within Lesotho's epidemic has not been systematically researched, and incidence modelling results are based on assumptions and regional default values.⁶⁰

Incidence modelling results:

Transmission linked to MSM behaviours (MSM and female partners) ~3.5% of all new infections

- MSM ~3% of total annual incidence
- Female partners of MSM ~0.5% of total annual incidence

3.7.2 Transmission from mother-to-child

Incidence of infections in children is currently not included in the UNAIDS incidence model which focuses on individuals aged 15-49 years (Lesotho periodically runs Spectrum model estimates on PMTCT data).

A summary of the PMTCT intervention is available in the KYR chapter, showing that in 2007, 31% of pregnant women in need of ARV treatment received it (coverage=31%). To further reduce MTCT risks (and for many other health benefits to the infant), there should in general be exclusive breastfeeding for six

⁵⁶ Epprecht (2002): "Lesotho has an assertively heteronormative and 'macho' culture. Indeed, Basotho men have long possessed a reputation in southern Africa for being among the fiercest gangsters, toughest workers, and most incorrigible womanizers of all the African peoples of the region. In 1907 an official enquiry into 'unnatural vice' at the South African mines exonerated the Basotho of homosexual behavior. Yet by 1941 another report found that the Basotho were not only enthusiastically participating in inkotshane (male-male sexual relationships) but also public cross-dressing and same-sex marriage ceremonies".

⁵⁷ Oomen (2000): "In 'mine marriages' between men, many older migrant labourers kept a young novice as a 'mine wife', whose task it was to perform household chores and to be available for sex. The European supervisors in Zimbabwe, Zambia and South Africa looked the other way: the relationships promoted harmony and stability, and so contributed directly to productivity". She also writes that Lesotho has no regulations on lesbians and gays (laws in which homosexuality is mentioned explicitly), but that prosecution is still possible for instance by invoking "the contravention of public decency", and that Lesotho's constitution does not prohibit discrimination on grounds of sexual orientation.

⁵⁸ "Sodomy spreading Aids in prison: The Maseru divisional commander of correctional services disclosed that the main contributing factor to the deaths and the spread of HIV/Aids at the Maseru Central Prison was sodomy, which, he said, was not a new phenomenon in Lesotho's male prisons. The high incidence of sodomy in the jail has forced prison authorities to try to arrest the situation by taking cases of sodomy in the cells to the courts. Four sodomy cases were prosecuted in October 2004 (two culprits were sentenced to a further 10 years and the other two got nine years each). Sex in prison has different categories – consensual sex, 'marriage', and male rape. The prison's rehabilitation officer said there was no law in Lesotho that permitted homosexuality. Source: http://www.news24.com/News24/Africa/News/0,,2-11-1447_1685077,00.html

⁵⁹ Waterman (2008:17): "Although credible anecdotal accounts indicate that male sex work and MSM occurs, the nature and of extent of both is unclear, due to its extremely highly stigmatised nature"

⁶⁰ Assumption of MSM = 1% of male population, leading to a size estimate of 5,500 MSM and 4,100 female partners of MSM.

months.⁶¹ According to the 2004 DHS, the median duration of exclusive breastfeeding is estimated at less than one month (data not available by mother's HIV status). Only 15% of women exclusively breastfed up to age 6 months, and 2% of infants are not breastfed at all. There is need for a campaign warning of the danger of *mixed* feeding practices.

3.7.3 Transmission through needle-sharing during injecting drug use

The use of contaminated drug injecting equipment bears a high risk to transmit HIV. No data could be identified regarding IDU in Lesotho and therefore no incidence modelling was carried out for this population. A recent Government document states that: “*While drug use is observed, there are no known cases of IDU in the country*” (UNGASS Report 2007:16). The South African literature shows that:

- IDU is a growing phenomenon in South Africa (Plüddemann *et al.*, 2005), where injecting of heroin has increased in recent years in the Gauteng and Mpumalanga provinces.
- HIV prevalence in arrested IDUs in Durban, Pretoria and Cape Town was 20% (Parry & Pithey, 2006), similar to infection levels in the general population.
- In the 2005 South African BSS a total of 4.7% adults reported ever having tried IDU (Shisana *et al.* 2005:74). Only 0.1% of respondents indicated that they had shared injecting needles.

3.7.4 Transmission through the use of unsafe (unclean) medical injections and lack of universal precautions

Unsafe medical injections can lead to infection with HIV, HBC, HCV and other blood-borne pathogens. The large uncertainty in the risk of HIV transmission from HIV-contaminated injections makes it difficult to quantify their transmission contribution (White *et al.*, 2007). The only local evidence on the safety of medical injection practices is De Walque (2008), who assessed the HIV risk of prophylactic tetanus toxoid injections during pregnancy, and found that HIV prevalence among women who had had no TT injection was slightly higher (29.7%) than among those with at least one TT injection (28.1%). Incidence modelling used DHS data on injection frequency and default data.⁶²

Incidence modelling results:

Transmission linked to unsafe medical injections: <0.1% of total annual incidence

Other potential transmission pathways are from blades, needles and knives which are immediately re-used on another person without being sterilized. This may apply to tattooing (e.g. in prisons), scarification practices (e.g. in traditional medicine), traditional circumcision (in initiation schools), shaving (e.g. barbers) and cuts (e.g. gang style initiations). The review found evidence of sharing of tattooing equipment and blades in Lesotho prisons,⁶³ and of the use of shared, contaminated cutting instruments in circumcision.⁶⁴ In the 2007 ALAFA study, 9.6% of workers reported having shared needles or blades in the last 6 months, but HIV prevalence was not affected by this risk behaviour (p=0.7) (ALAFA, 2008:13).

Evidence from the South African exposure study cited a traditional healer who used porcupine quills in scarification and said he did not sterilise his quills, because they were medicine and had supernatural powers to cleanse themselves of any diseases. In Lesotho, one traditional health practice is *ho Phatša*, during which

⁶¹ Exclusive breastfeeding up to six months is recommended by WHO for HIV positive mothers.

⁶² 10% of male and 15% of female adults reported having had at least one medical injection in the past 12 months (DHS 2004), leading to an ‘at risk population’ of 141,000; assumption of use of safe injection equipment in 95% of injections.

⁶³ Akeke *et al.* (2007) found in Lesotho that 42% of inmates had tattoo marks, of which two-thirds were done in the prison. The instruments used for their tattoo marks usually were not sterilized, and the same instruments were used for more than one person in about half of the cases. Furthermore, 65% of the respondents agreed that they shared the use of the same sharp instruments like shaving blades in the prison.

⁶⁴ Brewer *et al.* (2007) found that circumcised male virgins were substantially more likely to be HIV infected than uncircumcised virgins. HIV prevalence was 1.9% in uncircumcised male virgins, and 6.1% in circumcised male virgins (OR=3.4). He concluded that HIV transmission may occur through circumcision-related blood exposures.

incisions are made in the skin with a razor blade to administer traditional medicines, potentially dangerous if razorblades are not sterilized between uses.

Sharing of sharp instruments is a potential source of new infections in Lesotho. The main sources identified were tattooing, sharing of blades for scarification and incisions, and traditional male circumcision. No evidence was found regarding re-use of unsterilized blades by barbers and gang-style initiations.

3.7.5 Transmission through transfusion of unscreened blood and blood products or through organ transplants

The potential transmission of HIV through blood, blood products and donated organs is important to appraise, because the efficiency of HIV transmission through this pathway is high. Lesotho has only one central laboratory to which all the blood units collected from donors are sent. From December 2006 to November 2007, 3,026 blood units were donated and screened. In Lesotho, the official government figure for 2006 and 2007 for blood screening is 100% i.e. all donated blood units were screened for HIV in a quality assured manner (UNGASS 2007 report, 2008:9).⁶⁵ PCT screening is not done currently, there may be therefore false negative blood units transfused of donors who are in the window period. This risk is minimized at the level of blood collection, where a history on recent and past health status is taken from every blood donor.

Incidence modelling results:

Transmission through blood transfusion – 0% of total annual incidence

3.8. KYE Synthesis: A Summary

HIV prevalence levels and trends

At 23.2%, in 2008 Lesotho has the third highest adult HIV prevalence in the world. The epidemic appears to have stabilised from about year 2000 onwards (Spectrum projections). HIV prevalence in children below 15 can only be estimated but probably reached its peak level in 2007 (about 12,000 HIV positive children). Some infections in children arise from early sexual debut (15% of girls and 27% of boys reported sexual intercourse before age 15 in the 2004 LDHS), and there is evidence from several sources that some of these acts are forced and that the majority are not protected by a condom.

The addition of ANC sentinel sites and 2-yearly implementation of surveillance provide better data to track national prevalence trends. In 2007, seven of ten ANC sentinel sites showed decreased HIV prevalence compared to 2005. ANC data suggest that HIV prevalence in women aged 15-24 is falling, but was still increasing between 2005 and 2007 in ANC clients aged 30-40 years.

Years of high HIV prevalence (adult prevalence above 15% since 1995) have changed mortality patterns and increased infant, under-5 and adult mortality. The population growth rate has slowed drastically to about 0.1% due to declining fertility, increased contraceptive use and high mortality.

In September 2008, coverage of ART among those in need had climbed to 45% (approximately 38,500 individuals on ART). The estimated number of AIDS-related deaths has dropped sharply since its peak level in 2005 of about 20,000. With ART prolonging lives of people living with advanced HIV infection, HIV prevalence data become increasingly difficult to interpret and data on new (incident) infections become very desirable.

⁶⁵ It was assumed that about 0.5% of adults had a blood transfusion in the current year, leading to 5,500 persons at risk. Since blood screening is reported to be at 100%, the incidence model predicted zero new infections attributable to blood transfusion.

Heterogeneity of the HIV epidemic in Lesotho

Table 2. Heterogeneity of HIV in specific sub-populations in Lesotho

Lower HIV prevalence	Higher HIV prevalence	Text reference
Males aged 15-30 years (10.1%)	Females aged 15-30 years (21.4%)	Sections 3.3.1/2, figures 9&11
Females aged 40-50 years (23.3%)	Males aged 40-50 years (30.9%)	Sections 3.3.1/2, figures 9&11
Men and women living in rural areas (21.9%)	Men and women living in urban areas (29.1%)	Section 3.3.3, figure 13
Poorer women (19.6% in lowest quintile)	Wealthier women (28.9% in highest quintile)	Section 3.3.4, figure 16
Men and women who are not working (19.9%)*	Working men and women (30.3%)*	Section 3.3.4, figure 16
Men and women with education (23.2%)	Men and women without education (27.4%)	Section 3.3.6
Never-married men who had sex (11.4%)	Never-married women who had sex (24.2%)	Section 3.3.7, figure 19
Married women (26.9%)	Married men (32.9%)	Section 3.3.7, figure 19
Men and women without sex partner in last 12 months (23.1%)	Men and women with 1 or more sex partners in last 12 months (28.3%)	Section 3.6.1.4
Women reporting sex only with spouse or cohabiting partner in last 12 months (27.4%)	Women who had higher-risk sex in last 12 months (37.2%)	Section 3.6.1.4

* likely to be confounded by age

Although some important heterogeneity can be detected, the epidemic involves all socio-demographic sub-populations and that there is a high degree of *homogeneity*, e.g.:

- All districts, both sexes and most age groups had HIV prevalence above 15% (except females 15-19 and males 15-24)
- Women and men in all wealth, education and migration strata have HIV prevalence of at least 15%
- All but one ANC sentinel site reported HIV prevalence above 15% in 2007.

HIV incidence levels

Annual HIV incidence in adults has stabilised at approximately 1.7% (approximately 21,000 new infections in adults in 2007), and peak incidence was at approximately 3.6%, in 1995. Annual HIV incidence in children has halved in the last 8 years to 0.17%. There are several reasons for this drop, including rapidly increased PMTCT uptake to 31% in 2007, and decreased incidence in adults which in turn reduces the risk of MTCT and infection via other transmission pathways..

Sources of new infections in adults

Heterosexual sex is the predominant HIV transmission pathway in Lesotho, confirmed by the very high estimates of HIV population prevalence, the significantly higher prevalence in women (26%) than in men (19%), and the mostly heterosexual nature of reported sexual relationships. In the case of Lesotho, the application of the incidence model lead to uncertain estimates with wide uncertainty bounds due to data gaps. It can however be concluded that both single-partner (in discordant relationships) and multiple partner behaviours contribute substantially to annual incidence, and that commercial sex may be comparatively less important in causing new infections (~3%). About 3-4% of all new infections might arise from MSM activity (MSM and female partners), and a very small number of new infections annually may be attributable to unsafe medical injections. It was estimated that blood transfusion does not contribute to incidence due to consistent routine antibody screening, however, there is a possibility that HIV-infected blood is transfused if a donor is in the window period. There was a lack of data regarding IDU activity, but circumstantial evidence suggests that IDU is hardly taking place in Lesotho.

Factors affecting the rate of sexual transmission of HIV

Marriage trends are changing towards older age of first marriage for men and women. This, combined with earlier sexual debut of men, leads to **increased years of pre-marital sex**. Among never-married young women and men (15-24), a significant proportion reported having had sex in the past 12 months (28% of women and 48% of men), and about half of these acts were protected (56% for women and 50% for men).

Long term trends in median age at first sex suggest a decrease for men and a stable level for women. In youth, the level of education, wealth quintile, and residence are strongly related to age at first sex, especially for young women. Only a fourth of young women and men used a condom during their first sexual encounter.

“Male circumcision” as practiced in Lesotho is part of the male initiation process and does not seem to confer the level of protection against HIV expected from MC. Anecdotal evidence suggests that it may be incomplete by bio-medical standards, with perhaps only a small incision cut into the foreskin. It is estimated that about 10,000 initiates are circumcised each year by traditional “surgeons”, and about 4,000-5,000 men are circumcised in the formal health sector. There is evidence of unhygienic conditions during the MC procedure, as well as riskier behaviour upon MC.

In Lesotho, sexual concurrency is exceptionally high with an overall MCP prevalence of 24% in 2007, compared to 10% in the region. One-time encounters (‘one-night stands’) appear to be less frequent than longer-term secondary relationships. The number of sexual partners is a strong predictor of HIV sero-status. Different survey results over the last 15 years suggest that MCP frequency may be declining but remains at a high level: In 2007, among adults with at least one sexual partner, 16% of women and 36% of men had more than one current sexual partner. In the 2007 ALAFA survey, 17% of female workers and 38% of male workers currently had MCPs. **Extramarital relationships are frequent and sex acts are often not protected by condoms.** DHS, ALAFA and BSS data all provide strong evidence that married people maintain high-risk sexual practices with other partners.

Throughout Southern Africa, multiple concurrent partnerships are common and viewed as normal. *In Lesotho, there is clear evidence from qualitative and quantitative studies that having a secret partner is common and that multiple partners are part of the way of life of many Basotho men and women.* MCPs are legitimised through the deep-rooted traditions of a polygamous society and enculturation of boys and girls resulting in sexual entitlements of men. They are facilitated by labour migration which separates couples and steady partners, by multiple needs and wants of women (financial, emotional, sexual, revenge, networking for social mobility, peer pressure, etc) and perceptions that they verify a man’s wealth, standing and manhood. There is evidence that the food crisis and basic needs as well as the availability of modern consumer goods affect risk taking by women (survival sex and consumption sex). When asked, people disapprove of the custom of having secret partners, but recognise that it is common. Regional research also shows that mistrusting a main partner’s faithfulness can motivate acquisition of other partners, who then act as an insurance against being left without a partner, as an emotional backup and as a means of retribution for being made to feel insecure in the main relationship.

Key sub-populations at risk of HIV are mobile populations such as apparel workers and their migrating partners, miners, transport workers and plantation workers. The sexual networks among mobile sub-populations involve both transactional and commercial sexual relationships. The dynamics of labour migration have changed dramatically from supplying male workers to the mines in South Africa to providing female apparel workers to factories in Maseru, Maputsoe and Mafeteng. International and internal migration splits families and contributes to an environment conducive to extramarital affairs, MCP and sexual risk-taking.

Community level analysis of the epidemiology of HIV found that gender roles and discrimination, social norms around age-disparate relationships and transactional sex, and alcohol use are important co-factors. At the structural level, labour and migration, sexual and physical violence and income inequality are key determinants of the epidemic but largely outside individuals' control.

Multiple sexual relationships before and during marriage, in combination with low levels of full male circumcision, and low and inconsistent condom use, continue to be major factors in Lesotho's hyperendemic HIV situation. Although incidence has halved since its peak level in 1995, a high number of preventable infections occur each year in adults and children. More educated and younger persons show positive behaviour change, but this is not sufficient to significantly reduce the scale of the HIV epidemic in Lesotho.

CHAPTER 4. KYR SYNTHESIS

This chapter presents the findings from the “Know your response” synthesis which includes a review of the policy environment for prevention; strategic information on prevention; prevention programmes and activities; and resources spent on prevention.

4.1. Review of the policy environment for prevention

This section provides a brief overview of the environment in which HIV prevention programmes are implemented, divided into four sections:⁶⁶ policy context, legal environment, protocols & guidelines, and finally a summary of the findings from the focus group discussion held with the Prevention Thematic Team based on the HIV prevention policy check list. More detail on the policy context is provided in **annex 4**.

4.1.1 Policy context

Table 3. Policy framework for HIV prevention in Lesotho (August 2008)

Policies relating to HIV prevention	Year
Education Sector HIV & AIDS Policy	2007
National HIV and AIDS Policy	2006
HIV Testing and Counselling Policy	2006
National Adolescent Health Policy	2006
National Blood Transfusion Policy	2006
National OVC Policy	2006
National Youth Policy	2006
Gender & Development Policy	2003

The **National HIV and AIDS Policy (2006)** reflects wide stakeholder buy-in from all sectors. With regards to prevention, the policy states that the main objective is to facilitate reduced HIV transmission among all populations and in particular in the more vulnerable populations. Vulnerable populations are not specifically defined in the prevention section of the policy, however, under “impact mitigation”, vulnerable groups are listed as women and girls, OVCs, children and young people, Commercial sex workers, prisoners, people in homosexual relationships, people with disabilities, people who abuse alcohol and drugs, and

finally couples about to get married. The key HIV prevention intervention activities covered in the policy include BCC, HTC, diagnostic counselling and routine testing, provider initiated HTC, beneficial disclosure of HIV status to sexual partner/s, condom use, PMTCT, management of STIs and PEP. The policy also covers blood and blood products safety, universal precautions, and injecting tools and skin-piercing instruments.

The **National HIV Testing and Counselling Policy (2006)** was developed after a consultative process with various stakeholders in the country. The policy covers HIV testing; barriers to HIV testing; compulsory testing; HIV testing for PMTCT; HIV and AIDS counselling; issues on disclosure and protection of confidentiality; vulnerable groups; ensuring high quality of services; community based HTC services, and stigma. The policy states that HIV testing shall be routine for pregnant mothers attending antenatal clinics. As per the policy, HIV testing shall be done with informed consent and the minimum age of consent for HIV testing shall be 12 years, with an exception where written consent for a person donating blood, organ or tissue for transfusion, transplantation or research shall be deemed consent for HIV testing. The HTC policy indicates that vulnerable and special groups shall be supported to access HTC services without any form of discrimination, listing women, children and young people. With regards to mandatory testing, the policy stipulates that HIV testing should not be made compulsory except “*upon a court order when a person is charged with a crime such as rape or when the offender knows he is afflicted with HIV or other [STIs]*”.

The **Education Sector Policy on HIV and AIDS (2007)** states that every person in the education sector has the right to the knowledge, information and services required to ensure a safe environment and prevent HIV

⁶⁶ The tables in this section lists all policies, laws, protocols, guidelines and strategic plans identified in the policy review, but only the most relevant are summarised in the narrative. Annex 4 has a more detailed review of the policy and legal environment .

infection. The section on HIV prevention covers information and awareness, the curriculum, HTC, access to SRH services, safe education environment and partnerships to be established between schools and the wider community. With regards to messages for HIV prevention in the life skills curriculum, the policy states that even though the Ministry's [MOET] first choice is abstinence, learners will be given proper information about sex, the risks associated with sexual activity and how they can protect themselves.

As per the policy, learners and personnel should, where developmentally appropriate, have access to reproductive health devices and services; condom dispensing and distribution will be the responsibility of health centres; lastly, Youth Friendly Services (YFS) including health corners, peer counselling clubs and recreation facilities will be established to cater for all including learners with special needs. HIV and AIDS safe workplaces will be established at all levels of the education system, since all need to protect one another particularly children, including those with special educational needs and the challenged, from all forms of sexual abuse, including harassment, sexual molestation, sexual exploitation and rape.

The objective of the **National Adolescent Health Policy (2006)** is to promote responsible behaviour among adolescents (10-19 year olds) regarding contraception, safe sex and prevention of STIs and HIV. Adolescents are (per the policy) entitled to access YFS, in privacy with respect for confidentiality. The policy also holds that legislation to ensure this will be enacted. The background section to the policy indicates that girls who become pregnant are expelled from schools. *The MOHSW (1997) found that 17% of all deaths of females of child bearing age were due to abortion. However, abortion is illegal in Lesotho under common law.*

The aim of the **Gender and Development Policy (2003)** is to facilitate proper integration of gender issues in development to ensure full involvement, participation and partnership of women and men, girls and boys in their productive and reproductive lives. Relating to HIV prevention, the policy proposes that the Government shall provide accessible, available and affordable SRH care, including family planning information and services, with particular attention to maternal and obstetric care and prevention of STIs and HIV in all health service areas. To achieve this, the GOL shall increase and strengthen gender-sensitive campaigns on health behaviour change, and IEC for the prevention and control of HIV/AIDS and will also advocate for laws and policies that are against all forms of sexual abuse and exploitation.

4.1.2 Legislative environment

Table 4. Policy framework for HIV prevention in Lesotho (2008)

Laws relating to HIV prevention	Year
<i>National HIV AIDS Bill (draft)</i>	2007
Legal Capacity of Married Persons Act	2006
The Children's Protection and Welfare Bill	2004
Labour code amendment (codes of good practice)	2003
Sexual Offences Act	2003
Marriage Act	1974

The **Legal Capacity of Married Persons Act (2006)** was developed "to provide for the removal of minority status of married women and to provide for incidental matters" (p462). Prior to its enactment, a married woman did not have legal capacity over herself and her body: among other things, a married woman could not open a bank account, enter into a contract, or undergo medical surgery without

her husband's consent (Pholo & Zuberi 2007:14). The Act overrides common law, and consequently a married woman in Lesotho is no longer considered a legal minor, but has control over major decisions including allocating property by will (Ibid.).

The legal age for marriage in Lesotho is 21, and written consent of the legal guardians is required for boys over 18 and girls over 16 wishing to marry. Boys under the age of 18 and girls under the age of 16 can marry if they have "written permission of the Minister" (section 27), as per the **Marriage Act (1974)**.

The **Sexual Offences Act (2003)** introduced a series of sexual offences. Both women and men can be convicted of sexual offences. For the first time ever in Lesotho, the sexual offences Act recognised marital rape as a criminal offence given certain conditions: (section 3) b: the accused spouse or partner had or was

reasonably suspected to have a sexually transmissible disease or other life treating disease; c: violence or threats were used to engage in a sexual act. It has been noted that this provides for dealing with sexual and gender based violence (Pholo and Zuberi 2007:14). The Act also prohibits sexual abuse of children, molestation, and persistent child abuse. In the Act, “sexual act” includes anal sex, and thus non-consensual anal sex is considered a sexual offence. The Act also stipulates mandatory HIV testing for any person charged with rape within a week of the preferment of the charge. In addition, under Lesotho’s common law, abortion is an offence punishable by imprisonment.

The **Lesotho HIV and AIDS Bill, (2008)** creates a legislative framework for Lesotho’s national response to HIV and AIDS within the context of the national constitution. The Bill describes the obligation of the national, district and local governments to prevent and mitigate the impact of HIV/AIDS; and, finally it will enable Lesotho to comply with its international obligations. The Bill states that the MOHSW shall make available and accessible to all, and in all centres accredited under section 10 of the same Bill, the following prevention services: HCT, SRH, and materials, goods, products and other services for prevention of HIV infection. It further states that testing for HIV should not be used to discriminate against an individual and that authorities are not to require testing for the purposes of discrimination. Regarding education and information on HIV/AIDS, the Bill states that MOHSW and MOET shall ensure that every person has access to education and information on the prevention and treatment of HIV and AIDS. The NAC will, in collaboration with the responsible public bodies at the border posts, ensure that HIV and AIDS information, modes of transmission and consequences of HIV infection, as well as information on HIV related prevention, treatment, care and support services are adequately provided.

It is also important to raise two additional issues, namely the legality of **sex work** and of **consensual anal sex between men**. No law regulates sex work in Lesotho, and a recent review found that “*even though frowned upon, there are no statues in Lesotho prohibiting soliciting, or the procurement and payment of sexual services among adults*” (Waterman 2008:16). However, the Sexual Offences Act, 2003 prohibits child prostitution and commercial sexual exploitation of children, making it an offence to purchases sex from a child under the age of 18. On the issue of consensual anal sex, it is widely held as immoral and was previously illegal under common law in Lesotho. However, the common law of Lesotho relies heavily on South African cases for precedent, and the case *National Coalition for Gay and Lesbian Equality v Minister of Justice (1998 (2) SAC 577 (SCA))* ruled by the constitutional court of South Africa that:

“the former crime of sodomy is unconstitutional, since its existence is incompatible with the right to equality (which includes the right not to be discriminated against on the grounds of sexual orientation), the right to dignity and the right to privacy ... not even non-consensual sexual intercourse between males per anum (that is so-called “male rape”) may be punished as sodomy, because the whole core of the crime is unconstitutional, the reason for the crime’s existence being the perceived necessity of punishing a certain form of sexual expression amongst homosexuals, namely sexual intercourse.” (Snyman 2002:438)

Therefore, consensual anal sex between men could potentially no longer be considered illegal in Lesotho; however, forced anal sex is punishable under the sexual offences Act cited above.

4.1.3 Guidelines and protocols

Table 5. Guidelines for HIV prevention interventions in Lesotho (2008)

HIV prevention guidelines and protocols	Year
PMTCT guidelines	2007
HIV and AIDS guide for small businesses in Lesotho	2007
HIV testing and counselling guidelines	2004
ART guidelines	2004
Post-exposure prophylaxis (PEP) guidelines	2002
STI treatment guidelines	2005/2006

The MOHSW Family Health Division developed the **PMTCT Guidelines (2007)**. They stress PMTCT services as an entry point for prevention of HIV infection and continuous follow-up and care of exposed infants, HIV-positive women and children and their families. The PMTCT policy is in line with the recommended four prongs in

preventing MTCT namely, 1) Primary prevention of HIV infections among women of child-bearing age; 2) Prevention of unintended pregnancies among HIV infected women; 3) Prevention of HIV transmission from infected mothers to their children; and 4) Provision of continuous care, treatment and support for infected mothers, their partners and children. As per the protocol, *“HIV infected women with CD4 cell count below 350 or in clinical stage 3 or 4 should be initiated on HAART promptly and managed at MCH. The length of time that a woman receives HAART before delivery is directly related to the risk of HIV transmission to the infant; therefore HAART should be initiated as soon as possible in eligible women to minimize the risk of transmission to the infant”* (p36).

The **National Antiretroviral Treatment Guidelines (2004)** were developed with particular focus on PMTCT. ART is the most important strategy to prevent MTCT and HIV positive mothers should be given ART during pregnancy and childbirth, and newborns should be given 6 weeks of ART as prophylaxis (prevention). The guidelines recommend that ART should also be considered for HIV-positive mothers who are breast-feeding. In addition to the use of antiretroviral drugs, the following obstetric practices that reduce the risk of mother to child transmission of HIV should be adopted: avoidance of early rupture of membranes; avoidance of routine episiotomies; avoid foetal scalp puncture and using non-traumatizing suction cups on vacuum extractors where possible. The guidelines require that all HIV positive pregnant women be counselled on the risk and benefit of both breastfeeding and the use of breast milk substitutes, and supported in their choice. The guidelines discourage mixed feeding, and encourage exclusive breast feeding in all women whether positive or negative.

Additionally, the ART guidelines also stipulate that PEP should be made available for men and women who have been raped/sexually assaulted, and for health care workers who have a low but measurable risk of HIV infection after accidental exposure to infected blood or body fluid.

4.1.4 Policy checklist

As shown above, the policy environment for HIV prevention in Lesotho is comprehensive. The UNGASS 2006-2007 report noted that *“between 2005 and 2007 there have been major advances in the field of policy development”* (2008:18). However the same report also states that *“there is a strong need to operationalise these policy commitments into action”*. To identify key challenges to the implementation of the various policies in Lesotho, a focus group discussion was organised for members of the Prevention Thematic Team (PTT)⁶⁷ based on the HIV prevention policy checklist, summarized in table 6 (and see **annex 2a**).

⁶⁷ The PTT is mandated to advice on issues relating to policies, strategies and activities of HIV prevention. The members include: MOHSW, NAC, line ministries, development partners and CSOs.

Table 6. Summary of focus group discussion on policy context for prevention in Lesotho (2008)

<p>1. Has a costed plan for effective HIV prevention, which provides a clear mandate for leadership, resource mobilization, coordination and reporting to the NAC.</p>	<p><u>Observation:</u> Lesotho has a costed NSP plan which incorporates HIV Prevention <u>Key challenge:</u> No clear guidelines on the roles of the various prevention stakeholders particularly within the reporting system.</p>
<p>2. Mobilizes and commits resources to HIV prevention sufficient to meet the needs of the essential HIV prevention plan; tracks and analyses expenditures to improve future planning cycles.</p>	<p><u>Observation:</u> Country mobilizes and commits resources to HIV prevention <u>Key challenge:</u> Sufficient resources not available to meet the needs of the essential HIV prevention plan. <u>Recommendations:</u> Put a tracking system in place for prevention expenditures Develop clear costed Accelerated HIV Prevention Strategy</p>
<p>3. Conducts a regular national review of every sector to evaluate whether current practices promote risk behaviour or hamper access to HIV prevention services.</p>	<p><u>Observation:</u> Regular national review of every sector to evaluates whether current practices promote risk behaviour not done <u>Key challenge:</u> There is a need for the PTT to undertake regular reviews of all sectors relevant to HIV prevention response to ensure that practices that promote risk and/or practices that hamper access to HIV prevention services are highlighted.</p>
<p>4. Builds public awareness and demand to amend legislation and policies that create barriers to HIV prevention, such as laws that discriminate against women and girls.</p>	<p><u>Observation:</u> The perception is that the country is doing fairly well in building public awareness and demand and amending policies and laws <u>Key challenge:</u> Poor commitment to enforcing laws and implementing policies by government, despite high demand</p>
<p>5. Reviews, amends and enacts appropriate laws and policies and enforce anti-discrimination legislation.</p>	<p><u>Observation:</u> The country reviews, amends and enacts laws and policies to address issues of discrimination. <u>Key challenge:</u> Inadequate resources to fully enforce laws in the country</p>
<p>6. Promotes full enforcement of laws against child marriage, sexual abuse and gender-based violence.</p>	<p><u>Observation:</u> Laws are in place, but enforcement is weak <u>Key challenge:</u> Inadequate resources to fully enforce laws in the country</p>
<p>7. Advocates and promotes removal of user fees or taxes that reduce access and use of key commodities, such as HIV test kits, male and female condoms, treatments for STIs and ARVs.</p>	<p><u>Observation:</u> There is no full advocacy and promotion of the removal of user fees or taxes on commodities such as HIV test kits or condoms that are key to combating the epidemic. Branded condoms are taxed but donated condoms (male and female) are not taxed. ARVs are not taxed</p>
<p>8. Trains and supports leaders (e.g. political leaders and leaders from within PLHIV networks, vulnerable communities, the private sector, faith-based organizations, traditional healers) to speak out against HIV-related stigma and practices that promote HIV transmission</p>	<p><u>Observation:</u> Lesotho is very enthusiastic in training and supporting its political leaders and leaders from non-governmental organisations, civil society organisations, the private sector, faith based organisations and traditional healers on speaking out against stigmatization issues and practices that promote transmission of the virus.</p>
<p>9. Promotes and energizes multisectoral linkages with ministries that are or should be involved in the HIV response (e.g. local development; social welfare; health; education; agriculture; youth and sports; women; human resources; uniformed services) and establish clear sectoral responsibilities for risk reduction, vulnerability reduction and impact reduction for each.</p>	<p><u>Observation:</u> Lesotho does promote multi-sectoral linkages with other government line ministries that play a vital role in the AIDS response. Additionally, there are clearly established sectoral guidelines and responsibilities for risk, vulnerability and impact reduction.</p>
<p>10. Promotes MC as an additional, important strategy for the prevention of heterosexually acquired HIV infection in men as part of a comprehensive HIV prevention package which includes: promoting delay in the onset of sexual relations, abstinence from penetrative sex, and reduction in the number of sexual partners; providing and promoting correct and consistent use of male and female condoms; providing HTC services; and treating STIs.</p>	<p><u>Observation:</u> MC is a sensitive issue in Lesotho as it is practiced as part of the initiation process <i>Lebollo</i>. An MC situational analysis was conducted with the objective of scaling up MC in Lesotho The consultation process of the situation analysis created a dialogue between traditional circumcisers and medical practitioners in Lesotho and scale up of MC in selected health and health related institutions country wide is now underway. <u>Key challenge:</u> Some resistance to scaling up MC among traditional healers, but dialogue is ongoing</p>
<p>11. Promote mainstreaming of HIV/AIDS in education and programmes</p>	<p><u>Observation:</u> Mainstreaming of HIV and AIDS activities or programmes into education policies, strategies and programmes is practiced fully by every sector.</p>
<p>12. Makes Policy provision on sexuality and health to facilitate systematic preventive education</p>	<p><u>Observation:</u> All sectors of the economy have policies on sexual health and sexuality that facilitate systematic education on prevention.</p>

4.2. Strategic information on prevention

Lesotho is working to establish a functional M&E system and is committed to the Three Ones Principles regarding coordination, planning and M&E. The country has a National HIV and AIDS policy, a National Strategic Plan (2006-2011) which includes universal access targets for HIV prevention, and a costed Monitoring and Evaluation Framework (2006-2011). The M&E plan includes indicators at the impact, outcome and output levels to track the epidemic and response regarding prevention, care, support and mitigation. During the recent M&E Assessment (NAC, 2008b), several weaknesses were identified in the national M&E system. The general impression was that while the system is functional at the national level to a high degree, it is weak at the district level, and information does not easily flow between the central and decentralised levels. The 2008 UNGASS report also noted poor stakeholder collaboration and coordination of M&E activities at district and community level, and lack of alignment of some key partners' M&E plans with the National M&E Plan.

M&E framework

The M&E framework was adopted in December 2006 and endorsed by all key stakeholders, in order to gather, analyse and disseminate data to inform future strategy and intervention. The framework includes a five year plan, which is implemented under the coordination of the NAC. Fourteen key data sources are identified,⁶⁸ and the data flow is defined both for health sector implementers and non-health implementers. The M&E assessment found that specific weaknesses in organisational structures (like the lack of M&E units in some public sector organisations) impair the functionality of the M&E system. This is compounded by insufficient technical skills in M&E, poor harmonisation of M&E activities, and use of indicators which are not standardised between the national and the decentralised levels.

Sentinel surveillance and population based surveys

These data answer questions on prevention activities' impact (e.g. HIV prevalence) and outcomes (e.g. number of partners). The MOHSW has been conducting **ANC sentinel surveillance** since 1991, recently at 2-year intervals (see section 3.2 for further information). The sites now represent the three geographical zones, but there is still an urban bias -- more urban ANC clients are included since all sentinel sites are located in the main hospital in the districts. The 2004 **DHS+** provided essential strategic information about SRH behaviours and HIV prevalence in males and females aged 15-49 years. The next DHS+ is scheduled for 2009 and specific additional data will be collected to assess the effect of preventive interventions (such as HTC) and to better populate the *HIV incidence model*. The more recent ANC data increasingly have been used for **projections and estimations** with EPP and Spectrum software, in order to project HIV prevalence, *HIV incidence in adults and children*, and estimate PLHIV numbers, AIDS deaths, orphan numbers and treatment needs. The seroprevalence data from the LDHS 2004 are being used to create a more accurate set of assumptions to use in estimating prevalence rates from sentinel surveillance data. The M&E assessment found that important surveys are not conducted at the required time intervals and that there is a lack of feedback on findings to the community level. Another shortfall is the lack of any paediatric surveys and surveillance data, and the non-existence of an inventory of all HIV-related surveys conducted in Lesotho. Concerning HIV prevalence surveys in most-at-risk populations (MARPs), in the past, the sentinel surveillance tested STI patients, TB cases and blood donors, and the 2007 ALAFA study tested apparel workers (see sections 3.3.3, 3.6.1.1 and 3.6.1.4).

Programme activity monitoring

Data from routine programme monitoring provide information about outputs of prevention activities such as number of people counselled and tested. They are collected in the health sector and non-health sectors

⁶⁸ Modelling and projection of the epidemic, DHS, Quarterly Service Coverage Reports, Work place survey, national TB programme annual report, NASA, NCPI, District Health Management Team assessment, Ministry of Education survey, the MOHSW –STI/HIV and AIDS Directorate annual report, HIV/TB/STI drug stock survey, National HIV and Syphilis Sentinel Surveillance survey, Health facility accreditation survey, and District STD Quality of care assessment

(NGOs, private sector, other government ministries, etc). The MOHSW collects routine data on a number of key prevention indicators including: the number of people receiving HTC; the number of health facilities providing HTC; the number of pregnant women provided with a complete course of ARV prophylaxis; the number of ANC facilities offering PMTCT services; the number of people provided with PEP; the number of health facilities offering PEP; and the number of blood units screened for HIV. The NAC is responsible for analysing data and producing the national-level **Quarterly Service Coverage Report (QSCR)** based on standard monthly monitoring forms for service providers in health and non-health sectors. However, these reports are not produced on time due to the challenges in reporting experienced at district level. Coverage data is only disaggregated by sex, but not other strategically important variables like age, or geographic zone. While coverage is reported for some interventions, there is less information on access to services (physical, financial and cultural access) and barriers to access.

On programme monitoring, the M&E assessment notes the inconsistent data flow, under-resourcing, and poor standardisation of data collection mechanisms, reporting and data audit. Districts face the challenges of inconsistent data from some implementing partners and the lack of functional M&E systems at implementer level. Some types of data are considered unreliable and there are cases of inconsistent reporting (e.g. double counting of condoms at central and decentralized levels). National and sub-national databases still require strengthening in order to be fully functional and to be able to link national and sub-national data.

Expenditure tracking

Financial monitoring is done on a routine basis as part of programme management. In 2007, Lesotho conducted its first **National AIDS Spending Assessment (NASA)** for the 05/06 and 06/07 fiscal years, and it is envisaged that the NASA be institutionalised as an M&E data source under the NAC with annual data collection (see section 4.5 for NASA findings). The NASA provides invaluable data on spending priorities, despite its limitations (e.g. difficulty in extracting HIV/AIDS-specific expenses from others, such as laboratory testing costs for HIV from overall expenses, and percentage of salaries of health and non-health personnel working on HIV-related activities). It is hoped that the NASA data needs might trigger improvements in primary data collection, record keeping and the installation of financial systems at the level of implementers and M&E units.

Behavioural research

A few cross-sectional studies have been commissioned by the MOHSW, such as the first round of the **Behavioural Sentinel Survey (2002)** and the **Lesotho Youth Identity Survey (2005)**. Furthermore, CIET conducted **KAP studies** in 2002 (baseline) and 2007 (follow-up). Qualitative studies are few, but a strategically important one is the **Gender and Multiple and Concurrent Partnerships Study** by NAC/UNAIDS/FHI (ongoing at time of report writing). Coordination of HIV and AIDS related research is underway through the NAC, which adopted a research agenda in 2007.

Two studies have assessed the **sexual behaviours of MARPs**: the 2001 cross-border assessment (truckers, miners, informal traders, mobile sex workers) and the 2002 BSS (youth, miners, soldiers, taxi drivers, low income migrant women, sex workers) – see section 3.6.1.7 for findings. A **size estimation study** of the sex worker population using the Delphi method was conducted in 2007 (UNAIDS/UNFPA) and found an estimated 433 SWs in the country, which is thought to be an underestimation. No size estimation has been conducted on men who have sex with men in Lesotho (see section 3.7.1), and additional research is needed to identify the size, risks and specific HIV prevention needs of Lesotho's MSM population.

The use of data for strategic planning and program implementation

The M&E framework provides for the following information products: The Quarterly District Service Coverage Report, Quarterly National Service Coverage Report, Annual AIDS report, Country AIDS Profile, and regular information updates via the NAC website. The key forum for disseminating strategic information is the **Quarterly Partnership Forum**, where the QSCR and other strategic information (from

quarterly partnership reports, district feedback reports, etc) are presented to stakeholders. So far, 7 national partnership fora have been held, and 9 districts have held at least one partnership meeting. The 2008 UNGASS report stressed that there is limited data use due to the planning cycle not being synchronized with the reporting cycle; and limited advocacy for the use of strategic information (SI). The review did not obtain any information or examples on how SI has affected decision-making in planning and resource allocation at national and district levels, but this report provides elements which suggest that Lesotho's prevention programme is not sufficiently evidence-informed, and that rigorous evaluation activities need to be promoted in order to know "what works", and then focus resources on effective interventions.

4.3. HIV prevention programmes and activities

In this section the findings from the HIV prevention review are presented under 11 subheadings identified as key interventions in the review. It is important to note that this review focused on these key prevention programmes in the country, but there are also other prevention sub-programmes not reviewed.

4.3.1 Mass media and IEC interventions

a. Major programmes and key messages – The review identified 11 prevention programmes implementing mass media or IEC interventions. The implementing organization, key message, target population and coverage are shown in Table 7.

Table 7. Mass media programmes in Lesotho (2008)

Implementer	Key Message	Target Population	Coverage
ALAFa	No specific message	Textile workers (men & women)	Not national
Blue Cross	Drugs are dangerous	Youth	Not national
Lesotho Red Cross	Promote abstinence and condom use	Youth	Not national
LPPA	Planned parenthood is key to health life	General population	Not national
Ministry of Gender	Stop Violence and Abuse	General population	National
PEPFA	Education to reduce stigma	General population	National
PHELA	Understand the Epidemic	General Population	National
Positive Health	Know Your Status	General population	National
Skillshare	Involvement in HIV and AIDS interventions	General population	Not national
UNICEF	Knowledge about HIV & AIDS to youth	Youth	National
World Vision	Promote condom use and behaviour change	Men (no specific age)	Not national

Source: MoT implementers interviews

b. Target audience and type of intervention - Most of the programmes target both males and females of all ages (the 'general population') and few programmes focus on specific age groups or target groups. Most of the mass media and IEC interventions use radio dramas, television programmes, booklets and posters. Messages are disseminated during radio slots and at public gatherings. IEC is mainly provided through peer education in churches, interpersonal communication, games, puppetry, music and the print media.

Prevention programmes that use mass media and IEC often base their programme on an identified problem (drug abuse, low involvement of males on HIV issues, low knowledge on HIV or AIDS, gender violence, lack of income generating activities, poor attitudes towards HIV and AIDS, risk behaviour), or hypothesis of what might bring a desired change.

c. Reach and impact of the programmes - In general, these prevention programmes do not reach specific groups due to their delivery mode. Most of the prevention programmes identified are fairly new and have not yet been evaluated - of the few evaluations done, no report could be obtained. Few programmes that deliver messages through peer education have specific target populations; generally they cover the entire community (no specific age groups, national coverage). There are no estimates of the numbers being reached by these programmes.

4.3.2 Behavioural interventions

a. Major programmes and key messages - The behavioural interventions as per the framework for classifying HIV prevention interventions (UNAIDS, 2008b) include risk reduction, life skills/family life education, social mobilisation, interpersonal education and education to promote adherence to universal precaution. This set of interventions include about 23 prevention programmes by PSI, Lesotho Correctional Services, LIRAC, Line Ministries, LENEPHWA, Scripture Unions, Lesotho Youth Federation and CARE Lesotho to mention a few. The programmes mainly focus on particular behaviours which they intend to change, like condom use, abstinence and being faithful to a partner, knowing one's status (which could lead to changes in risk behaviour or discrimination). The main messages address abstinence and faithfulness of partners, involvement of males, promotion of self-reliance, and "Know Your Status".

b. Target Audience and Type of intervention - Most prevention programmes focus on the age group 12-35 for both males and females since it is the most economically productive population; some target in-school youth and students at educational institutions. Younger age groups are also targeted, particularly in churches, schools and the communities. The interventions include life skills, skills training, income generating activities, awareness training skills and educational skills transfer. Most of the interventions are delivered through workshops, community gatherings, health talks, counsellors, group counselling, and training of trainers. The interventions are often adopted with the belief that direct communication to the communities will help to intensify their understanding and appreciation of key HIV issues.

c. Impact and reach of the programmes – Most behavioural interventions had not been evaluated to assess impact. However, implementers had expected the KYS review to evaluate impact. Of the 23 behavioural programmes identified, 15 have national coverage and 8 cover several districts (a few cover only one district). Most behavioural programmes do not clearly define their target population. Programmes that have target numbers to reach reported that they had far exceeded the target number, but in most cases there were no data/estimates available. However, in some instances evaluations were either just about to be initiated or reports were in the process of being drafted post evaluation.

4.3.3 Condom distribution

a. Major programmes, key messages, sources of condoms - In Lesotho, quantification and procurement of both male and female condoms is done by the MOHSW but occasionally through PSI, and other agencies also procure and distribute condoms. There were 9 programmes identified which undertake condom distribution - table 8 shows the programmes, their target population and coverage.

Table 8. Condom distribution programmes in Lesotho (2008)

Prevention programmes	Key Messages	Target Population	Coverage
ALAFA	Take care of yourself	Apparel workers	Not national
CARE Lesotho	Use condoms as a protective measure	Youth, miners, SW, apparel workers	Not national
LENEPHWA	Use condom as a protective measure	General population	National
Lesotho Red Cross	Use condom if sexually active, otherwise abstain	Married couples, esp. males	Not national
Line Ministries (Min. Communications)	Stop unprotected sex and use a condom	Staff members of all ages	National
LPPA	Planned parenthood is essential	General population	Not national
MOHSW	Encourage condom use (male and female)	General population	National
Partners in Health	Stop the spread of HIV & use condoms	General population	Not national
Police (AIDS Unit)	Condom use is essential	General population	National
PSI	Condoms reduce risk of infection	General population	National

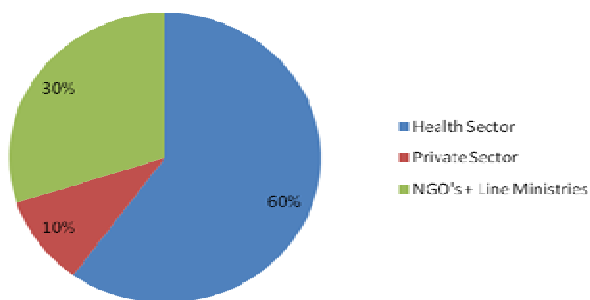
Source: MoT implementers' interviews

Table 8 shows that the messages around condom distribution range from using condoms as a strategy of prevention against the HIV virus to condom use being essential. It further indicates the condoms are distributed to the general population or to very clearly specified populations.

b. Number of condoms distributed, trends and use of condoms

Most condoms are provided by the government free of charge; some condoms are provided to the government through a donor. Commercial and socially marketed condoms are also available, although data on condoms in the private sector are poor. There is little distribution of female condoms, and the scarcity of female condoms in communities is of concern for implementers at district level. There are no studies or routine data on condom usage for either female or male condoms;

Figure 28. Proportion of condoms distributed in Lesotho (2007/08)



Source: Global Fund round 2 condom statistics

Figure 28 shows that 60% of condoms are distributed through the health sector; 30% through NGOs and other line ministries, and 10% by the private sector. PSI was recently contracted by the MOHSW to distribute 1,000,800 condoms procured through UNFPA in 2007. The contract covered distribution of male condoms only and there are no clear data on the number of female condoms available in the recent stock. PSI distributed the condoms between April and July 2008 to 80 rural and urban health facilities, inclusive of hospitals and health centres.

Figure 29. Condom distribution by district, GF round 2 grant, FY 2007/08

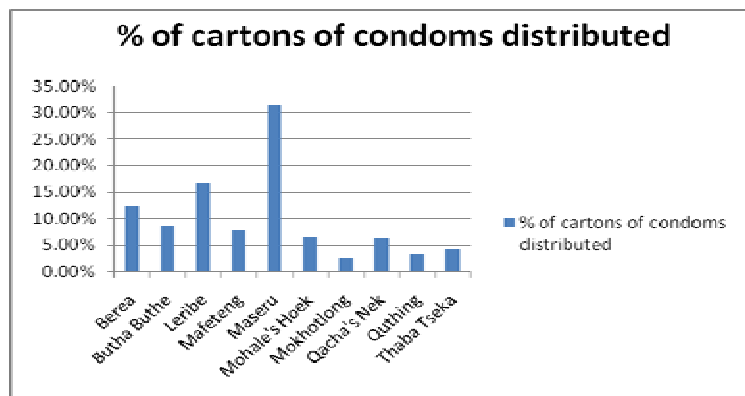


Figure 29 illustrates the share of condoms distributed in each district under the Global Fund Round 2 grant during the last quarter of the Financial Year 2007/08 and first quarter of 2008/09. There is however poor data on the numbers that are stored especially of the 12 million condoms UNFPA procured in 2007.

Source: Global Fund round 2 report FY 2007/2008

4.3.4 HIV testing and counselling (HTC)

a. Major programmes, key messages and impact of KYS on HTC

The MOHSW is the main implementer of HTC, particularly through health facilities. Christian Health Association of Lesotho (CHAL) - though their health facilities – and LPPA, ALAFA, DFID, Baylor College, PSI and others are also involved in HTC provision. Most HTC is implemented at clinics, hospital, resource centres, such as LPPA resource centre and Maseru Central Correctional Institution (MCCI) HCT site. Most key messages were planned around the KYS project messaging. The KYS project was initially aimed at enabling people to know their HIV status through quality HTC as a gateway to other HIV care services. A KYS evaluation (mainly process evaluation) was undertaken and during 2006/07, a target of about 70% was set for the population above 12 years of age (1.3 million people) to have been offered and undergone HTC and been given the test result. At the end of 2007, only 19% of the target population had tested and knew their status (table 9).

Table 9. KYS data from Lesotho, 2006 and end of 2007

District	Population	Estimated # of people above 12 years	Cumulative # of people above 12 years reached by HTC and know their status		KYS Coverage
			2006	2007	
Berea	256,496	179,547	4787	9012	8%
Butha- Buthe	109,529	76,670	4293	12432	22%
Leribe	298,352	208,846	11021	26047	18%
Mafeteng	193,662	135,577	13,678	38600	39%
Maseru	429,823	300,876	26,948	40141	22%
Mohales Hoek	174,924	122,447	7,857	15191	19%
Mokhotlong	96,340	67,438	743	4114	7%
Qacha's Nek	71,876	50,313	3975	9532	27%
Quthing	120,502	84,351	4117	7211	13%
Thaba Tseka	129,137	90,396	1975	6672	10%
Lesotho	1880,661	1,316,461	79394	168,952	19%

Source: MOHSW 2008c

b. Reach, coverage, impact and KYS achievements - Some HTC interventions had little or no data on the number of people tested and counselled, however a few had statistics: over 20,000 people were tested and counselled at the workplace through PSI; the Planned Parenthood programme was able to test and counsel 986 males, 2019 females and 1014 youth in 2007. The country has made significant strides in increasing the number of people tested and counselled, and 161 health centres offer HTC. These programmes generally are implemented nationally but some interventions cover certain districts only. The KYS programme achievements (shown in **annex 5** in detail) demonstrate, firstly, that the KYS brand name is recognized by people of all age groups and is believed to be a driving force in creating a demand for HTC services. Secondly, KYS had a visible and tangible effect both at the national and local levels, especially in reducing stigma and increasing knowledge of HIV and AIDS. Thirdly, 23% of HIV tests done between 2004 and 2007 were in community based settings.⁶⁹ Approximately 27,000 children received HTC and this age group was never in the plans for KYS. Overall, 31% of those tested in 2006-2007 were HIV positive.⁷⁰

Access to treatment improved with the introduction of KYS - 106 facilities around the country offer ART services and 20,240 adults and 931 children received ART in 2007. In the two years, 6,112 pregnant women received ART for PMTCT. KYS also built capacity, training over 3,800 persons as community-based care givers (CBCG), which included skills in HTC (about 80% were selected from the existing community health worker cadre). District teams were established. Better HTC monitoring systems were developed and set up.

c. Programme gaps identified through KYS -The KYS was able to identify ways to enhance project benefits in the future. Firstly, the KYS campaign was administered in parallel with the existing MOHSW STI/HIV/AIDS Directorate services, which resulted in duplication of efforts and confusion. Secondly, there were no incentive packages and/or payment for Community Health Workers who supported the campaign throughout. Different partners also understand the scope of KYS differently, and there are financial constraints on implementing planned activities. There are also poor social marketing structures and strategies in the districts, and the contribution of the mass media must be improved. Community or district teams need to be trained and develop competence on HTC issues, a referral system needs to be strengthened for infected and affected persons, and data management must be enhanced.

4.3.5 Prevention of mother-to-child transmission

a. Major programmes, key messages and drugs - Table 10 presents prevention programmes that provide PMTCT services. The main service provider is the MOHSW through its facilities. The roll-out of PMTCT

⁶⁹ Annual Joint Review Report - 2007/08. MOHSW, February 2008

⁷⁰ Community HIV testing and counselling "Know Your Status" Campaign. Lesotho, MOHSW, 2008

services increased the number of sites from 37 in 2006 to 166 by the 3rd quarter of 2008. PMTCT services are provided in all ten districts in Government and CHAL health facilities. Partnership was strengthened among the programmes implementing PMTCT leading to an improvement in the technical quality of PMTCT services, greater uptake of HIV testing, introduction of a new ARV prophylaxis regimen and improved uptake of the new regimen (AZT/sd-NVP/3TC). Furthermore, the partnership began care and treatment support in almost all sites with a particular focus on HIV-exposed infants and ensuring cotrimoxazole prophylaxis.

Table 10. PMTCT programmes in Lesotho, 2008

Programmes	Key messages	Target population	Coverage
ALAFA	Take care of yourself and your baby	Females aged 18 and above	Not national
Baylor College	Ever pregnant mother must get HIV tested	Child bearing age mothers	Not national
Clinton Foundation	All women tested before giving birth	Child bearing age mothers	National
DFID	No specific message	Females aged 18-40 years	Not national
EGPAF	Mothers give birth at health facilities and husbands get tested	Females of reproductive age (15-49) & pregnant adolescents (15-19)	National
ICAP	Improved health care for pregnant mothers	Females at reproductive age	Not national
Lesotho Red Cross	Men involved in PMTCT, reduce infant mortality	Child bearing age mothers	National
MOHSW facilities	Decentralise PMTCT service at all level for all pregnant mothers	Child bearing age mothers	National
Partners in Health	Pregnant mother need to know the importance of PMTCT	Females aged 13-50 years	Not national
PEPFAR	MTCT is key for pregnant mothers and care support given to husbands	Child bearing age mothers	Not national
UNICEF	Exclusive breast feeding, promotion of ANC	General population (males/females)	National
World Vision	KYS for pregnant mothers	General population (males/females)	Not national

Source: MoT implementers' interviews

b. Reach, impact and data gaps - PMTCT coverage has increased from 5% in 2005 to 31% in 2007 when 23,965 pregnant women were tested, 5,539 were found positive and 3,966 received ART (table 11). However, only 71.6% of positive mothers and 77.2% of babies are receiving HAART or ARV prophylaxis.

Regarding private programmes implementing PMTCT, the statistics are either missing or integrated into national figures (above). Their reach has also increased - in 2008, 19 hospitals and 147 health centres and private clinics provided PMTCT services – almost all of the 167 health facilities in the country. Collaborative efforts led to the development of the PMTCT data collection instruments that are being used. Service data are not complete due to a poor follow-up system for pregnant mothers and their children, but efforts were made to strengthen PMTCT monitoring.

One of the major gaps identified by implementers of PMTCT programmes was that there is little demand for female condoms and condoms were piling up and there was poor distribution. HIV testing is done for all pregnant women with pre-test and post-test counseling. IEC material is provided at facilities --but not adequately to ensure that pregnant women understand risks involved during pregnancy. LPPA provides IEC and education for couples, pregnant women and those planning their families, which should be made available in all health facilities.

Table 11. Annual PMTCT statistics 2004-2007 including Q1-Q3 of 2008, Lesotho

Indicators	2004	2005	2006	2007	2008
# facilities providing PMTCT	9	22	37	136	166
# of clients pre-test counselled	2 764	10 684	13 047	26 293	24066
# (%) clients tested counselled	2 764 (41.2%)	5 459 (51%)	9 277 (71%)	23 965 (91%)	24921
# of clients post-test counselled	2377 (86%)	4913 (89%)	7 168 (77%)	23 196 (97%)	23832
# of clients HIV positive	845 (6.3%)	1 489 (11%)	2 592 (19%)	5 539 (43%)	6199
# of clients who received ARV prophylaxis	421	779	2 005	2799	3605
# clients who received ART		26	219	1167	1569
# of clients who received ARV Prophylaxis & HAART	421 (49.8%)	805 (54.1%)	2224 (85.8)	3966 (72%)	5174
# of deliveries				17 656 (35%)	14840
# of HIV positive mothers delivering live births				3 584 (28%)	3567
# of babies who received ARV prophylaxis			1 839 (82%)	2 767 (77%)	3299
HIV test uptake	40%	51%	71%	91%	95.6%
PMTCT Coverage	3.1%	5.9%	16.5%	31%	

Source: MOHSW 2008 PMTCT statistics

4.3.6 STI treatment

a. Major programmes, key messages and impact - STI treatment is provided by the STI/HIV&AIDS Directorate of the MOHSW, which is responsible for management of STI's in all the ten districts through the health facilities, and ALAFA which operates in health centres around factories. The Directorate is also responsible for data collection on STIs and most of the supply of STI drugs. STI management is offered through out patient departments (ODPs) of all Government and CHAL hospitals except in QE II (Maseru) and Motebang hospitals (Leribe), where STIs are treated outside the OPD. The ALAFA programme focus is on female and male apparel workers aged 18 years and above in three districts with textile and shoe factories (Maseru, Leribe and Mafeteng) and high prevalence as indicated in the KYE section of this report.

b. Reach, impact of the programmes and data gaps - The 2008 ALAFA study reported that about 1 in 5 respondents had experienced an STI in the last 6 months and there were more women with STIs (22%) than men (16%). National statistics from MOHSW show that STIs are among the top 10 causes of OPD attendance and in 2007, 8% of OPD contacts were STI clients (80,905 of 993,019). Syphilis prevalence in ANC clients decreased from 2.9% (2003) to 1.4% (2007). STI management was strengthened through the SADC/DFID project, which ended in August 2006. Through this project STI sentinel surveillance was piloted in 20 sites in Maseru and Leribe. STI awareness and supply of medicines was strengthened and the directorate also conducted a Drug Sensitivity Survey with support from Ireland Aid, SADC/DIFD and STI Reference Centre in South Africa. Data collection and capture has long been finalized but report writing was delayed because of capacity. When finalized, the findings will inform STI treatment guideline under review.

Table 11: HIV and Syphilis Trends in the 2003, 2005 and 2007 Sentinel Surveys

Year of Survey	HIV Prevalence	Syphilis Prevalence
2003 ANC Sentinel Survey	28.9%	2.9 %
2005 ANC Sentinel Survey	27.0%	2.2%
2007 ANC Sentinel Survey	25.7%	1.4%

In a sample of 820 STI clients drawn from Maseru and Motebang STI sentinel sites during the 2007 HIV Sentinel Survey, 56.2% were positive for HIV. However the overall trend of HIV and Syphilis are similar – on the decline as indicated in table 11.

4.3.7 Male circumcision

As per the recent report *Male Circumcision (MC) in Lesotho: Situational Analysis Report* by the MOHSW (2008b), evidence from several sources indicates that about 15,000 circumcisions occur each year in the country; It is estimated that 4000 – 6000 are provided in health care settings but most are performed at initiation schools as part of *lebollo* (see section 3.6.1.3). The desk review in the situational analysis did not identify any documents describing the traditional initiation practice.

Currently only medical doctors are authorized to perform clinical circumcisions in Lesotho, and these are performed at district hospitals, filter clinics and by private surgeons. The current age of consent to circumcision is 21, below which parental consent of the patient is required. The price for a circumcision varies from M 50 in government facilities to M 600 in the private settings ≈ US\$ 5-60 (MOHSW 2008b)

At Government and CHAL hospitals, circumcision is provided mainly in response to increasing demand from men seeking services at a clinical setting. QE II performs about 160 to 190 circumcisions a year and Motebang and Quthing hospitals do about 80 to 90 MC. The Mokoanyane Military hospital does circumcisions for soldiers, police officers, correctional service officers and parliamentarians. On average, the district hospitals perform 40-60 circumcisions per year. In addition, Lesotho Planned Parenthood Association conducts circumcisions (120-130 per year) through its male clinic in Maseru (MOHSW 2008b)

The report notes that to have an effect on HIV infection, national MC coverage of 52.5% would be needed (USAID as cited in MOHSW 2008b). Consequently, “approximately 34,798 MC would need to be conducted in 2008, increasing to 44,164 in 2012 before stabilizing at a lower level ... provision of MC needs to be scaled-up by a factor of 7 to begin to have an effect on reducing the HIV infection rate in Lesotho” (MOHSW 2008b) However, according to the situational analysis, only one third of the health centers “have enough facilities, equipment, and staff to conduct MC” (MOHSW 2008b). The report further concludes that to scale up safe MC would require “training, [and also]... equipment, facilities and the recruitment of more health professionals” (Ibid.)

The report notes that currently no coordinated MC interventions exist in Lesotho, and the only educational material available is an informational leaflet produced by LPPA for distribution in its one Male clinic in Maseru. However, Lesotho has embarked on a process of creating the policy context and service capacity for massively scaled-up MC using both the modern health sector and the traditional circumcisers in a concerted national intervention.

4.3.8 Blood safety

The Lesotho National Blood Transfusion Service (LBTS/MOHSW) is the only centre in Lesotho that recruits blood donors, collects, screens, stores and distributes blood to all hospitals in the country. Its main goal is to provide adequate and safe blood and blood products to all hospitals in the country on requirement. Blood is mainly drawn from the age group 16-25. About 60% of the blood donated is from school students and teachers, 25% is from community members donating in health centres, 12% is from private and public sectors, and 3% is from family members donating blood to other members of the family (2007 statistics).

For the last three years, LBTS did not achieve its goal of collecting 9,000 units of blood which is the country requirement. The blood bank was only able to collect 32% and 34% of the target in 2006 and 2007 respectively, and arrangements were made with private organisations for teams to collect blood from volunteers. An MOU was signed between MOHSW and the Lesotho Red Cross, and the National Blood Transfusion Policy was approved. Regarding blood safety, **all blood units collected were screened for**

transfusion transmissible infections (TTI) (100%). In 2006 and 2007 the prevalence of HIV among donors of blood was 4.7% and 4.2%, respectively. Table 12 also shows TTI prevalence for hepatitis B and C and syphilis. Key challenges that LBTS faces are inadequate human resource, transport and infrastructure.

Table 12. Blood safety and transfusion statistics in Lesotho (2006-07)

Activities	2006	2007
Mobile Clinics Visited	146	136
Units of blood collected from mobile	2230	2308
Static sites (LBTS)	663	727
Total blood collected per year	2,892	3,035
Repeat Regular Donors	489 (11%)	495 (11%)
Family Replacement Donors	23	77
Transfusion Transmissible Infections (TTI) prevalence		
HIV Positive	135 (4.7%)	126 (4.2%)
HBsAG	36 (1.2%)	45 (1.5%)
HCV	10 (0.3)	10 (0.3%)
Syphilis	3 (0.1)	7 (0.2%)

Source: MOHSW 2008c

4.3.9 Post-exposure prophylaxis

The intention of the PEP programme is to provide the service to all victims of rape and to health care providers upon accidental exposure. PEP is provided at hospitals and at a few health centres (all 10 districts covered). It was started as a part of the overall Infection Control Strategy, and PEP registers and kits have been distributed and PEP-related training has begun at district level.

4.3.10 Social mobilisation

Social mobilization has been defined as “the process of bringing together all feasible and practical inter-sectoral allies to raise awareness of and demand for a particular programme, to assist in the delivery of resources and services and to strengthen community participation for sustainability and self-reliance” (WHO, 2006). The MOT prevention review found **only one prevention implementer which explicitly saw mobilization as its key activity** - this was ALAFA and they mobilize workers to participate in HIV/AIDS activities provided by ALAFA in the factories during lunch breaks. An additional **13 interventions in Lesotho have elements of social mobilization** in addition to their main activity. For example, Partners in Health hold male-focused discussions whose objective is to educate participants on HIV, however the overall intervention is around male involvement and the key messages are for men to be more involved in the HIV response. Similarly, Skill Share has an intervention with the overall objective to strengthen PLHIV, and part of this includes community mobilization. The Federation of Women Lawyers (FIDA) also provides training for community leaders to advocate for the rights of women. The main delivery mode for community mobilization interventions is community dialogue, and public gatherings. Only 2 of the interventions were targeted for a specific age group (Lesotho Red Cross targets 12-25 old males and females and ALAFA targets factory workers aged 18 years and above). Targeted sub-populations includes OVC, men, women, community leaders, mothers-in-law and pregnant women (PMTCT), and youth. The interventions with a community mobilization element address issues such as demand for PMTCT, women’s rights, male involvement, and reduction of stigma.

4.3.11 Environmental interventions

The Ministry of Gender, Youth, Recreation and Sports (MOGYRS) and FIDA were the only organisations implementing interventions that are considered environmental - they concern issues around legislation and its implementation. FIDA is training the general population on human rights issues. This is usually implemented through community leaders in public gatherings, however coverage is not national. The

MOGYRS implements their programmes through information dissemination to various organizations and line ministries. The Ministry has national coverage for the general population but again, there are no data on the proportion of the population reached. The key messages from the two programmes are to encourage people to know about their human rights and protection against violence, especially for children and women. There are also prevention programmes that focus on training service providers and law enforcement personnel in human and civil rights particularly to raise awareness on legal issues.

4.4. District prevention review meetings

District review meetings were held in all 10 districts in Lesotho. The aim was to introduce the MoT study, and discuss with key implementing partners (line ministries, NGO's, FBO's, CBO's and civil society organizations, as well as private actors) the strengths and weaknesses of the current prevention programmes in their districts. The participants were also asked to make recommendations for improving the district HIV prevention response. It is important to note that the information gathered in the district review meetings cannot be used to determine the coverage, scale, intensity nor the quality of the services provided, but should rather be seen as a brief overview of the district HIV prevention response as perceived by the actors.

Table 13. HIV prevalence and number of prevention activities by district, 2008

District	HIV prevalence	Prevention activities
Leribe	29.7	7
Maseru	25.5	10
Berea	24.0	15
Quthing	23.2	12
Mafeteng	21.6	8
Mohale's Hoek	20.7	10
Qacha's Nek	20.6	5
Butha-Buthe	20.2	16
Thaba-Tseka	18.2	7
Mokhotlong	17.7	13

Sources: LDHS 2004 and district meetings

District representatives were asked to list all key prevention interventions. The highest numbers of key prevention activities were listed by Butha-Buthe (16) and Berea (15) (table 13). Leribe and Qacha's Nek only listed 5 key prevention activities each, even though – according to the 2004 DHS - Leribe has the highest HIV prevalence of all districts in Lesotho.⁷¹ The only HIV prevention activity listed by all 10 districts was **PMTCT**, and even though it was listed as a key strength in 7 of the 10 districts, there were some issues raised particularly with districts experiencing challenges related to decentralization of PMTCT services to health centres (table 14). Six districts listed **PEP** as a key intervention, none listed it as a key strength. Two districts mentioned the lack of decentralization of PEP services as a key weakness, and suggested that PEP should be made available in all health centres.

Table 14. Frequency of different interventions implemented in Lesotho's districts (2008)

# of Districts	District priority prevention activities
10	PMTCT
9	HTC/ routine testing
9	Male condom distribution
7	IEC
6	PEP
5	BCC – abstinence, faithful to one partner
5	Health education
5	KYS
5	Male Focused Discussions
4	Drama/puppetry
4	Life skills

HTC was listed as a key prevention activity in all districts but Qacha's Nek, and mentioned as a key strength in 7 of 10 districts. Strengths of HTC included the KYS campaign, and the introduction of routine testing (some districts reported having adequate systems to deliver HTC services). Key weaknesses in relation to HTC were lack of proper referral systems for those testing positive and lack of adequate post-test counselling for those testing negative. Recommendations for HTC included advocacy work around routine testing and putting referral systems in place, together with delivering high quality post-test counselling with a focus on changing high risk behaviours.

Qacha's Nek also was the only district not to list **male condom** distribution as a key HIV prevention activity. Unfortunately, only two districts listed condom access and distribution as a strength in the district HIV response. Key

⁷¹ It is worth noting that the number of interventions does not necessarily indicate the total size or coverage of the intervention (i.e. a few large-scale interventions may be more relevant than many small-scale interventions)

weaknesses related to male condoms included lack of education on how to use condoms, lack of distribution through dispensers and in hard to reach areas. Three districts had recommendations for condom programming and procurement which included increasing the number of condom dispensers in “hot spots”, increasing accessibility in hard to reach areas, and establishing one body to procure and distribute condoms. Three districts also mentioned **female condoms** as a key priority intervention; however, 5 districts reported a lack of female condoms, which clearly is a challenge to the HIV response.

IEC was listed by 7 districts as a key prevention intervention, but only one district listed it as a key strength. However, 5 districts identified IEC as a key weakness. There were quite a number of recommendations related to IEC materials with the most frequent comment being that materials should be translated into Sesotho rather than being produced in English. Additional key recommendations include standardizing messages across different service providers, the need to revise the content, and improve the flow of information and materials from central level.

One of the most frequently listed key weaknesses of the district response was the lack of **resources**, which include lack of funds and lack of transport. Five of the districts made recommendations related to resources, including the need to decentralize resources together with timely approved budget allocations and timely dispersion of funds. For transport it was suggested that a joint inter-institutional travelling schedule be developed to avoid duplication together with allocating more vehicles to the districts.

Only three districts mentioned **community** talks or public gatherings as a key prevention activity, but five out of the 10 districts listed involvement of the community as a key recommendation. It was mentioned that the community should be involved and mobilized to become more engaged in the response. It was also stressed that communities should be consulted and that there is a need for a more bottom-up approach.

Four districts listed **male involvement** as a key issue to improve. Recommendations included opening male only clinics, encouraging male involvement during pregnancy and holding male-focused discussions. At the same time, 5 districts did list male-focused discussions as a key prevention activity, and 2 districts even noted male-focused discussion as a key strength.

Three districts, Butha-Buthe, Leribe and Mafeteng, listed **coordination** of or collaboration between stakeholders in the HIV prevention response as a key strength, whilst 9 districts listed coordination as a key weakness together with poor collaboration among stakeholders, poor communication among stakeholders, and poor information dissemination from central level.

In summary, some of the **key strengths** identified by the implementation partners are: skilled and dedicated personnel, readiness to deliver services, political commitment, promotion of positive living, and training of traditional healers and herd boys. **Key weaknesses** raised were: cultural barriers, donor-driven activities which lead to non-collaboration, and inadequate infrastructure.

Key recommendations from prevention partners:

- Improve service provision in hard-to-reach areas through mobile clinics;
- Increase funding for projects in hard-to-reach areas and use mass media to disseminate information in such areas;
- Increase behaviour change activities;
- Improve utilization of the Essential Services Package (ESP) structure as a gateway to service provision;
- Improve donor collaboration and harmonization at district level;
- Improve reporting through strengthening the M&E systems, producing timely monthly reports, and compiling reports on village activities from the ESP; and
- Improve coordination (joint planning at district level, quarterly prevention forums, use of innovative communication ways for feedback and dissemination, formation of district task force on prevention).

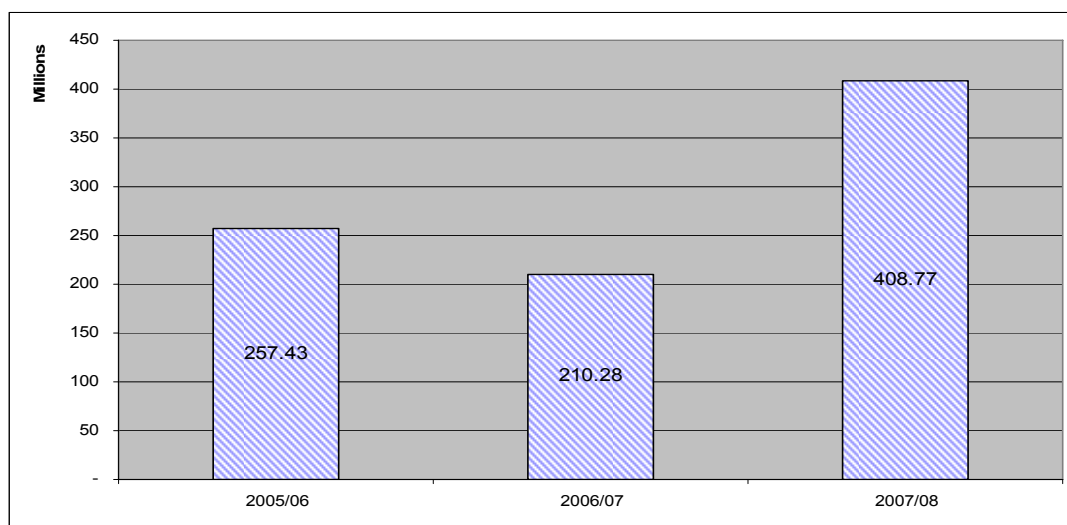
4.5. HIV prevention resources

The results of the National AIDS Spending Assessment (NASA) presented in this section cover the financial years 2005/06 and 2006/07. The assessment was conducted during the financial year 2007/08; expenditure figures for that third year are not complete (but mentioned in a few instances). Amounts are in Maloti unless specified, and only expenditures reported to the NASA team are presented in the analysis.

4.5.1 Total Expenditure on HIV and AIDS in Lesotho (NASA Findings)

Total expenditure in financial year 2005/06 was M 257.43 million and M 210.28 million in 2006/07 (figure 30).⁷² Expenditure on HIV and AIDS in 2007/08 is estimated at M 408.77 million.

Figure 30. Total expenditure on HIV and AIDS in Lesotho (FYs 2005/06-2007/08)



Source: NASA report, p19.

4.5.2 Expenditure Breakdown by AIDS Spending Category

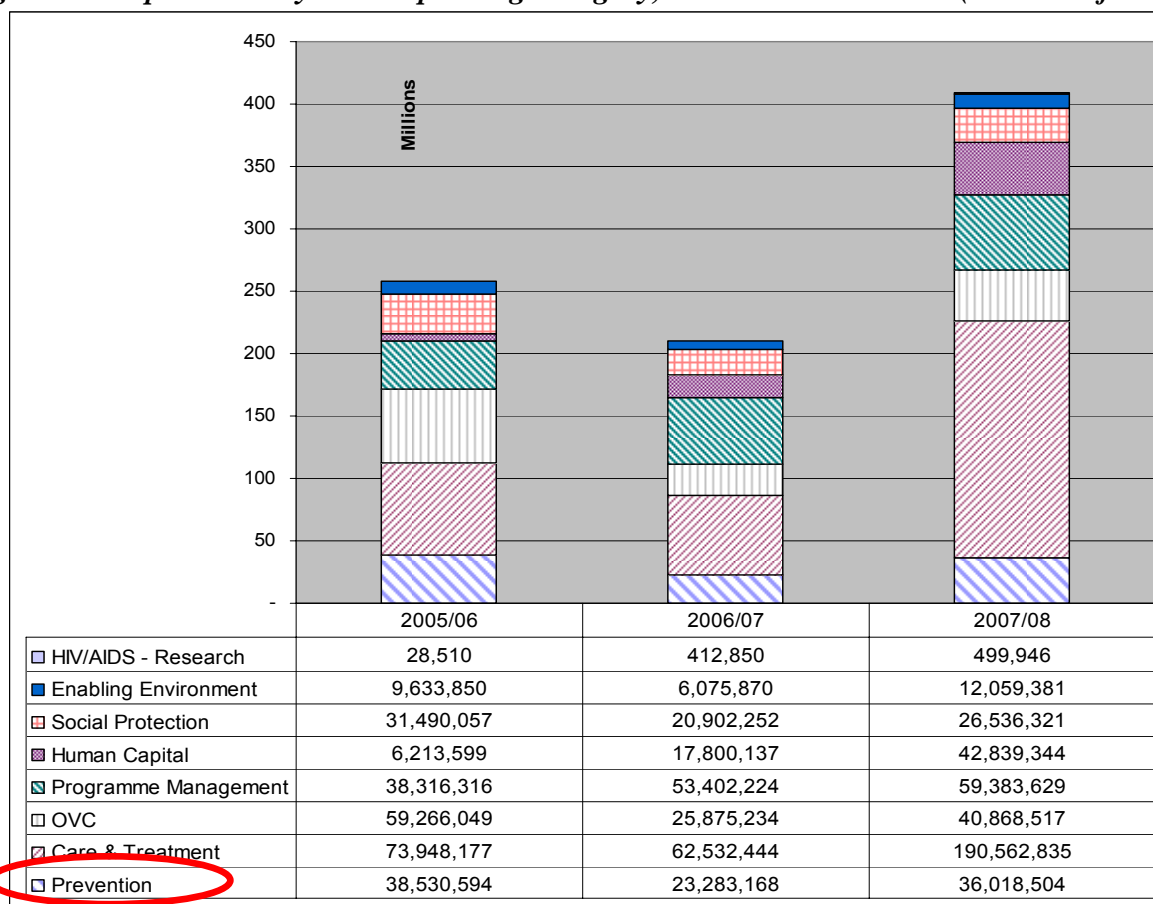
Treatment and care expenditure more than doubled from 2006/07 to 2007/08 due to the high contributions of public sources and external sources: public spending increased from M46.8 million in 2006/07 to M105.3 million in 2007/08, and external spending increased from M13.2 million to M84.9 million (see figure 31). The reduction in expenditure on prevention from M38.5 million in 2005/06 to M23.3 million in 2006/07 can partly be attributed to incomplete STI figures, but to a large extent the reduction was due to less being actually spent on prevention.

The statistics show that in 2006/07, only 10% of total HIV/AIDS funding was spent on HIV prevention (15% in 2005/06). In 2006/07, 33% of funding was spent on care and treatment, and 24% on programme management, followed by OVC support (13%), social protection (11%) and prevention (10%, in *fifth place*).

⁷² According to the NASA report, there are a number of causes for the apparent reduction in expenditure:

1. Expenditure under the GFATM grant fell substantially because 2006/07 was an interim period in the Round 2 grant
2. WFP's distributions to OVC and PLWHA was reduced in the financial year 2006/07.
3. Lack of bursary disbursement data from MoET for 2006/07.
4. There was an underestimation of the expenditure on STI (prevention), since OPD STI data were available for only one quarter in 2006.

Figure 31. Expenditure by AIDS Spending Category, FYs 2005/06-2007/08 (millions of Maloti)



Source: NASA report, p24

Expenditure on prevention activities

The NASA provides invaluable information on expenditure for different prevention interventions (figure 32). The data show large changes in spending per intervention category between consecutive years. The most striking finding is that **BCC and SCC interventions received only 2% of prevention funding in 2006/07**, dropping from M 6.7 million to M 0.4 million. The decrease in 2006/07 may be partly due to the lack of a costed BCC strategy for resource mobilisation at the time. **Social & community mobilisation** received more funding in the second NASA year, rising from 0.7 million M to 1.9 million M.

Annual spending also fluctuated for **distribution of free condoms**, falling from 2.9 million M to 0.6 million M. In contrast, expenditure increased for **condom social marketing** from 1.7 million M to 2.3 million M. Expenditure in the two categories combined decreased by 2.2 million M in year 2, which means that Lesotho spent substantially less on condom interventions in 2006/07 compared to the previous year.

HCT interventions have received considerable funding - expenditure decreased in year 2 due to the integration of the initiative into routine HCT services including those supported by the PSI New Start initiative. It is estimated that in FY 2007/08, the expenditure for activities classified as HCT will account for 59% of all prevention expenditure or M 13.75 million (an increase of 540% compared to FY 2006/07).

With the roll-out of **PMTCT** in 2007, expenditure increased from 2.8 million M to 5.5 million M (includes increased expenditure by UNICEF). Expenditure for **PEP** increased from 0.14 million M to 0.73 million M, mainly due to drug procurement by NDSO.

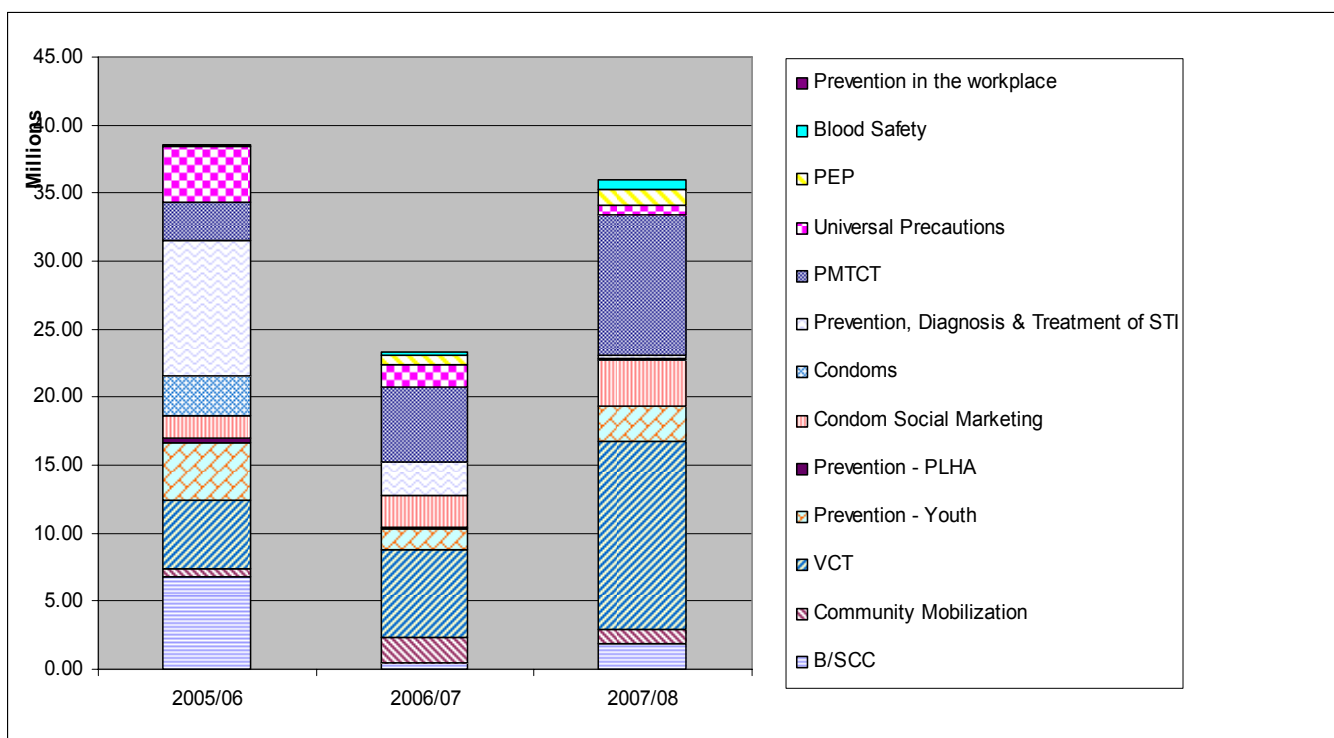
Expenditure on **positive prevention** was small - the NASA category “Prevention of HIV transmission aimed at persons living with HIV” was only reported on in 2006/07 (79,000 M). Although PLHIV see the largest expenditure directed towards them as a beneficiary group (care & treatment category), the NASA

reporting system detected very little expenditure for prevention activities targeted to them. WFP's distributions to PLHIV and their families fell in financial year 2006/07 (social protection category).

An expenditure decrease between the two years occurred also for **universal precautions** interventions (from 4.1 million M to 1.6 million M). Expenditure for **blood safety** was only reported for year 2 (0.2 million M).

Between the first and second NASA year, expenditure for research⁷³ increased seven-fold to 0.2 million M in 2006/07. Although this amount is still small (0.1% of the total HIV/AIDS budget in 2006/07), it is commendable that more resources have been allocated particularly to social science research related to HIV/AIDS.

Figure 32. Prevention expenditure breakdown for all sources in Lesotho (FYs 2005/06-2006/07)



Source: NASA report, p27.

4.6. KYR synthesis: a summary

ENABLING ENVIRONMENT FOR HIV PREVENTION

The policy environment in Lesotho has recently been strengthened, with 6 relevant national policies (HIV & AIDS, HTC, adolescent health, blood transfusion, OVC, Youth) approved in 2006 alone and the Education Sector HIV & AIDS Policy in 2007. Important legislative additions are the Legal Capacity of Married Persons Act of 2006 (which provides for the removal of minority status of married women and overrides common law), and the 2003 Sexual Offences Act (which introduced a series of sexual offences and recognizes marital rape as a criminal offence given certain conditions). The Lesotho HIV and AIDS Bill was established to create a legislative framework for Lesotho's national response to HIV and AIDS within the context of the national constitution and stipulates the responsibility of the MOHSW in providing accessible prevention services. Furthermore, there are a number of approved guidelines relevant to prevention: PMTCT, STI treatment, HTC, ART and PEP. Thus the policy framework for HIV prevention in Lesotho is comprehensive, however, there is, according to the Government's UNGASS report, "a strong

⁷³ Social science research, research and capacity strengthening (excluding operations research)

need to operationalise these policy commitments into action". The reviewers were also informed that inadequate resources makes enforcement of the laws problematic.

STRATEGIC INFORMATION FOR HIV PREVENTION PROGRAMMES

The country has a National HIV and AIDS policy, a National Strategic Plan (2006-2011) which includes universal access targets for HIV prevention, and a costed Monitoring and Evaluation Framework (2006-2011). The review could draw on key informant information gathered for the 2008 UNGASS report, and the detailed M&E Assessment conducted in May 2008. The general picture is that the M&E system functions quite well at the national level, but is weak at the district level, and information does not easily flow between the central and decentralised levels. In the M&E system, surveillance data, survey and research data, as well as routine activity monitoring data and financial data are brought together to track service delivery functions (outputs) and their effects at outcome (behaviour) and impact level (HIV prevalence). There is scope to strengthen the national and sub-national monitoring systems, to conduct more evaluation studies and develop a more evidence-informed prevention response.

IMPLEMENTATION OF HIV PREVENTION PROGRAMMES

The review identified 11 programmes implementing **mass media or other IEC interventions**. Most programmes target both males and females of all ages (the 'general population') and few programmes focus on specific age groups or target groups. Only one of the 10 districts listed IEC as a key strength, and 5 districts identified IEC as a key weakness. Regarding **behavioural interventions**, 23 prevention programmes were identified, of which 15 have national coverage. Most prevention programmes focus on the age group 12-35 for both males and females, and some target in-school youth and students at educational institutions. Younger age groups are also targeted, particularly in churches, schools and the communities. There is a lack of evaluation studies regarding behavioural intervention outcomes.

There were 9 **condom interventions** identified, the most important being those implemented by the MOHSW (free distribution) and PSI (socially marketed condoms). There are challenges around condom distribution and logistics, with both male and female condoms stuck in warehouses or depots while there are shortages at the peripheral level.

Concerning **HTC**, the MOHSW is the main implementer; CHAL and other actors also provide HTC services. Most key messages were planned around the KYS messaging. The KYS campaign was initially aimed at enabling people to know their HIV status through quality HTC as a gateway to other HIV care services. At the end of 2007, 169,000 people above 12 years knew their status through the KYS campaign. Actors identify the lack of a proper referral system for those testing positive and lack of adequate post-test counselling for those testing negative as the main weaknesses.

The MOHSW is not solely responsible for all prevention services in the country, but plays a particular role in prevention activities particularly the biomedical HIV prevention services in the country through various health facilities.

PMTCT services are provided in all ten districts in both Government and CHAL health facilities. With the roll-out, the number of PMTCT sites increased from 37 in 2006 to 166 by the third quarter of 2008, and coverage increased from 17% in 2006 to 31% in 2007.⁷⁴ However, only 71.6% of positive mothers and 77.2% of babies are receiving HAART or ARV prophylaxis, and several districts find the decentralisation of PMTCT a big challenge.

For **STI treatment**, the main implementers are the STI/HIV&AIDS Directorate of the MOHSW - which is responsible for service provision in all the ten districts through the health facilities - and ALAFA operating in health centres around factories.

⁷⁴ Estimates for PMTCT coverage at the end of 2008 are not yet available -- the number of health facilities providing PMTCT services has increased since 2007, so coverage is also likely to have increased.

Male circumcision services in the health sector are still few (Government, CHAL and Mokoanyane Military hospitals, LPPA male clinic) and the majority of circumcisions taking place currently are of a traditional type, performed in initiation schools.

Blood safety measures are well developed and the key challenge remains to collect sufficient blood from low-risk donors in order to meet the demand for blood units. **PEP** services have been strengthened and are provided in all 10 districts.

The review found two implementers of **social mobilisation** activities in Maseru, Leribe and Mafeteng, mostly around the textile factories. The Ministry of Gender, Youth, Recreation and Sports, the Federation of Women Lawyers and the Lesotho Red Cross carry out some ‘**environmental interventions**’ which involve issues around legislation and its implementation, and reducing property grabbing through training on will writing.

Concerning **male involvement**, 2 districts noted ‘male-focused discussions’ as a key strength and several districts considered it a key prevention activity.

Districts with especially high HIV prevalence (or number of PLHIV) did not have more prevention activities than other districts. In fact, Butha-Buthe – among the districts with lowest HIV prevalence – reported the highest number of distinct prevention activities. However, as previously noted this review cannot determine scale or impact of prevention interventions. The district informants stressed the lack of resources (funds, transport) for prevention activities and the need to decentralize resources and have timely availability of funds. Nine districts raised coordination as a key weakness together with weak collaboration and coordination among stakeholders, and poor information dissemination from central level. The availability of skilled and dedicated personnel, readiness to deliver services, political commitment, promotion of positive living, and training of traditional healers and herd boys were seen as strong points in the current prevention response by stakeholders.

FUNDING FOR HIV PREVENTION PROGRAMMES

The total expenditure on prevention for the financial year 2005/06 was M38.53 million which fell by 50% to M19.24 million in 2006/07. The estimated expenditure on prevention in 2007/08 is M 31.08 million, which is still substantially lower than in the first NASA year.

The NASA data suggest that in 2006/07, only **10% of total HIV/AIDS funding was spent on HIV prevention** (15% in 2005/06), while 33% of funding was spent on care and treatment, and 24% on programme management, followed by OVC support (13%), and social protection (11%) – putting prevention into fifth place.

BCC and SCC interventions received only 2% of prevention funding in 2006/07 (M 0.4 million). Expenditure was also lower in year 2 than year 1 for condoms, STI interventions (prevention, diagnosis & treatment), HCT and universal precautions, but higher in year 2 (relative to year 1) for PMTCT, social mobilisation, PEP and HIV-related research.

CHAPTER 5. LINKING THE RESPONSE TO THE EPIDEMIC

5.1. Are HIV prevention policies based on the latest available evidence and best practice?

The review looked at 12 key areas of prevention and analyzed whether existing policies address these areas, and what current evidence exists supporting interventions in these 12 key programme areas (table 15).

Table 15. Selected prevention areas, current evidence and inclusion in national policies in Lesotho, 2008

Intervention / programme area	Current evidence ⁷⁵		Lesotho's HIV prevention policies that address the intervention / programme area
	Impact at population level	Impact at individual level	
1. Abstinence	Temporary impact on young people through delayed debut. Most HIV infections occur in adults, when abstinence has less relevance. More rapid HIV acquisition in young adults observed ("catch up")	When observed, 100% effective	<ul style="list-style-type: none"> • Gender & Development Policy • Adolescent Sex & Reproductive Health Policy • Education Sector HIV & AIDS Policy • National Youth Policy
2. Be faithful / Partner reduction	Appears to have been key to reduced incidence and prevalence in Uganda, Kenya, Zimbabwe, urban areas of Ethiopia and Malawi	100% effective IF fully maintained by two HIV-negative people (or all parties in a polygamous union)	<ul style="list-style-type: none"> • National HIV and AIDS Policy • Churches' Sunday Pack
3. Condoms, male	Have contributed to HIV decline in some generalized epidemics, but no evidence of primary role (consistent use has not reached sufficient level, despite years of promotion)	80-90% protective if consistently & correctly used. Consistent use is exceedingly difficult to achieve in "steady" couples	<ul style="list-style-type: none"> • Adolescent SRH Policy • Education Sector HIV & AIDS Policy • National HIV and AIDS Policy • National Youth Policy • HTC Policy
4. Condoms, female	Contribute to number of protected sex acts where available, education on correct use necessary, unfamiliarity high compared to male condom, more expensive than male condoms	Highly protective against HIV, STIs and pregnancy	<ul style="list-style-type: none"> • Adolescent SRH Policy • National HIV & AIDS Policy • HTC Policy
5. STI treatment	Five of six trials showed no impact of STI treatment on HIV incidence (but only targeted bacterial STIs, and missed asymptomatic infections). Remains important for public health - but not proved effective for HIV prevention	STI treatment provides benefits to individuals and – especially for ulcerative STIs – reduces individual susceptibility to HIV if exposed. STIs indicate risky sexual behaviour.	<ul style="list-style-type: none"> • Adolescent SRH Policy • National HIV & AIDS Policy • National HTC Policy • STI Treatment guidelines
6. HSV-2	Recent evidence (two RCTs) to prevent HIV acquisition by treating HSV-2 discouraging.	Recent infection with HSV-2 doubles the risk of HIV transmission. Recent infection with HSV-2 is more risky than chronic infection.	NOT COVERED Potentially an important contribution to HIV prevention, relies on further research into HSV-2 suppression to assess HIV impact
7. Male circumcision (removal of foreskin)	Strong observational & biological data of protective impact at population level; three RCTs stopped early due to high efficacy of MC. Over time, may protect more women (indirectly) than any other intervention. Potentially an effect of "herd immunity" if enough men circumcised.	50-75% protective for men, possibly some direct protection for women; many other health benefits for males (reduces penile cancer, phimosis, some STIs,) & females (reduced risk of cervical cancer). One-time procedure that confers lifelong partial protection.	<ul style="list-style-type: none"> • Lesotho HIV and AIDS Bill – draft • MC strategy is currently being developed
8. Counseling & testing	Little population-level impact shown, although essential as an entry point to care and treatment, and for PMTCT	Some behaviour change shown in discordant couples and in HIV-positive clients	<ul style="list-style-type: none"> • National HIV & AIDS Policy • National HTC Policy • Education Sector policy on HIV and AIDS • Lesotho HIV and AIDS Bill • HTC guidelines

⁷⁵ Adapted from SADC (2006) and Potts *et al.* (2008).

Intervention / programme area	Current evidence ⁷⁵		Lesotho's HIV prevention policies that address the intervention / programme area
	Impact at population level	Impact at individual level	
9. Behaviour change interventions for young people	Strongest evidence for behavioural impacts of: Radio+other media, TV/radio+ other media; certain designs of curriculum-based sex & HIV education effective for youth in school when adult led. Combination of awareness, skills, supportive environment, & motivation are key to behavior change. Awareness alone is not enough.	Increased individual access to youth- (and gender-) friendly health services shown to be important for general SRH.	<ul style="list-style-type: none"> • National Youth Policy • National HIV and AIDS Policy • Education Sector policy on HIV and AIDS • National OVC Policy • Lesotho HIV and AIDS Bill • BCC strategy
10. Preventing Intergenerational sex	Rates of HIV in young women correlate with wider age disparity in relationships; data not available at population level on effectiveness of strategies	Young women more susceptible to infection, not empowered to insist on condom use or to protect self from sexual abuse	<ul style="list-style-type: none"> • National HIV and AIDS Policy • Gender and Development Policy (delaying sexual debut) • Adolescent SRH Policy (delaying sexual debut)
11. Preventing sexual violence	Likely contribution of sexual violence to HIV transmission, though population level impact not known	Forced sex likely to confer higher HIV risk due to tearing, etc; Violence often sparked by accusations of infidelity - partner reduction therefore an indirect prevention measure	<ul style="list-style-type: none"> • Sexual Offences Act • Gender & Development Policy • National HIV and AIDS Policy • Education Sector policy on HIV and AIDS • PEP guidelines • Guidelines for the Management of Survivors of Sexual Abuse for Lesotho
12. ARV chemoprophylaxis	No RCT undertaken of impact of ART on HIV transmission, but viral load is very low with ART and this correlates with low infectivity. One observational study found 50% reduction of HIV transmission in discordant couples on AZT alone	Risk if individuals stop ART of rapid viral load increase that could mean high infectivity	<ul style="list-style-type: none"> • no ARV chemoprophylaxis in Lesotho (need "proof of concept" and feasibility of intervention study [underway elsewhere] - challenges in using ART for HIV prevention are cost, need for HCT & health infrastructure; may increase behavioural risks; and, if adherence is suboptimal, could increase drug resistance and reduce impact on prevention as viral load rises

Based on the policy analysis, the review of prevention programmes, and the above table, it can be said that:

Lesotho's prevention strategies regarding promotion of counselling and testing, PMTCT, treatment of STIs and blood safety are covered by national policies and follow international best practice. Delivery of services under these initiatives may not be optimal, but in principle, these areas are being addressed according to the latest international standards. The following strategies and guidelines can be highlighted for being based on local evidence and international best practice:

- The *NSP 2006-2011* is based on a comprehensive data review and needs assessment regarding target populations in 2005;
- The *2007 PMTCT guidelines* are based on an assessment of PMTCT in 2006 and incorporate the multi-drug ARV prophylaxis regimen (AZT/sd-NVP/3TC);
- The *2004 ART guidelines* and the *2004 HCT guidelines* were formulated in accordance with WHO recommendations.

MC is not addressed by the existing policies and no MC strategy has been developed to date. However, the NSP was developed at a time when many reports had already described the strong inverse association between MC levels and HIV prevalence at population level, and the RSA MC trial results were known (Avert *et al.*, 2005, finding that MC provided 61% protection against acquiring HIV infection, equivalent to what a vaccine of high efficacy would achieve). The creation of the policy context for MC can benefit from the USAID costing study (2007), the MC situation analysis (MOHSW, 2008b) and the dialogues held with traditional circumcisers and professionals in the health sector.

Although the 2003 Gender and Development Policy proposes that the Government shall provide accessible, available and affordable SRH care, including family planning information and services (with particular attention to maternal and obstetric care and prevention of STIs and HIV in all health service areas), **there is more scope to promote family planning as an important component of preventing vertical transmission.** UNGASS 2001 set the goal to reduce the proportion of HIV-infected infants, and a major component was to prevent unintended pregnancies among HIV-infected women.⁷⁶ At a recent regional meeting, WHO stated that affordable, high-quality FP services remain one of the most important interventions to reduce maternal and infant morbidity and mortality.⁷⁷ The literature states that preventing unintended pregnancies among HIV-infected women could produce equivalent reductions in infant HIV incidence with the use of ARV prophylaxis during pregnancy (Sweat *et al.*, 2004; Duerr *et al.*, 2005) - a small reduction (<5%) in the number of unintended pregnancies in areas of high HIV prevalence may prevent similar, if not greater, numbers of pediatric infections than antenatal nevirapine prophylaxis. A study in Kenya by Balkus *et al.* (2007) confirmed that antenatal clinics are an ideal entry point for FP as a complementary measure to reduction of vertical transmission, because this is where a large proportion of women learn they are HIV positive. FP access and uptake should not only be improved among ANC clients, but among HIV negative and positive women and discordant couples in general.

The much needed National BCC Strategy was developed recently and there is great awareness that this strategy has to be carefully tailored to Lesotho's needs based on local data and international evidence of "what works". In finalising the BCC strategy, there is a strong evidence base to draw on, with the available CIET survey data and the forthcoming MCP study report. Analysis of best practice in the sub-region suggests that partner reduction must be at the heart of a successful BCC strategy.

Promoting abstinence to adolescents needs to take into account societal changes such as delay of marriage, as well as the "catch-up" phenomenon. Internationally, it has been observed that the best abstinence promotion programmes provide comprehensive and balanced IEC on SRH, STIs and HIV/AIDS and build relationship- and condom negotiation/use skills in young people, instead of narrowly focusing on sexual abstinence. Rapid HIV acquisition in young adults when they become sexually active ("catch up") needs to be addressed within abstinence campaigns. Of the 14 BCC implementers, only Catholic Relief Services reported abstinence as their only message, and this was targeted to 5-17 year olds. An additional 3 implementers promote abstinence-only for youth (Lesotho Red Cross, Lesotho Correctional Services and LIRAC), with messages around condom use and being faithful to one partner for adults. Even though the MOET's first choice is abstinence, the MOET HIV and AIDS policy also stipulates that learners will be given proper information about sex, the risks associated with sexual activity and how they can protect themselves - in the prevention review, MOET reported abstinence as the key message for 9-15 year olds.

5.2. Do HIV prevention policies and programmes respond to the key factors/drivers of the epidemic?

This analysis combines evidence from Lesotho and relevant regional evidence to define important risk factors and drivers of the hyperendemic situation in Lesotho, and discuss the appropriate policy and programmatic responses. The country has made dramatic progress in providing access to HIV services, for instance:

- At the end of 2007, 161 health centres offered HTC services, and the total number of people who had ever received an HIV test in Lesotho was 229,092 or 12% of the population;
- Several workplace programmes have been initiated;
- A cumulative total of 388,741 out of school young people had learned life-skills by June 2007
- All blood used for transfusion purposes is screened for HIV;

⁷⁶ WHO, Prevention of HIV in Infants and Young Children: Review of Evidence and WHO's Activities. 2002.

⁷⁷ World Health Organization. Hormonal Contraception and HIV: Science and Policy. Africa Regional Meeting, Nairobi, 2005

- There has been significant progress in rolling out ART and food support to people on treatment;
- There is no difference in school attendance between orphans and non-orphans aged 10-14.

Despite these advances, there are important shortfalls in the response to key factors and drivers of the epidemic:

1. Only about 15% of men are “fully circumcised” - the MC policy and programme response are under development - Circumcision is done in the initiation schools and at health facilities, but only the latter perform protective “full circumcision” (complete removal of foreskin). With the overwhelming evidence from more than 45 studies over 20 years showing that MC significantly reduces the risk of heterosexual infection, the scaling up of full circumcision must be at the heart of Lesotho’s HIV control efforts. The MC policy framework, strategy and implementation plan are currently being discussed, demand for MC at the Government and CHAL hospitals has increased, and there is scope to work in collaboration with the traditional circumcisers. The following citation emphasizes the need to see MC as part of a broader prevention programme:

“Male circumcision must be combined with behaviour change, especially promotion of partner reduction and consistent condom use. Over time MC, which has been called a ‘surgical vaccine’, would probably protect more women, albeit indirectly, than nearly any other achievable HIV prevention strategy” (Potts et al. 2008)

2. Growing evidence that MCPs are highly prevalent (sub-regional comparison), is an important risk factor for the epidemic, that is not explicitly addressed in communication programmes - Although the “be faithful” part of the ABC strategy has been integrated into several policies and strategies, the policy environment is not specific enough on MCPs. Policy, programmes and messages do not explicitly and adequately cover the specific risk of concurrent sexual partners. Messages lack focus regarding the risks linked to MCPs, extramarital affairs and transmission of STIs/HIV within sexual networks. Based on available data, there is a downward trend in MCP frequency, which needs to be accelerated and consolidated with a new generation becoming sexually active. Partner reduction appears to have been key to reduced HIV incidence and prevalence in several SSA countries, and Lesotho needs to follow suit and document “what works” in the local context.

“...we know too little about how to effectively promote partner reduction. But this is no excuse not to immediately increase our commitment to well-evaluated programmes aimed at reducing multiple and concurrent sexual partnerships. Lessons learned from the successes in reducing population-level HIV prevalence in countries such as Uganda may prove useful.” (Wilson and Halperin 2008)

3. Migration, intimate partner violence and income inequality are not addressed as major structural drivers of the HIV epidemic by Government policy and partners’ programmes - While interventions linked to the proximal factors of the epidemic (e.g. age at sexual debut, safer sex) are clearly within the mandate of NAC, MOHSW and their sectoral partners, the distal factors at the macro-level are outside the direct influence of the NAC and the MOHSW. In order to maximise the impact of the HIV/AIDS projects and programmes in the country, other Government ministries and development partners need to strategically address macro-level factors (like migration, inequality) and intermediate-level factors (like gender roles and discrimination, alcohol use) within the country’s AIDS control agenda. The Apparel Lesotho Alliance to Fight AIDS (ALAFA) is an example of a multisectoral partnership, intended to make the industry more robust and fight HIV/AIDS. ALAFA, an industry-wide programme, is driven by the Lesotho Textile Exporters' Association, with government, service providers, industrialists, labour, brands and retailers, funders, donors and multinational organizations working together.⁷⁸ Research commissioned by ALAFA confirms the strong link between migration and HIV status and an evidence-informed programme tailored to the situation of apparel workers should integrate their migrant situation into the communication activities.

⁷⁸ <http://www.alafa.info/Pages/Partners.asp>, accessed Sept 2, 2008.

4. Prevention activities are not well targeted to priority populations - Current policies do not provide evidence-informed guidance on priority populations for prevention. In turn, programmes are not targeting the sub-populations where most new infections happen. Lesotho has not defined its own most at risk populations (MARPs) i.e. populations in which there is a concentration of risk behaviours that promote efficient HIV transmission that may then drive the majority of new infections.⁷⁹ More often than MARPs, relevant documents deal with “vulnerable populations” (youth, OVCs, the bereaved & vulnerable elderly, PLHIV). The NASA was unable to identify prevention spending aimed at MARPs (NASA report p26).

Most importantly, almost no activities are targeted explicitly towards **adults, married couples and people in long-term steady relationships (especially those with MCP behaviours, or whose partners have an MCP)**, despite the growing understanding that risk behaviours such as unprotected extramarital affairs are highly prevalent in these groups. There is insufficient awareness among implementers that relatively older people are experiencing higher levels of new infections and need to be specifically targeted with preventive interventions.

- **HIV-discordant and concordant positive couples** are a critical target for prevention, given the epidemiological evidence. Programmes are not currently geared towards couples although in a third of all couples, at least one of the two partners is HIV positive.
- **“Migrating” couples** have not been a clear focus of prevention activities, despite the high level of mobility and migration affecting the stability of couples’ lives, and the regional, national and company-level epidemiological data unequivocally showing the increased HIV risk of migrating couples.
- **Age-disparate couples** – age-disparate relationships are common and contribute to very high HIV prevalence in females (2008 ALAFA study). This phenomenon is not properly addressed by policies and programmes going beyond behaviour change in order to impact social norms which are currently permissive towards such relationships.

There is insufficient **sex-specific targeting**, despite the epidemiological evidence. Implementers – possibly based on the notion that this is a generalized epidemic and everybody is at risk - target males and females equally, and mostly all ages combined. Programming which is both gender-sensitive and culturally informed should include prevention activities which specifically target men or women. The 2004 DHS and other sources show considerably higher HIV prevalence in females, and socio-cultural evidence suggests that verification of a man’s wealth, standing and manhood is closely tied to his ability to secure women. Within this context, the fact that interventions targeting men through male involvement dialogues in some districts are taking place is a welcome innovation. However, there is great need to explore further what these actually entail, and ensure that these are based on a model for behaviour change that is evidence informed.

In targeting **youth**, the evidence shows that uneducated, unskilled and out-of-school males should be a priority population for prevention. Several co-factors are clustered in these males, including early sexual debut, comparatively lower condom use, and low HCT service utilization.

Overall, **59% of all PLHIV live in the Western districts** of Berea, Leribe and Maseru, which suggests that these three districts (all with textile factories) require specific attention. The approximately **282,000 HIV-positive individuals in Lesotho**⁸⁰ must be prioritized as a target population, those knowing their status as well as those who have not yet accessed HCT. The pre-ART and ART enrolment process provides important opportunities to address prevention for HIV-positive individuals and couples.

While the **legal and policy framework** has been strengthened over the past few years, in practice, some laws relevant to HIV prevention, for instance on rights in marriage, estate management and sexual abuse,

⁷⁹ UNAIDS (2007e). Behaviours that put people at greater risk of HIV infection include unprotected sexual intercourse with multiple partners, unprotected anal sex, and injecting drugs with shared equipment and drug preparations (globally, MARPs are SWs, clients of SWs, IDUs and MSM, but also sexual partners of IDUs, female partners of MSM, and partners of SWs).

⁸⁰ Approx. 12,000 children 0-14 and 270,000 adults 15-49 (Spectrum, NAC 2008) = approx. 282,000 (excl. adults 50+ yrs)

are poorly applied and enforced. Sexual abuse is largely unreported due to lack of awareness and other reasons. There is scope to redress these shortfalls, through advocacy and sensitization programmes to build awareness and stronger demand for legislation and give “teeth” to legislation, as well as legal support programmes to ensure that vulnerable populations benefit from the rights enshrined in existing legislation.

5.3. Is funding for HIV prevention allocated to where it is most needed?

According to the NASA 2006/07, only 10% of funding was spent on HIV prevention (15% in 2005/06). In a hyperendemic situation with a large HIV reservoir and considerable high-risk behaviour, this seems too little (within this review, no formal costing or cost-effectiveness analysis of prevention interventions has been done). In 2006/07, 33% of funding was spent on care and treatment, and 24% on programme management.⁸¹ These are undeniably important - in future, care and treatment costs are likely to increase as more people receive ART. The relatively large expenditure on programme management is due to the smaller total HIV/AIDS budget in 2006/07 compared to 2005/06 (decrease of 68.4 million M or 27%).

With prevention only in fifth place of expenditure priorities, it seems important to invest more in efficient, evidence-based HIV prevention, and specifically address the key gaps identified. In a context of great need for care, treatment and OVC support but constrained resources, another option is to integrate (‘mainstream’) prevention activities into other intervention categories. For instance, it has been shown elsewhere that there is a great need to integrate OVC care and support programmes with effective prevention. Equally, it has been observed that many ART patients display considerable risk behaviours (study in Capetown by Eisele *et al.*, 2008) and that there is not enough emphasis on BCC activities in the ART and pre-ART cohorts. *The MoT study team concluded that Lesotho may not be investing sufficiently in prevention with only 15%-10% of funding used for preventive interventions in the two years of analysis, and prevention taking only fifth place in total HIV/AIDS expenditure.*

There are great fluctuations in annual spending per intervention category and ‘communication for social and behaviour change’ received a mere 2% of prevention funding in 2006/07:

- **BCC and SCC communication interventions** received far less funding in the second NASA year compared to the first, dropping from 6.7 million M to 0.4 million. The decrease may be partly due to the lack of a costed BCC strategy for resource mobilisation at the time.
- Related to BCC and SCC is **social & community mobilisation**, which received substantially more funding in the second NASA year, rising from 0.7 million M to 1.9 million M, mainly due to DfID funded activities for apparel workers within the ALAFA initiative.
- Annual spending also fluctuated for **distribution of free condoms**, falling from 2.9 million M to 0.6 million M. In contrast, expenditure increased for **condom social marketing** from 1.7 million M to 2.3 million M in the two years of assessment. Expenditure on the two categories combined decreased by 2.2 million M in year 2, which means that Lesotho spent substantially less on condom interventions in 2006/07 compared to the previous year. According to the UNGASS Report (p31) *“there were sporadic shortages of condoms in 2006 due to logistic problems. The information system on condom procurement and distribution need to be strengthened”*.
- Another expenditure decrease between year 1 and 2 occurred for **universal precautions** interventions (from 4.1 million M to 1.6 million M). Expenditure for **blood safety** was only reported for year 2 (0.2 million M). In order to maintain the low level of new infections arising through blood transfusions and medical injections, funding for these services needs to be based on careful costing of appropriate service provision.
- With the roll-out of **PMTCT** in 2007, expenditure increased from 2.8 million M to 5.5 million M.
- Expenditure on **PEP** also increased (from 0.14 million M to 0.73 million M).

With the much reduced funding available in the second year of assessment (2006/07), it appears that some essential interventions suffered severe budget cuts – most dramatically, the BCC/SCC interventions, but

⁸¹ Followed by OVC support (13%), social protection (11%) and prevention (10%, in fifth place).

also condom interventions and universal precautions. Because the total amount for prevention was precariously small (10% of an already diminished total annual budget), it is difficult to see in which prevention categories savings could have been made to boost the interventions whose budget were cut (the expenditure increases for PMCT scale-up, social mobilisation, condom social marketing and PEP were all justified and important in their own right).

HCT interventions have received considerable funding, but the behaviour change effects of “Knowing your status” are not documented - The main HCT initiative was the Universal HCT⁸² campaign launched in December 2005 (branded “Know your status”). The KYS campaign used an innovative approach including community HTC through mobile services, door-to-door HTC and provider initiated HTC, and thousands of Community Based Care Givers were trained under the KYS banner. Expenditure for *HCT interventions* decreased in year 2 (approx. 2.5 million M less in the second NASA year) due to the integration of the initiative into the routine HCT services including those supported by the PSI New Start initiative. According to current evidence (Table 15), the population impact of HCT might be low, and the 2007 ALAFA survey found that “*Knowing your status (whether positive or negative), did not have a preventative effect upon workers’ engagement in sexual risk behaviours, such as multiple partners, casual sex or transactional sex*” (ALAFA, 2008:20). The KYS intervention has been reviewed, but a comprehensive outcome evaluation to assess whether it achieved behaviour change in KYS users has not been carried out.

Expenditure on positive prevention was small, possibly due to a lack of a positive prevention concept - The NASA category “Prevention of HIV transmission aimed at persons living with HIV” was only reported on in 2006/07 and expenditure was minimal (79,000 M). Although PLHIV see the largest expenditure directed towards them as beneficiaries of care & treatment, the NASA reporting system detected very little expenditure for prevention activities targeted to them.

Positive prevention seems to lack a defined strategy and visibility. As more Basotho become aware of their HIV status and access HIV treatment, greater efforts are needed to adapt or create prevention programmes that meet the prevention needs of PLHIV.

Improved funding for HIV and AIDS related research will strengthen an evidence informed and effective response – between the first and second NASA year, expenditure for research⁸³ increased seven-fold to 0.2 million M in 2006/07. Although this amount is still small (0.1% of the total HIV/AIDS budget in 2006/07), it is commendable that more resources have been allocated particularly to social science research related to HIV/AIDS.

An adequately funded research strategy will complement the national M&E system which is being strengthened and decentralized in order to inform planning and resource allocation. This research needs to be demand driven and include a spectrum of research types, including action (intervention) research accompanying interventions in order to understand “what works” in Lesotho’s specific context. While population based surveys provide invaluable information on the general population, information also needs to be available on hidden populations like MSM and SWs and other selected populations like migrating couples.

⁸² Lesotho is the first African country to initiate Universal HCT, and the second country in the world, after Brazil, to do so.

⁸³ Social science research, research and capacity strengthening (excluding operations research)

CHAPTER 6. RECOMMENDATIONS

6.1. Policy-level recommendations

1. Strengthen commitment and capacity to implement existing policies by capacitating providers, and ensure quality services

2. Integrate “partner reduction”, with specific emphasis on the risks associated with concurrent relationships, as a key element of HIV prevention success in Lesotho into all future policies, strategies and guidelines that address HIV prevention. Ensure that the findings from the ongoing study on Gender and Multiple and Concurrent Sexual relationships (NAC/UNAIDS/FHI) are used as evidence in policy making.

3. Review the new BCC strategy to ensure that it: is grounded in evidence regarding priority populations (steady and married couples, youth and non-youth targets) and priority risk behaviours (unprotected extramarital sex, MCP behaviours); that it plans to harness the capacity of diverse community leaders and champions to drive local activities (as done in the “zero grazing” campaign in Uganda); and serves as a resource mobilization tool in order to have massively increased funding for BCC and SCC interventions.

4. Fast track the process of creating the policy context for a massive scale up of “full” male circumcision (including working with the traditional sector as appropriate)

6.2. Programmatic recommendations

The next NSP revision process should consider the different levels of the epidemic environment (macro level, intermediate level, micro/individual level) in proposing intervention strategies, and focus planned interventions on the main risk factors and drivers. These interventions must range from advocacy (for instance, to mobilize other sectors to address more distal factors) to service provision interventions (to address proximal factors). Particularly contextual, distal factors will require strategic or innovative partnerships to harness the capacity of other sectors and development partners.

IMPLEMENTATION OF PREVENTION PROGRAMMES

5. Ensure that behaviour and social change messages used in campaigns:

- use the new insights on sexuality, gender and MCPs gained from the qualitative research conducted by NAC, UNAIDS and FHI
- focus on partner reduction, mutual faithfulness and safer sex
- highlight that some common social norms put the nation at risk and therefore that some adaptation of sexual practices and society norms may be required
- emphasize the specific risks involved in age/wealth disparate relationships
- promote condom use in non-regular and transactional sex and for secondary prevention in discordant couples
- emphasize the specific risk involved with concurrent relationships
- are endorsed and supported by political and other leaders in society
- are developed with broad involvement of all constituencies including PLHIV
- concentrate on the benefits of behaviour change – e.g. partner reduction results: less STIs, less expensive, less jealousy and domestic violence, less stress due to deception, contribute to building trust and partner faithfulness and family stability

6. Position male circumcision as a priority - Scale up a comprehensive male circumcision programme (a once-off biomedical intervention accompanied by counselling and communication activities regarding male

circumcision) – which complements the behaviour and social change programmes promoting partner reduction, mutual faithfulness and safer sexual practices.

7. Link proven prevention strategies and continue to test innovative approaches in packaging, branding and marketing of prevention services packages. Build on the lessons learnt in the KYS campaign - for instance, a **“healthy couple”** service package which includes family planning, condom promotion, STI counselling, diagnosis and treatment, HTC, pre-ART for HIV-infected partners, relationship counselling, education on sexual risk and specific issues pertaining to migrant couples. Linking up of services must better harness the potential of reproductive counselling and family planning to prevent unintended pregnancies among HIV positive mothers, women of child-bearing age in contact with services, as well as concordant HIV positive and discordant couples.

8. Improve access to prevention interventions in the following high-risk locations:

- the three high prevalence districts (Berea, Leribe and Maseru), in which 59% of all PLHIV of Lesotho live
- high risk areas such as informal urban areas and, migrant labour settlements
- factories employing low-paid women
- in and around tertiary education institutions and University campuses
- peripheral rural populations and rural schools.

CAPACITY BUILDING FOR HIV PREVENTION PROGRAMMES

9. Train social change facilitators to work at community level with men, women, boys and girls, facilitating community-based processes which address:

- the dynamic nature of norms and culture
- social responsibility of everybody towards partners, family members, the community and nation
- the high level of violence and abuse
- sexual behaviours and transmission risks
- opportunities for social change in the era of HIV and AIDS

The specialised training for facilitators must cover topics such as community mobilisation techniques, participation in collective community projects, building social capital, social and sexual networks, sexuality as a socially negotiated phenomenon, the collective negotiation of social identities and their power for social change (*this intervention requires a research component in order to generate evidence on “what works”*).

10. Build capacity among implementers of behaviour change interventions on:

- behaviour change theories and the implications for planning activities
- the importance of tackling concomitantly individual, contextual (including cultural) and structural (services and environmental) factors in order to be effective
- the approach of cascade training programmes to ensure that the actual providers understand the rationale on which their activities are based
- the value of systematically applied, adequately rationalised behaviour change programmes, that take into account the complexity and challenges of sustainable behaviour change

RESEARCH, MONITORING & EVALUATION TO TRACK EPIDEMIC TRENDS AND THE QUALITY AND IMPACT OF HIV PREVENTION PROGRAMMES

11. Establish a harmonised planning, monitoring and evaluation system at district level for all actors, in order to ensure synergistic action and longer-term continuity of prevention interventions.

12. Coordinate and conduct research on ongoing “collective action” approaches like community and social mobilisation interventions for prevention, as well as research on ongoing peer education activities. This is in order to build a prevention/social change movement at community level and build evidence for ‘what works’ in this field.

13. Strengthen action research and evaluations (including process evaluations) alongside interventions in order to understand what works in Lesotho in HIV prevention.

14. Conduct research studies according to priority data needs in order to enable better planning, more effective programmes, and better evaluation. This study showed important data gaps regarding the general population as well as specific populations living in risk contexts (e.g. MSM, sex workers and their clients, IDUs, migrant workers). Bio-behavioural studies need to be conducted and repeated at important intervals. Size estimations on MARPs and HIV prevalence data are required to understand the different populations' contribution to incidence and prevalence. These bio-behavioural data of different risk populations will enable Lesotho to fully use the incidence model to estimate where new infections happen.

15. Conduct similar epidemic, response and policy synthesis prior to future NSP revisions which include:

- an assessment of incidence in adults, by modelling prevalence and sexual behaviour data (with increasingly better local data on high risk groups and sexual activity in the general population), strengthened by biological data on recent infections using the BED assay;
- an assessment of incidence in children 0-14 years (use of the BED assay may contribute to a better understanding of the source of HIV infections in children aged 5-14 years - new infections would be less likely to stem from MTCT and more likely to have arisen through child sexual abuse or infection through the modern or traditional health care systems); and
- data from priority ethnographic, sociological and biomedical research to fill identified data gaps regarding HIV and migration, female employment, social and sexual networks in urban and rural populations, sexual practices, MSM and IDU.

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Annex 1. Application of UNAIDS HIV incidence model

A. Introduction to the UNAIDS HIV incidence model

The HIV incidence model was developed in collaboration with the UNAIDS Reference Group on Estimates, Modelling and Projections by different individuals from Imperial College, UNAIDS, TFGI, East West Center and Family Health International (FHI) in 2002. The model calculates the expected short term incidence of HIV among the adult population by mode of transmission. The model was revised in 2005 by Peter White and Eleanor Gouws, and again by Gouws in 2007 to make the model more useable in countries with generalized epidemics. A second part was added to estimate the distribution of new infections among the general population who are most at risk through casual or low risk sex.

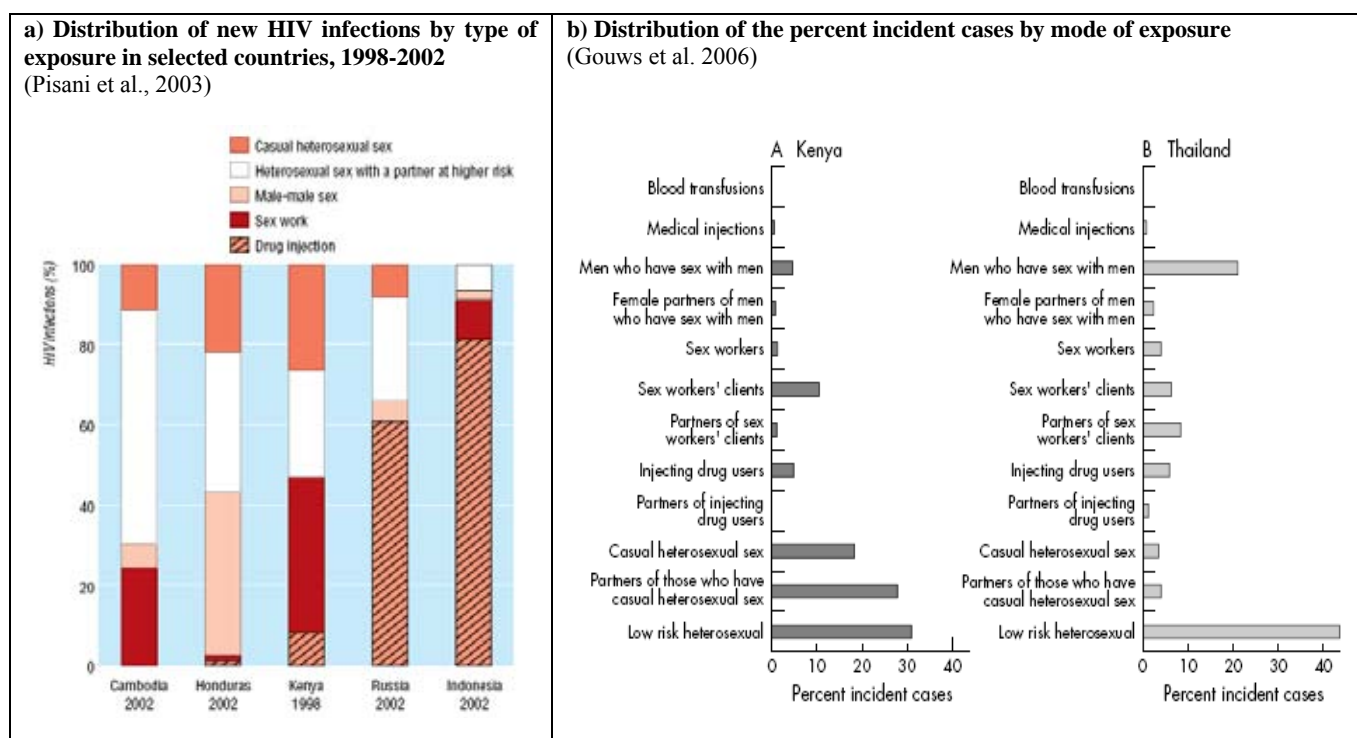
The aim behind the model is to allow the user to:

- calculate the number of new infections over the next year, and
- obtain a sense of the spread of the new infections in adults by age, sex and partnerships.

The model uses country specific behavioural and surveillance data to populate the model spreadsheet which includes the size of each risk group, the prevalence of HIV in the particular risk group, the prevalence of STIs, the average number of partners per year, the average number of exposure events per partner per year, and the percentage of those events that are protected. It provides a tool that can help inform the planning of effective, appropriately targeted, country specific intervention programmes.

The model was applied in 2003 to data from in six countries, namely Cambodia, Honduras, Kenya, Russia, Indonesia and Thailand, and results published by Pisani et al. in 2003 (figure 33a) and to data for Kenya and Thailand in 2006 by Gouws et al. (figure 33b).

Figure 33. Previous model applications in other countries



Source: Pisani et al., 2003; Gouws et al., 2006

The model is currently used as part of the UNAIDS/WHO set of methods and it has been included in regional training courses conducted by UNAIDS and WHO. It is being applied in several countries as part of “know your epidemic” analyses.

B. Incidence modeling in Lesotho

The Lesotho NAC conducted a National Modeling Workshop from 14-16 July 2008 in order to: i) Introduce the Lesotho Country Team to the UNAIDS HIV Incidence Model; ii) Review data sources and values to input into the model; and iii) Conclude data entry into the model to generate HIV incidence estimates for the country over the next 12 months. The following organizations were represented:

- **NAC:** NAC Director Policy and Strategy, Research Officer, M&E Officer, Research Assistants,

- **MOH:** Principal Statistician, Statistician/HMIS, M & E Officer
- **National University of Lesotho:** HIV Programme Manager
- **UNAIDS:** Partnership Adviser, country and regional consultants

Key notes from modeling:

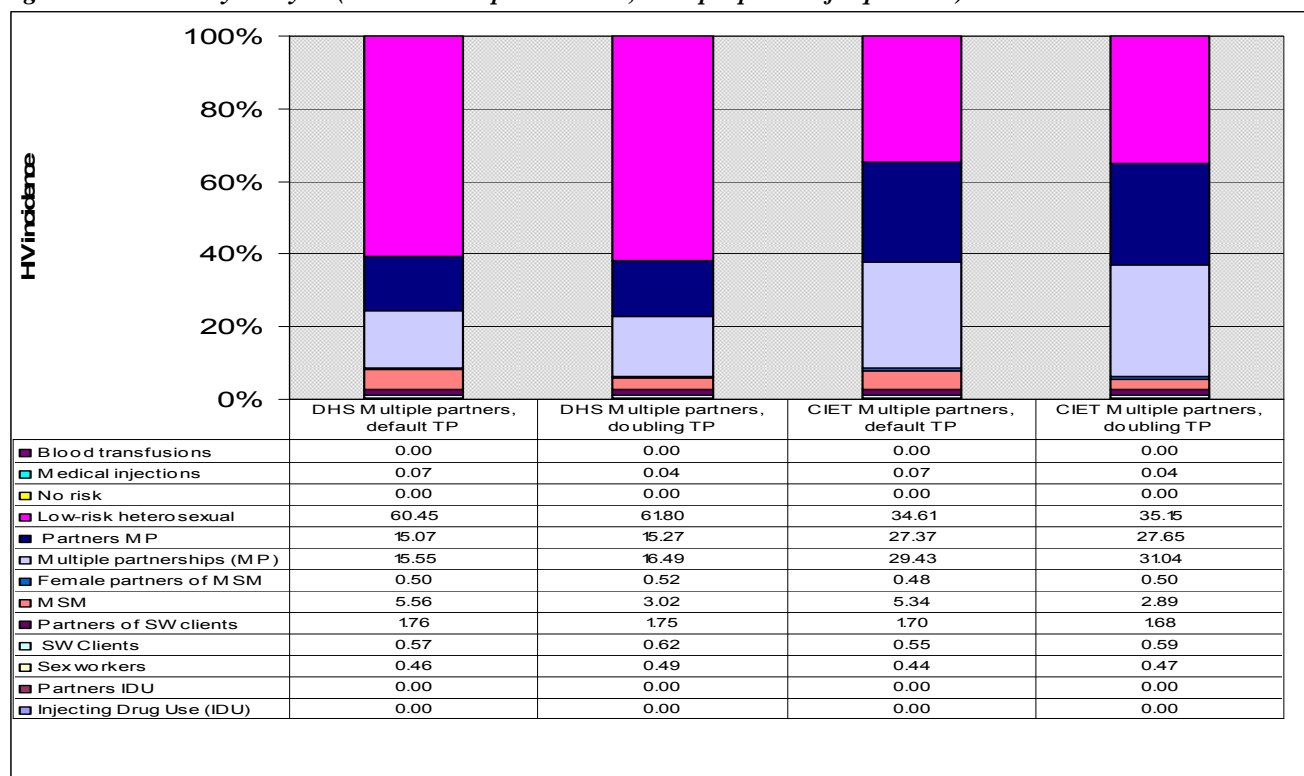
- Data values for all modeling variables were reviewed together with data sources. Assumptions and justifications for decisions on data to enter into the model were documented.
- Data were identified for all variables except IDU. The country team argued that although drug use appears to be on the increase it did not involve IDU and it would therefore be assumed that the IDU population was at 0%.
- Workshop participants looked at various regional estimates for the MSM population based on a systematic review of national estimates presented in Caceres *et al* (2006). The country team argued that although low, the estimate for MSM in Lesotho could not be placed at 0%. The model therefore assumes a 1% level of MSM in male population (lower than lowest available global estimate).
- Casual sex proportions were based on DHS and CIET data on 2+ partners during the last 12 months. The risk group was labeled **multiple partnership** group
- The low-risk group in the model comprises those individuals who reported **one partner only** during the last 12 months.
- Adult male circumcision is reported by government to be 47% however a 2007 study on MC found that only a third of all men had their circumcision performed through medical surgery. Applying this factor to the MC rate, the adult MC figure was adjusted downwards to 15.4%.
- Using default transmission probabilities lead to a large underestimation of annual incidence, as compared to the Spectrum incidence estimate. Based on a rapid literature review on transmission probabilities in Sub-Saharan Africa, it was decided that doubling transmission probabilities is a possible approach to obtain more realistic incidence estimates.

Final models:

Since data on frequencies of reported multiple partners varied significantly between the 2004 DHS and the 2007 CIET survey, both data sources were considered. Two different models were produced, and they are shown on the last two pages of this annex.

In order to look at the effect of varying the transmission probability and the frequency of multiple partners, a sensitivity analysis was carried out (figure 34). The patterns of risk groups' contributions to incidence changed little when varying transmission probabilities, however, the MSM contribution to incidence was reduced when transmission probabilities were doubled.

Figure 34. Sensitivity analysis (transmission probabilities, multiple partner frequencies)



Recommendations:

1. Several significant **data gaps** including data on IDU, MSM and sex work were found and need to be filled through better collection of information from service facilities with contact with IDU and FSW as well as through improved questions on IDU, MSM and sex work in national surveys.
2. There is a complete lack of local data on **coital frequency** in any of the risk groups.
3. Given the significance of **MSM** in contributing to new infections even at the very lowest estimates used in the model, programme communication must be strengthened to ensure awareness of risk for HIV transmission through unprotected sex among MSM in order to increase preventive behaviour.
4. Measurement of **casual sex** based on current DHS data should be strengthened through inclusion of additional questions (see suggestion number 7 below).
5. **Condom use** in general is very low (20%) and is highest in sex workers (59%), their clients (51%) and casual sex (48%). In the short term, increasing condom use particularly in casual sex relationships will have a significant impact on overall incidence. If increased condom use were to be combined with partner reduction and improved knowledge of HIV status through wider acceptance of testing between sexual partners, the number of new infections would be reduced significantly.
6. **Age specific and age-mixing analyses** in the model were hampered by lack of secondary analysis of available DHS data. It is important for further analysis of this data to be supported to produce additional age-disaggregated data showing behavioural information (number and age of partners, types of partners (high risk, marital, cohabiting)).
7. The **2009 DHS** provides an excellent opportunity to fill data gaps. Future **DHS analysis** needs to take into account the need of the model for certain data tables, which are not usually produced in standard DHS analysis.

Annex 2a. KYR synthesis: policy checklist

In countries with hyper-endemic and generalised HIV epidemics, the following policy actions have been recommended by UNAIDS. For the country, find out whether the country's HIV prevention response:

RECOMMENDED POLICY ACTION	IN PLACE ? (Y / N)	COMMENTS & OBSERVATIONS
1. Has a costed plan for effective HIV prevention, which provides a clear mandate for leadership, resource mobilization, coordination and reporting to the National AIDS Authority.	Yes	
2. Mobilizes and commits resources to HIV prevention sufficient to meet the needs of the essential HIV prevention plan; tracks and analyses expenditures to improve future planning cycles.	Partially	
3. Conducts a regular national review of every sector to evaluate whether current practices promote risk behaviour or hamper access to HIV prevention services.	No	
4. Builds public awareness and demand to amend legislation and policies that create barriers to HIV prevention, such as laws that discriminate against women and girls.	Yes	
5. Reviews, amends and enacts appropriate laws and policies and enforce anti-discrimination legislation.	Yes	
6. Promotes full enforcement of laws against child marriage, sexual abuse and gender-based violence.	Yes	
7. Advocates and promotes removal of user fees or taxes that reduce access and use of key commodities, such as HIV test kits, male and female condoms, treatments for sexually transmitted infections and antiretroviral drugs.	Partially	
8. Trains and supports leaders (e.g. political leaders and leaders from within networks of PLHIV, vulnerable communities, the private sector, FBOs and traditional healers) to speak out against HIV-related stigma and practices that promote HIV transmission.	Yes	
9. Promotes and energizes multisectoral linkages with government ministries that are or should be involved in the AIDS response (e.g. local development; social welfare; health; education; agriculture; youth & sports; women; human resources; uniformed services) and establish clear sectoral responsibilities for risk reduction, vulnerability reduction and impact reduction for each.	Yes	
10. Promotes male circumcision as an additional, important strategy for the prevention of heterosexually acquired HIV infection in men as part of a comprehensive HIV prevention package which includes: promoting delay in the onset of sexual relations, abstinence from penetrative sex, and reduction in the number of sexual partners; providing and promoting correct and consistent use of male and female condoms; providing HIV counselling and testing services; and treating STIs.	Partially	
11. Promote mainstreaming of HIV/AIDS in education and programmes	Yes	
12. Makes Policy provision on sexuality and health to facilitate systematic preventive education	Yes	

Source for first column: Adapted from UNAIDS, 2007. Practical Guidelines for Intensifying HIV Prevention: Towards Universal Access

Annex 2b. KYR synthesis: strategic information checklist

In countries with hyper-endemic and generalised HIV epidemics, the following strategic information actions have been recommended by UNAIDS. For the country, find out whether the country has/is:

RECOMMENDED STRATEGIC INFORMATION ACTION	IN PLACE IN THE COUNTRY? (Y / N)	COMMENTS AND OBSERVATIONS
1. Developed a national HIV M&E system that collects data on:		
1.1 <i>Sentinel HIV surveillance among pregnant women, urban and rural</i>	Yes	Sentinel surveillance is conducted after every two years
1.2 <i>Cross-sectional surveys of behaviour in sub-populations</i>	Yes	DHS 2004 Women and Girls
1.3 <i>Surveillance of sexually transmitted infections and other biological markers of risk</i>	Yes	Sentinel report surveillance 2007
1.4 <i>HIV case reporting</i>	Yes	Sentinel report surveillance 2007
1.5 <i>Tracking of HIV in donated blood</i>	Yes	LTBS Report 2007
1.6 <i>Cross-sectional surveys of attitudes and behaviour and HIV infection in the general population</i>	Yes	DHS 2004
1.7 <i>Cross-sectional surveys of attitudes behaviour among young people</i>	Yes	DHS 2004
1.8 <i>HIV surveillance in subpopulations</i>	Yes	Sentinel report 2007
1.9 <i>Behavioural surveillance in sub-populations with high-risk behaviour;</i>	Yes	The study that was conducted by Nick Waterman on Sex workers
1.10 <i>Data on morbidity and mortality</i>	Yes	DHS 2004
1.11 <i>Programme and financial monitoring data</i>	Yes	Routine Data Collection and NASA
2. Gathers and analyses strategic information to define most-at-risk populations and risk settings and on the HIV response, response capacity and resource needs in the public and private sector. Provide the data and analyses to the National AIDS Authority and other stakeholders on a regular basis.	Yes	Quarterly partnership forum at National Level and at the districts level the feedback is provided to stakeholders
3. Monitors HIV programme coverage, through a routine data reporting system, disaggregated by population subgroup, sex, age, marital status and geographic area; analyse information with stakeholders; identify implementation gaps; and coordinate partners and adjust programmes to meet demand and improve programme performance.	Yes	Routine data collected through our program reporting from disaggregated in sex only and District feedback are provided to implementing partners for improved implementation of their interventions
4. Conduct additional research on sexual networking patterns to better understand the potential HIV	Yes	Conducted HIV and AIDS related

RECOMMENDED STRATEGIC INFORMATION ACTION	IN PLACE IN THE COUNTRY? (Y / N)	COMMENTS AND OBSERVATIONS
transmission flow from most-at-risk populations to the general populations.		knowledge, Attitudes and practices for the MCP study
5. There are data quality assurance processes for all routine data that have been designed, documented and that are implemented (evidence of implementation would, for example, be completed data quality checklists or supervision reports)	Yes	Data was verified by the data officer in the district informally and supervision to the implementing partners is done regularly by the data officers
6. Conducts periodic, participatory national assessments of the HIV response and response capacity and resource needs in the public and private sector and from the central government to the community levels. Provide this information to the National AIDS Authority and other stakeholders using, high profile processes and events on a regular basis to motivate participation and coordination across the many partners	Yes	National assessment was conducted at central level, but it did not cover the community level.
7. Gathers and uses strategic information to understand the contexts and drivers of predominant risk behaviours and to guide investment and action towards achieving objectives such as human capacity development and system strengthening and universal support for human rights including gender equality.	Yes	
8. Gathers and analyses data from additional sources to estimate HIV incidence in key audiences, in order to refresh HIV prevention planning and keep it aligned with the epidemic	Yes	
9. Conducts additional behavioural and ethnographic studies (e.g. young people, girls, married men) to map and define sexual networks, communication networks and opportunities to promote social change.	Yes	The study was conducted by CIET on Knowledge, Attitudes and Practices towards HIV and AIDS
10. Develops universal access indicators	Yes	
11. Sets universal access targets for prevention	Yes	

Source for first column: Adapted from UNAIDS, 2007. Practical Guidelines for Intensifying HIV Prevention: Towards Universal Access

Annex 2c. KYR synthesis: implementers' interview guide

Interview number	
------------------	--

Date:		Institution:	
Respondents Name :		Contact Number (cell):	
Start time:		End time:	

GUIDE

1. Can you tell

me what prevention program(s) you are running and can describe it/them?

2. How do you deliver this program?

3. What are the key messages (slogan as different to key message) in this program?

4. Who is the target group of your program?

5. What is the target age of your intervention?

15-19 _____ 20-24 _____ 15-24 _____ 25+ _____ Specific _____

6. What is the target sex of your intervention?

F _____ M _____ Both _____

7. What is the geographical coverage of your intervention?

National Coverage Y N

If no, tick which districts.

Maseru		Butha-Buthe		Mokhotlong		Berea		Leribe	
Mohale's Hoek		Mafeteng		Qacha's Neck		Quthing		Thaba-Tseka	

% Rural		% Urban	
---------	--	---------	--

8. What year did this program start?

9. When will this program end?

10. What is the number per year reached by the intervention or % of target population reached?

11. What has the output achieved so far?

12. What is the outcome or impact so far (mainly programs running for more than 2 years)?

13. ONLY IF APPLICABLE: Why did you choose to do this particular type of intervention?

14. Who is the implementing agency/partner of this program?

15. How much funding has been available in total for this program?

16. Do you have anything to add?

17. Do you know anyone else who would be important to talk to in your field?

Annex 2d. KYR synthesis: template district reports

District participatory review meetings	
Modes of transmission presented:	Yes/No
If no, why?	
What do we know about the HIV epidemic in Lesotho presented:	Yes/No
If no, why?	
Key Prevention activities	
List all key activities and describe them	
Three strengths of HIV prevention in district	
1. 2. 3.	
Three weaknesses of HIV prevention in district	
1. 2. 3	
Recommendation on what needs to be strengthened in the district	
<ul style="list-style-type: none"> • • • • • • • • 	

Annex 3.
Summary table on multiple and concurrent sexual partnerships in Lesotho

Indicator	Sample	Frequency	Year of measurement	Source
More than one partner, last 12 months	Not known	39% (F) 55% (M)	1989-90	WHO, 1995
More than one partner, last 12 months	Adults who had sex in last 12 months, Females 15-49 yrs, males 15-59 yrs	11% (F) 29% (M)	2003	LDHS, 2004
More than one partner, last 12 months	Adults with at least one partner, 16-60 yrs	44% (all)	2002-03 baseline	CIET, 2008
More than one partner, last 12 months	Adults with at least one partner, 16-60 yrs	30% (all) ~21% (F) ~48% (M)	2007	CIET, 2008
More than one partner, last month	Adults with at least one partner, 16-60 yrs	17% (all) ~11% (F) ~27% (M)	2007	CIET, 2008
More than one partner, last 4 weeks	Females 12-49 yrs, males 12-54 yrs	5% (F) 20% (M)	2002	RHS, 2002
More than one current sexual partner	Adults with at least one partner, 16-60 yrs	24% (all) 16% (F) 36% (M)	2007	CIET, 2008
More than one current sexual partner	Apparel workers, 17-65 yrs, mean age 30 yrs	19% (all) 17% (F) 38% (M)	2007	ALAFa, 2008

Annex 4. Policy context of HIV prevention in Lesotho

This Annex provides an overview of the environment in which HIV prevention programmes are implemented, looking at three areas: policy context, legal environment, and protocols & guidelines. Analysis of all documents was based on the five key questions (see methodology).

Policy context

Table 16. Policy framework for HIV prevention in Lesotho (August 2008)

Policies relating to HIV prevention	Year
Education Sector HIV & AIDS Policy	2007
National HIV and AIDS Policy	2006
HIV Testing and Counselling Policy	2006
National Adolescent Health Policy	2006
National Blood Transfusion Policy	2006
National OVC Policy	2006
National Youth Policy	2006
Gender & Development Policy	2003

The development of the **Education sector policy on HIV and AIDS (2007)** stipulates that the education sector must provide an enabling and supportive environment in which a comprehensive response to HIV and AIDS can be implemented at every level. Education has a unique capacity to influence people's lives and attitudes. The goal of the education sector policy on HIV is for the education sector to prevent the further spread of the epidemic; promote access to treatment, care and support services; and reduce the impact of HIV and AIDS on education through the development, implementation, monitoring, evaluation and reporting of a comprehensive response at all levels of the education system.

The section referring to HIV prevention covers information and awareness, the curriculum, HTC, access to SRH services, safe education environment and partnerships to be established between the schools and the wider community. As far as messages for HIV prevention in the life skills curriculum the policy states that even though the Ministry's [MOET] first choice is abstinence, learners will be given proper information about sex, the risks associated with sexual activity and how they can protect themselves. As per the policy, learners and personnel should, where developmentally appropriate, have access to reproductive health devices and services (although condom dispensing and distribution is noted to be the responsibility of health centres); lastly, Youth Friendly Services (YFS) including health corners, peer counselling clubs and recreation facilities will be established to cater for all including learners with special needs. HIV and AIDS safe workplaces will be established at all levels of the education system, since all need to protect one another particularly children, including those with special educational needs and the challenged, from all forms of sexual abuse, including harassment and sexual molestation, sexual exploitation and rape. Not limited to the above, issues of cultural practices and social attitudes which increase the risk of HIV infection will be discouraged. The policy also addresses guidance and counselling and other HIV and AIDS life skills activities.

The **National HIV and AIDS Policy (2006)** which is an update of the 2000 National HIV and AIDS Policy was a culmination of a wide stakeholders buy-in from all sectors of the economy. The policy identified major factors as the drivers of the epidemic to be poverty and food insecurity; unemployment; alcohol and drug use; multiple concurrent sexual relationships; migrant labour; gender inequality and gender based violence; and, intergenerational sex. In terms of prevention, the policy states that the main objective is to facilitate the reduction of HIV transmission among all populations particularly the more vulnerable populations. Vulnerable populations are not specifically defined in the prevention section of the policy, however, under "impact mitigation", vulnerable groups are listed as women and girls, OVCs, children and young people, commercial sex workers, prisoners, people in homosexual relationships, people with disabilities, people who abuse alcohol and drugs, and finally couples about to get married. The key HIV prevention intervention activities covered in the policy include BCC, HTC, diagnostic counselling and routine testing, provider initiated HTC, beneficial disclosure of HIV status to sexual partner/s, condom use, PMTCT, management of STIs and PEP. The policy also covers blood and blood products safety, universal precautions, and injecting tools and skin-piercing instruments.

The **National HIV/AIDS Testing and Counselling Policy (2006)** was developed after a consultative process with various stakeholders in the country. The policy highlights issues of HIV testing; barriers to HIV testing; compulsory testing; HIV testing for PMTCT; HIV and AIDS counselling; issues on disclosure and protection of confidentiality; vulnerable groups; ensuring high quality of services; community based HTC services and issues of stigmatisation.

The Policy states that HIV testing shall be routine for pregnant mothers attending antenatal clinics. It also provides that HTC service providers shall be encouraged to take an active role in detecting and treating other STIs, and when possible, syphilis screening should be performed on the same blood sample, and those positive treated. Lastly, all HIV testing providers are encouraged to have close links with local TB offices, and all TB patients should be offered HIV testing and counselling.

The Policy further states that HIV testing shall be done with informed consent and the minimum age of consent for HIV testing shall be 12 years, with an exception where a written consent for a person donating blood, organ or tissue for transfusion, transplantation or research shall be deemed consent for HIV testing. Vulnerable and Special groups (women, children and young people) shall be supported to access HTC services without any form of discrimination. With regards to mandatory testing, the policy stipulates that HIV testing should not be made compulsory except “upon a court order when a person is charged with a crime such as rape or when the offender knows he is afflicted with HIV or other [STIs]”

The third objective of the **National Adolescent Health Policy (2006)** is to promote responsible behaviour among adolescents (10-19 year olds) regarding contraception, safe sex and prevention of STIs and HIV. Adolescents are as per the policy entitled to access youth friendly services in privacy with respect for confidentiality. The policy also holds that legislation to ensure this will be enacted. The background section to the policy indicates that girls who become pregnant are expelled from schools. *The MOHSW (1997) found that 17% of all deaths of females at child bearing age were due to abortion. However, abortion is illegal in Lesotho under common law.*

Through the MOHSW, the Lesotho Blood Transfusion Service (LBTS) developed a **National Blood Transfusion Policy (2006)**. Since centralization of collection of blood at the LBTS from the year 1987 all donated blood units are tested for HIV, HBsAg, and syphilis and the records are kept. LBTS primarily ensures that sufficient and safe supply of blood and blood products is maintained and MOHSW is responsible for the safety and adequacy of Blood Supplies and shall take every measure to secure Government commitment and support for the LBTS.

The Policy specifies that blood donations should rely on voluntary non-remunerated community-based blood donors; who are appropriately educated on safe blood donation, and are recruited and maintained as regular donors, and it shall be an offence for anyone to donate blood when he or she is fully aware that his/her blood is infectious. It further notes that pre- and post-donation counselling should be given, and those found to be positive for transfusion transmissible infections shall be advised accordingly, and referred for appropriate treatment and follow-up.

The MOHSW through the Social Welfare Department developed the **National Policy on OVC (2006)** with the primary objective to ensure that legal, policy and institutional frameworks for child protection are developed and strengthened at all levels. The policy bases itself on the principles of promotion and protection of the rights of the child and that all sectors and levels are involved. It says that positive action is to be taken to eliminate all forms of discrimination based on age, sex, colour, status, religion, language, political or social origin. Additionally, the OVC policy states, in terms of AIDS impact mitigation, that all pregnant mothers shall have access to PMTCT and other HIV/AIDS services to decrease HIV transmission to new born babies. Moreover, it states that the victim/survivors of sexual violence shall have immediate access to Post Exposure Prophylaxis (PEP).

In addressing issues faced by the youth, a **National Youth Policy (2007)** was adopted as a working policy with the specific idea of a collective strategy to address all the challenges and issues affecting the youth. The Policy specifies which youth groups qualify for which programmes/services, the aspirations to be met and problems to be dealt with and which approach is best suited to a given challenge. Many young people are increasingly being exposed to conditions that threaten their personal health and welfare, including exposure to drugs, STIs, HIV/AIDS.

The policy states that its aims will be achieved through particular strategies, including protecting the health and welfare of the youth and promoting their healthy lifestyle; sensitizing the youth on national problems such as HIV/AIDS and negative effects of population growth and also making sure that information on such problems is available and accessible to the youth, so as to promote behaviour change. Moreover the policy states that intensified efforts and methods must be adopted and used to combat drug and substance abuse and to encourage open communication channels between parents, schools, and the youth and by also strengthening and promoting family life education through youth organised and well established organizations. The policy also takes into consideration the fundamental human rights of the youth.

The **Gender and Development Policy (2003)** was developed to guide and address mainly the challenges of gender inequities and inequalities, poverty, and spread of HIV. The Policy was developed to facilitate proper integration of gender issues in development to ensure full involvement, participation and partnership of women and men, girls and boys in their productive and reproductive lives. The policy provides guidelines to policy makers and stakeholders on how to remove gender inequality and to ensure that gender concerns are taken into account in all national and sectoral development plans and programmes.

The Gender policy also incorporates health sector issues and states that women’s health is compromised by issues related to unhealthy reproductive practices and some cultural factors that marginalize them directly or indirectly. Other factors that contribute to low productive and reproductive health status of women include; socio-cultural barriers that place women as inferior; the minority legal [which has since the adoption of the policy been amended through the Legal Capacity of Married Persons Act (2006) see below] and socio economic status of women and therefore their inability to decide freely to seek, reach and receive appropriate quality and medical care. The minority status [sic], religion, customs and adverse economic conditions

negatively impact on the health status of most Basotho women. This status makes it difficult for women to negotiate safe or protected sex and in the process, women face increased chances of contracting STIs and HIV.

The policy proposes that the Government provide accessible, available and affordable SRH care, including FP information and services, with particular attention to maternal and obstetric care and prevention of STIs and HIV in all health service areas (districts). To achieve this, the GOL shall increase and strengthen gender-sensitive campaigns on health behaviour change, and IEC for the prevention and control of HIV/AIDS and will also advocate for laws and policies that are against all forms of sexual abuse and exploitation. Furthermore, the GoL shall increase and strengthen campaigns geared towards behaviour change as well as IEC programmes on STI/HIV/AIDS and other gender-based health issues at the same time advocating for recognition and action for reproductive health rights. Finally the GoL will develop a gender-sensitive health protection policy for prisoners in order to control the spread of STIs and HIV.

Legislative environment

Table 17. Policy framework for HIV prevention in Lesotho (August 2008)

Laws relating to HIV prevention	Year
<i>National HIV AIDS Bill (draft)</i>	2007
Legal Capacity of Married Persons Act	2006
<i>The Children's Protection and Welfare Bill</i>	2004
Labour code amendment (codes of good practice)	2003
Sexual Offences Act	2003
Marriage Act	1974

The **Lesotho HIV and AIDS Bill, (2008)** was developed to provide for the protection of persons living with and affected by HIV/AIDS, for prevention and control of HIV/AIDS, and for related matters. The Bill is therefore established to create a legislative framework for Lesotho's national response to HIV and AIDS in the context of the national constitution. More specifically the Bill when enacted will create a legal framework for intervention to prevent the further spread of HIV; to prohibit all forms of discrimination against PLHIV; it describes the obligations of the national, district and local governments to prevent and mitigate the impact of HIV/AIDS; and, finally it will bring Lesotho into compliance

with its international law obligation.

The MOHSW is responsible for the Health sector and the Bill states that the Ministry shall make available and accessible to all, and in all centres accredited under section 10 of the same Act, the following prevention services: HCT, HCT, SRH, and materials, goods, products and other services for prevention of HIV infections. In terms of education and information on HIV/AIDS, the Bill states that MOHSW and MOET shall ensure that every person has access to education and information on the prevention and treatment of HIV and AIDS. The National AIDS Commission will, in collaboration with the responsible public bodies, ensure that HIV and AIDS information on the cause, modes of transmission and consequences of HIV infection, as well as information on HIV related prevention, treatment, care and support services are adequately provided.

The **Legal Capacity of Married Persons Act (2006)** was developed "to provide for the removal of minority status of married women and to provide for incidental matters" (p462). Prior to its enactment, a married woman did not have legal capacity over herself and her body: among other things, a married woman could not open a bank account, enter into a contract, or undergo medical surgery without her husband's consent (Pholo & Zuberi 2007:14). The Act overrides the common law, and consequently a married woman in Lesotho is no longer considered a legal minor, but has control over major decisions including allocating property by will. The legal age for marriage in Lesotho is 21, and for all persons wishing to marry below this age the written consent of the legal guardians is required. However, boys under the age of 18 and girls under the age of 16 can be married provided that they have "written permission of the Minister" (section 27), as per the **Marriage Act (1974)**

The Children's Protection and Welfare Bill (2004) – draft describes the rights of the child and responsibilities of parents and the state/Government or directly responsible authority. The first one is the right to education and health which clearly states that a child has a right to access education, preventive health services, adequate diet, clothing, shelter, medical attention, social services or any other services required for the child's developed. In terms of protective measures relating to the health of children, it states that no child may be tested for HIV except when this is in the best interest of the child, and a child at the age of 12 and above may consent to an HIV test.

As relates to counselling before and after HIV testing, the policy indicates that a child may be tested for HIV only after proper counselling and that the child is of sufficient maturity to understand the benefits, risks and social implications of such a test. Additionally the bill states that access to reproductive health information and protective devices and technologies are key and that no person may refuse to sell any reproductive health protection/preventive devices or technology to a child. Secondly that reproductive health protective/preventive devices and technologies may be provided to a child on request by the child and without the consent of the parent or guardian of the child provided "that 1) the child is at least twelve years of age; 2) proper medical advice is given to the child; and 3) a medical examination is carried out on the child to determine whether there are any medical reasons why a specific contraception should not be provided to the child". Finally, a child who is a victim of a sexual

abuse and exploitation shall, as soon as possible, be provided with emergency contraception, antiretroviral care, services for termination of pregnancy and psycho-social services. In addition, under section 10, no child should be expelled or denied the right to education by any education institute on account of pregnancy, circumcision, initiation, or other cultural rituals.

The **Sexual Offences Act (2003)** introduced a series of sexual offences for which women and men can be convicted. For the first time ever in Lesotho, the Act recognises marital rape as a criminal offence given certain condition: (section 3) b: the accused spouse or partner had or was reasonably suspected to have a sexually transmissible disease or other life treating disease; c: violence or threats were used to engage in a sexual act. It has been noted that this provides for dealing with sexual and gender based violence (Pholo and Zuberi 2007:14). The Act also prohibits sexual abuse of children, molestation, and persistent child abuse. In the Act, “sexual act” includes anal sex, and thus non-consensual anal sex is considered a sexual offence. The Act also stipulates mandatory HIV testing for any person charged with rape within a week of the preferment of the charge. In addition, as per Lesotho’s common law, abortion is an offence punishable by imprisonment.

The **Labour Code (Amendment) Act, 2003**, is an Act intended to amend the labour code order of 1992 to make provision for HIV and AIDS in the workplace and to transfer review powers from the Labour Appeal Court for related matters. The code states that an employer shall, within three months of the coming into operation of this Act and in consultation with employees or their organisations, develop and implement a workplace policy on HIV and AIDS aimed at the following

- Prevention of new HIV infection;
- Protection of employees from discrimination and stigmatization related to HIV and AIDS;
- Provision of care and support for employees who are infected or affected by HIV and AIDS
- Management of the impact of the HIV and AIDS epidemic in the Organisation.

The Labour Code requires every employer, in consultation with employees or their organization to develop and implement a workplace policy on HIV and AIDS. Besides this legal requirement, there are many reasons why small and medium enterprises (SMEs) should develop and adopt an HIV and AIDS policy statement. The policy protects rights and specifies responsibilities related to HIV and AIDS, as well as endorsing equity, non-discrimination and fair labour practices. Moreover, the policy set standards of behaviour expected of employers and employees and provides a framework for monitoring the SME’s HIV and AIDS response. The labour code further provides for information and education to employees on HIV and AIDS, it prohibits pre-employment HIV testing, it covers areas of confidentiality and non disclosure and discrimination in employment. Moreover, it provides information on eligibility for employee benefits, termination of employment together with risk assessment and management; protects against victimization at work and information on care and support.

Guidelines and protocols

The MOHSW through the Family Health Division developed the **PMTCT Guidelines (2007)**, which note that PMTCT serves as an entry point for prevention of HIV infection and continuous follow-up and care of exposed infants, HIV infected women, children and their families. PMTCT is a very effective way to reduce the risk of infection in children and health care providers should ensure that each intervention known to minimize MTCT is offered to all HIV infected women as stated by the guidelines. Interventions include HTC of pregnant women; ART or AR prophylaxis; Safe obstetric practices; Safe infant feeding practices. Additionally, PMTCT involves a comprehensive approach to the prevention of HIV infection in infants and young children.

Table 18. HIV prevention guidelines and protocols in Lesotho (August 2008)

HIV prevention guidelines and protocols	Year
PMTCT Guidelines	2007
HIV and AIDS guide for small businesses in Lesotho	2007
HIV testing and counselling guidelines	2004
ART Guidelines	2004
Post-exposure prophylaxis (PEP) guidelines	2002
STI Treatment Guidelines	2005/2006

The PMTCT policy is in line with the recommended four prongs of preventing MTCT namely, 1) Primary prevention of HIV infections among women of child-bearing age; 2) Prevention of unintended pregnancies among HIV infected women; 3) Prevention of HIV transmission from infected mothers to their children 4) Provision of continuous care, treatment and support for infected mothers, their partners and children. As per the protocol, “*HIV infected women with CD4 cell count below 350 or in clinical stage 3 or 4*

should be initiated on HAART promptly and managed at MCH. The length of time that a woman receives HAART before delivery is directly related to the risk of HIV transmission to the infant; therefore HAART should be initiated as soon as possible in eligible women to minimize the risk of transmission to the infant” (p36). Finally, all health facilities in Lesotho both CHAL and GoL should provide safe and effective contraception for HIV positive women and promote contraceptive methods controlled by women. Moreover they should promote FP use among HIV positive women and encourage dual protection (condom use in

addition to the contraceptive of choice) and provide high quality reproductive health counselling to contribute to informed decision making about pregnancy choices.

The ministry of Trade and Industry has developed an **HIV and AIDS guide for small businesses in Lesotho (2007) or private sector** with a special focus on small and medium enterprises (SMEs). The guide is a step towards a more focused and deliberate targeting of SMEs that are facing the challenge of managing HIV and AIDS in their small workplaces.

The **National Antiretroviral Treatment Guidelines (2004)** were developed with particular focus on PMTCT. ART is the most important strategy to prevent MTCT and HIV-positive mothers should be given ART during pregnancy and childbirth, and newborns should be given 6 weeks of ART as prophylaxis (prevention). The guidelines recommend that ART should also be considered for HIV-positive mothers who are breast-feeding.⁸⁴ In addition to the use of antiretroviral drugs, the following obstetric practices that reduce the risk of mother to child transmission of HIV should be adopted: avoidance of early rupture of membranes; avoidance of routine episiotomies; avoidance of foetal scalp puncture and use of non-traumatizing suction cups on vacuum extractors where possible.

The government also adheres to the *international code* on Breast Milk Substitutes (BMS). As per the guidelines, all HIV positive pregnant women will be counselled on the risk and benefit of both breastfeeding and the use of breast milk substitutes, and supported in their choice. The guidelines discourage mixed feeding, and encourage exclusive breast feeding by all women whether positive or negative. The guideline also covers PEP for men and women who have been raped/sexually assaulted, and for health care workers who have a low but measurable risk of HIV infection after accidental exposure to infected blood or body fluid. It also stresses safer sex (sex with a condom) to reduce the risk of contracting HIV and other STIs.

The **Guidelines for the management of sexually transmitted infections**, adopted from the WHO guidelines in 2006 states a few key components of an essential package including promotion of safer sexual behaviour; condom programming; integration of STI prevention into primary health care, reproductive health care facilities, private clinics and others. The guidelines also cover issues around specific services for populations at risk-such as female and male sex workers, adolescents, long-distance truck drivers, military personnel and prisoners. Comprehensive case management of STI, prevention and care of congenital syphilis and neonatal conjunctivitis and early detection of symptomatic and asymptomatic infections are reflected in the guidelines. In terms of counselling, the guidelines indicate that consultation for an STI provides an opportunity for health workers to discuss and explore with the patient, on a one-to-one basis, his/her risk factors for HIV/STIs and others issues related to prevention and treatment.

⁸⁴ HIV-positive women who are pregnant and are already on ART are normally put on AZT which has the most well known safety profile in pregnancy and should usually form part of the pregnancy regimen. AZT should be used with d4T. Nevirapine and 3TC have also been widely used in pregnancy and are considered to be relatively safe in pregnancy. Nevirapine is also given to a baby at 48-72 hours after the baby has been born to reduce the risk of transmission. In utilisation of HAART, the most effective single method of reducing the risk of HIV transmission from mother to child is the treatment of expectant mother using a highly active antiretroviral regime.

Annex 5. KYS programme achievements by strategic objective

Main programme indicator (MPI)	Achievements
SO1: To create a policy environment that enables people in Lesotho to know their HIV status	
1: National HIV testing and counselling (HTC) policy developed and launched	<ul style="list-style-type: none"> • The HTC policy was developed through a participatory process and disseminated in 2006–07. • The highest level public support for the launch was given by the Prime Minister and HM the King.
SO2: To build widespread national support for, and community ownership of, the Know Your Status campaign	
2. #/% of villages making choice of community counselling options by consensus	<ul style="list-style-type: none"> • 1952 villages were oriented on the KYS campaign and involved in decision-making about how to deliver community-based services.
SO3: To build knowledge of, change attitudes and positively influence behaviour regarding HIV and AIDS, with a focus on HTC	
3. #/% of print/radio/TV articles on HIV and AIDS accurately reported	<ul style="list-style-type: none"> • Widespread feeling among key informants of decreased stigma and greater demand for testing resulting from the KYS communication strategy • The KYS brand is recognized by people of all age groups and is believed to be a driving force in creating a demand for HTC services. • 21 radio time slots across three stations and six TV time slots (total 3.5 hours of air time) on two stations were broadcast. • 75 minibuses were used for advertising KYS messages.
SO4: Expand the human resource capacity to conduct HTC and education at the national, district, health centre and village levels	
4. # of districts with training teams 5. # of CHW conducting HTC 6. #/% of villages with a trained team to conduct mobilization and ongoing counselling	<ul style="list-style-type: none"> • District-level KYS staff includes a KYS coordinator, logistics officer, trainers and health promotion focal persons in all 10 districts. • 3800 lay counsellors were trained in HTC and community-based care. • 1952 villages had teams trained to conduct mobilization and ongoing counselling.
SO5: Expand access to HTC especially at the community level	
7. # of people counselled and tested for HIV 8. # of people who attended education sessions	<ul style="list-style-type: none"> • >240 000 people above 12 years were tested in 2006–07. • ~ 27 000 children received HTC. • 30% of all tests were conducted in community-based settings. • Rate of HIV positivity among those tested was 31%. • >290 000 people provided pre-test counselling services.
SO6: Strengthen the logistics and supply management for HIV testing	
9. # of HIV test kits procured 10. #/% of villages with any stock-outs in each month	<ul style="list-style-type: none"> • Sufficient numbers of test kits were procured: 6484 kits (100 tests/kit) Determine test; 2120 kits (100 tests/kit) Double-check gold; and 88 kits (30 tests/kit) SD Bioline test • Supply chain management improved in 2007, and the general perception of key informants was that stock-outs of test kits were not common.

Main programme indicator (MPI)	Achievements
SO7: Strengthen post-test services for both HIV-positive and -negative people	
11. #/% of HIV-positive people referred to prevention, care and support services (community and health facility) – reported by district	<ul style="list-style-type: none"> • Community counsellor training was embedded in comprehensive community-based care modules. • Service ramp-up occurred after the launch of the KYS campaign. • 106 facilities offer antiretroviral therapy (ART) in the community. • 6112 women received ART for prevention of mother-to-child transmission (PMTCT) in 2006–’07. • 20 240 adults and 931 children received ART (2007).
SO8: Strengthen the systems for supervision of HTC services	
12. #/% of community HTC teams supervised monthly 13. #/% of health centres whose catchment area results meet set national quality standard	<ul style="list-style-type: none"> • Technical supervision is irregular, due to limited budget for travel. • Supportive supervision tools are being developed. • Assessments have not been done.
SO9: Strengthen monitoring and evaluation of HIV testing services at the local, district and national levels	
14. # of districts producing monthly reports 15. Reports on KYS implementation experiences by national team and District Health Management Teams (DHMT)	<ul style="list-style-type: none"> • All districts submit community-based and facility-based testing reports. • Revised standardized district-level report formats used since Aug 2007 • 2007 annual report on KYS disseminated • Quarterly stakeholder meeting instituted to monitor progress
SO10: Assure independent oversight of the KYS campaign to guarantee the rights of community members	
No MPI described in operational plan	
SO11: Mobilize necessary resources to fully implement the KYS campaign at national, district and community levels	
No MPI described in operational plan	<ul style="list-style-type: none"> • 25% of M75 million estimated need for direct support of the KYS campaign was contributed by donors and the GOL for HTC/KYS.

Source: Know Your Status campaign review report (13 March–4 April 2008)



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