

## **THE IMPACT OF HIV/AIDS AS A DISASTER ON THE POPULATION STRUCTURE OF LESOTHO**

JA Belle<sup>1</sup>, SB Ferriera<sup>2</sup>, A Jordaan<sup>1</sup>

<sup>1</sup>Disaster Risk Management Training and Education Centre for Africa and

<sup>2</sup>Department of Social Work, PO Box 339, University of the Free State, Bloemfontein  
9300, South Africa

Corresponding author:

Mr JA Belle

Disaster Risk Management Training and Education Centre for Africa,

PO Box 339, University of the Free State

Bloemfontein 9300

South Africa

Tel: +27 51 4012721

Fax: +27 51 401 9336

Email: [belleja@ufs.ac.za](mailto:belleja@ufs.ac.za)

## **ABSTRACT**

The aim of this research was to investigate health care workers' perception of HIV/AIDS in Lesotho, the impact of HIV/AIDS on the demographic profile of Lesotho and whether HIV/AIDS was managed as a disaster using certain disaster management principles. Primary data (questionnaires and an interview) and secondary data (national population censuses as well as data from surveys and reviews) were generated to describe the impact of HIV/AIDS on the population structure of Lesotho. Twenty-nine medical officers, 80 nurses and seven medical laboratory technicians completed the questionnaire. The modal age group of the respondents was 25 to 39 years and length of service fell within in the one to five years group. HIV/AIDS affected and changed the death rate and birth rate of Lesotho, which influenced the population structure of Lesotho. The age composition, the sex ratio and the dependency ratio was also changed because HIV/AIDS affected mostly the active age group, and women had a higher risk of infection. Although the HIV/AIDS pandemic was declared a disaster in Lesotho, the Lesotho Disaster Management Authority did not play the central co-ordinating role in the management thereof, but aided the Lesotho National AIDS Commission. There was evidence that HIV/AIDS caused the base of the population pyramid of Lesotho to shrink and the indentation in the active population. The special trend needs to be monitored continuously and corrections made accordingly in further researches so that the impact of HIV/AIDS is well documented.

Key words: disaster management, HIV/AIDS, Lesotho, population, vulnerable groups

## INTRODUCTION

Lesotho, is a small, independent and poor country in southern Africa, with a total surface area of 30355km<sup>2</sup> and an estimated population of 1,880 661 people (Bureau of Statistics 2007). About 59% of the total population of Lesotho lives below the poverty line and some 40% fall in the ultra-poor category (Food and Agricultural Organisation (FAO) 2008). The country has been ranked 149 out of 174 in the human development index (Government of Lesotho 2006; United Nations Development Programme 2006). The country is divided into ten administrative districts and is completely surrounded by the Republic of South Africa.

HIV/AIDS is a disease which affects almost all countries in the world, killing millions of people, especially in Africa. Sub Saharan Africa represents only about 11% of the world's 6.7 billion people (Population Reference Bureau 2008) but accounts for about 67% of all those living with HIV/AIDS (UNAIDS/WHO 2008). About 25.3 million Africans have died of AIDS including 2.3 million in 2004 alone while 55 million Africans are estimated to die of AIDS by 2020 (UNAIDS/WHO 2008).

Lesotho is the third highest HIV infected country in the world, with an adult prevalence rate of 23.2% (UNAIDS/WHO 2007). HIV/AIDS was declared a national disaster in Lesotho in 2000 by His Majesty King Letsie III (Government of Lesotho 2006). Despite this, it seemed HIV/AIDS was not managed like other natural and human-induced disasters in Lesotho. A comprehensive and coherent demographic impact of the epidemic was not well documented and there was still information gap in the country (Moeti 2007). Despite more than three decades of research on HIV/AIDS, the population pyramids of even the highly infected countries like Lesotho are still the same in many publications. HIV/AIDS could be approached in the context of disaster management involving a continuous, integrated, multi-disciplinary and multi-sectoral approach (Republic of South Africa 2008).

There has been no coherent and systematic study of the impact of HIV/AIDS on the population structure of Lesotho ever since the first HIV/AIDS (the hazard) case was reported in 1986 (United Nations Development Programme (UNDP) 2007). More than two decades was a good time frame to start realising considerable impacts of such a hazard at such a scale with such intensity, given that the average lifespan of an HIV infected person is taken to be ten years (UNAIDS/WHO 2008). The

progression of vulnerability; a popular theoretical framework in disaster risk management was examined using the Pressure and Release (PAR) Model to explain the weaknesses in the country that were exploited by the HIV/AIDS pandemic to create these impacts.

From a disaster management perspective, the new paradigm focuses on disaster preparedness, prevention and mitigation but not neglecting emergency response, rehabilitation and reconstruction of the disaster management continuum (United Nations International Strategy for Disaster Reduction (UNISDR) 2002). Disaster is a function of risk (UNISDR, 2002) and risk has three main components as seen in the risk equation below (Wisner, et al. 2004):

$$\text{Risk [R]} = (\text{Hazard [H]} \times \text{Vulnerability [V]}) / \text{Capacity [C]} \quad (\text{UNISDR 2002:41})$$

This research used the PAR model to examine the vulnerability side of the equation that will eventually explain the demographic impacts of HIV/AIDS on the population structure of Lesotho.

The aim of this research was to investigate health care workers' perception of HIV/AIDS in Lesotho, the impact of HIV/AIDS on the demographic profile of Lesotho and whether HIV/AIDS was managed as a disaster using certain disaster management principles.

## **MATERIALS AND METHODS**

An empirical investigation, based on the findings in the literature study, primary data (questionnaires and an interview) and secondary data (national population censuses as well as data from surveys and reviews) were generated to describe the impact of HIV/AIDS on the population structure of Lesotho. The mixed approach served as a form of triangulation (Rakotsoane and Rakotsoane 2006).

Primary data comprised 19 closed-ended questions that were sent to randomly selected medical personnel. Medical personnel were chosen because of their working knowledge of HIV/AIDS Lesotho. The questionnaire contained the following sections: demographics, perception of AIDS related mortality, fertility related questions, and questions on the impact of HIV/AIDS.

The Directors and the Public Relation and Communication Officers of the Lesotho Disaster Management Authority were interviewed 02 September 2009 about how HIV/AIDS was managed as a disaster in Lesotho. Qualitative methods were used to analyse the interview results.

Secondary data comprised four national population censuses (Bureau of Statistics 2001; Bureau of Statistics 2005; Bureau of Statistics 2007), which were cross-analysed with those collected during the Demographic and Health Surveys (DHS) by the Lesotho Ministry of Health and Social Welfare (MOHSW) in 2004 (Ministry of Health and Social Welfare 2008). Data from the Antenatal Clinic (ANC) HIV and Syphilis Surveillance for 2003, 2005 and 2007 (Ministry of Health and Social Welfare 2008) as well as the Annual Joint Review Report for 2008/2009 of the MOHSW were included (Ministry of Health and Social Welfare 2009). Any other data on HIV/AIDS from the Lesotho National AIDS Commission (NAC) (National AIDS Commission 2009), those published by the UNAIDS and other HIV/AIDS monitoring institutions in Lesotho and southern Africa was also used (United Nations Development Programme 2006; International AIDS Vaccine Initiative 2005; International Labour Organisation and United States Department of Labour 2005; Population Reference Bureau 2008; United States Agency for International Development 2000; World Health Organisation n.d.).

A pilot study to test the questionnaire was conducted in Maputsoe (Leribe district of Lesotho) and included a medical doctor and four nurses. The Lesotho Ministry of Health and Social Welfare (MOHSW) gave permission for the study. Participation was voluntary and the confidentiality of respondents was assured.

Data were analysed descriptively and presented in tables and graphs. A combination of univariate and bivariate analyses (Babbie, et al. 2008) were done by a statistician from the Lesotho Bureau of Statistics for demographic profile analyses.

## RESULTS

### *Primary data analyses*

#### *Demographics*

Twenty-nine medical officers, 80 nurses and seven medical laboratory technicians completed the questionnaire. The respondents were drawn from 20 health institutions distributed in seven of the ten districts in Lesotho. Medical personnel from 20 health institutions answered the questionnaire. The health institutions included Government of Lesotho (GOL), Christian Health Association of Lesotho (CHAL) and private health clinics. Seven out of ten districts were covered and most questionnaires were administered in Berea, Leribe and Maseru districts. These three districts have big towns (Mapusoe, Hlotse and Maseru) with high concentration of the Lesotho population. The respondents' demographic information is summarised in Table 1. Most respondents were female (73%) and included nurses (69%), doctors (25%) and medical laboratory assistants (6%). The modal age group of the respondents was 25 to 39 years (Table 1) while their modal length of service fell within the one to five years group.

#### *Perception of HIV/AIDS related mortality data, antenatal attendance and impact on Lesotho*

The respondents' perception of HIV/AIDS related mortality data are given in Table 2. More than a quarter (28.4%) of respondents perceived that deaths attributed to HIV/AIDS was very high, 54.3% perceived that the incidence of HIV/AIDS related deaths were rising and 61.2% ranked HIV/AIDS as the number one cause of death. The respondents' perception of antenatal attendance is given in Table 3. Respondents (68.1%) mostly perceived that live births had increased within the last five years and that the risk of HIV/AIDS was low (27.6%). HIV/AIDS was perceived as still being a serious problem in Lesotho by 27.9% of respondents (Table 4).

#### *HIV/AIDS management*

The following points were noted from the interviews with the Chief Executive Officer and the Public Relation and Education officer of the Lesotho Disaster Management Authority:

- HIV/AIDS was seen as a unique disaster in Lesotho, managed differently from other disasters.
- The Disaster Management Authority did not play a central coordinating role as it did with other natural and human induced disasters, but worked with partner organisations especially in the area of advocacy.
- The Disaster Management Authority focused mainly on Disaster Risk Reduction (DRR).
- The Disaster Management Authority was also a strong adherent to the Prime Minister's doctrine of "ABC or D" which meant: Abstinence from sex, Being faithful to sexual partner(s), Condom use, or Death.
- Though no national workplace policy existed in Lesotho for people living with HIV/AIDS, the Disaster Management Authority vehemently condemned any form of discrimination against people living with HIV/AIDS and had put in place support systems for workers implicated in HIV/AIDS.

### ***Secondary data analyses***

The total population of Lesotho increased at a decreasing rate after HIV/AIDS was reported in the 1980s (Table 5) and the crude birth rate fell constantly in 30 years. Although thousands of children were born HIV positive, the percentage of HIV positive births fell constantly from 2002 to 2010 (Table 6). Lesotho lost 185,453 people to HIV/AIDS within seven years giving an average death toll of 26,493 people per year. Initially in 2002 more males died from HIV/AIDS than women but in 2010 more women died (Table 6).

Between 1976 and 2006, Lesotho conducted four national population censuses and data from these censuses were used to construct the four population pyramids shown in Figure 1. The base of the population pyramid of Lesotho is shrinking and there is also clear indication of an indentation in the active population.

### **DISCUSSION**

The age of respondents and their relatively short service records indicate relatively young and inexperienced health personnel in Lesotho. The respondents' perception of HIV/AIDS related mortality data was, however, in line with findings of other studies. Most respondents ranked HIV/AIDS as number one cause of death, which

agrees with the studies of (Ministry of Health and Social Welfare 2008).

Respondents indicated that more women than men were affected by HIV/AIDS.

Initially more males than females died from HIV/AIDS related deaths, but the newer trends indicate that more females are affected (Ministry of Health and Social Welfare 2009).

Most respondents indicated that less than 100 women attended antenatal clinics per month, but more than 75% of the women were tested for HIV. Knowledge of HIV status could possibly have contributed to the prevention of mother-to-child transmission. The prevention of mother-to-child transmission facilities increased in Lesotho from 35 in 2007 to 180 sites by March 2009 (Ministry of Health and Social Welfare 2009), which is a positive trend. Although thousands of children were born HIV positive, the percentage of HIV positive births fell constantly from 2002 to 2010. This also indicated the positive effect of more HIV/AIDS health sites in Lesotho.

The Lesotho Disaster Management Authority did not play the central co-ordinating role in the management of HIV/AIDS as a disaster in Lesotho. This central coordinating function is performed by the Lesotho National AIDS Commission. By declaring HIV/AIDS a disaster in 2000, logically the Disaster Management Authority should play the coordinating role according to the disaster management act number 26 of 1997, which has not been amended. The Disaster Management Authority, however, focussed on DDR. The DRR is the systematic development and application of policies, strategies and practices to minimize vulnerability and disaster risk in a society, to avoid or limit the adverse impact of hazards (United Nations International Strategy for Disaster Reduction 2002). The Prime Minister of Lesotho is also the champion of "Know Your Status" campaign in Lesotho; a campaign that was launched in 2006 and was used since then as one of the best practice response tool to reduce the spread of HIV/AIDS in Lesotho (Whiteside 2008). The new paradigm of DRR is still not well understood by many people. The paucity of evidence on the benefits of DRR is a stumbling block in attracting the interest and commitment of policy-makers (Benson, Twigg and Tiziana 2007). This lack of evidence mentioned above partly explains the reasons for the lack of support and cooperation from many decision makers on DRR programmes. This is a challenge facing stakeholders in disaster management in many countries in Africa, including Lesotho.

The slowed increase of the total population of Lesotho was recorded after HIV/AIDS was reported in the 1980s. The highest net migration, as reported by the UN Secretariat (2009), coincided with the advent of HIV/AIDS in the 1980s. Most migrant mine workers were one of the main vectors for the spread of HIV/AIDS in Lesotho (Barnett and Whiteside 2006) (Kimaryo, et al. 2004; Food and Agricultural Organisation (FAO) 2008). A large number of these migrants and their infected spouses had subsequently died, thus halting and later reversing the downward trend in the crude death rate that jumped from 12 per thousand in 1996 to 18 per thousand in 2006 (Bureau of Statistics 2005; Population Reference Bureau 2008). There was neither war nor any hazardous event in Lesotho during this period that could result in such a loss in human life at such a scale, except HIV/AIDS.

Attention was focused on the 1986, 1996 and 2006 population pyramids because the first case of HIV/AIDS was discovered in Lesotho in 1986 (Government of Lesotho 2006) (United Nations Development Programme (UNDP) 2007; Moeti 2007). The pyramids were continuously reducing. Though there was a natural tendency in the fall in fertility rates, HIV/AIDS affected fertility in Lesotho and also HIV/AIDS accelerated infant mortality, thereby causing the noticeable shrinking in the base of the pyramids. Besides, the number and percentage of the active population was also reducing as noticed in the indentation of the 1996 and 2006 population pyramids. By 2006, most adults who were infected by 1995, the year, which marked the peak of HIV/AIDS prevalence rate in Lesotho (Lesotho UNGASS Country Report 2008), and the subsequent increase in deaths caused the indentation observed especially in the 2006 population pyramid. The top of the population pyramids narrowed as the general life expectancy continued to fall. This trend which indicated increase in AIDS related deaths is probably so because as the epidemic is maturing (with a levelling in the prevalence rate at 23.2% since 2005) most of the people who were infected before 2005 are now dying. These changes necessitate the redrawing of the population pyramids of countries that are highly affected by HIV/AIDS in order to take into account the impact of HIV/AIDS on the population structure. Most publications on the population structure of developing countries that were made based on population projections in the 1980s and early 1990s need to be updated to accommodate the impact of HIV/AIDS for countries like Lesotho. In the demographic

study of the population structure of developing countries, a special trend has thus emerged for countries like Lesotho which are heavily affected by HIV/AIDS.

## **CONCLUSION**

HIV/AIDS affected and changed the death rate and birth rate of Lesotho, which influenced not only the total population but also the population structure of Lesotho. The age composition, the sex ratio and the dependency ratio was also changed in Lesotho because HIV/AIDS affected mostly the active age group, and women had a higher risk of infection.

Although the HIV/AIDS pandemic was declared a disaster in Lesotho, the Lesotho Disaster Management Authority did not play the central co-ordinating role in the management thereof, but aided the Lesotho National AIDS Commission.

There is further evidence that HIV/AIDS caused the base of the population pyramid of Lesotho to shrink and an indentation in the active population. The special trend mentioned above needs to be monitored continuously and corrections made accordingly in further researches so that the impact of HIV/AIDS is well documented.

## REFERENCES

- Babbie, E, J Mouton, P Vorster, and B Prozesky. *The Practice of Social Research*. Cape Town: Oxford University Press, 2008.
- Barnett, T, and A Whiteside. *AIDS in the Twenty-first Century: Disease and Globalization*. 2nd Edition. London: Palgrave, 2006.
- Benson, C, J Twigg, and R Tiziana. *Tools for Mainstreaming Disaster Risk Reduction: Guidance Notes for Development Organisations*. Switzerland: Prevention Consortium, 2007.
- Bureau of Statistics. *2001 Lesotho Demographic Survey: Analytical Report, Volume 1*. Maseru: Bureau of Statistics, 2001.
- Bureau of Statistics. *2006 Lesotho Census of Population and Housing: Preliminary Results Report*. Maseru: Bureau of Statistics, 2007.
- Bureau of Statistics. *Lesotho Demographic and Health Survey 2004*. Maseru: Bureau of Statistics, 2005.
- Food and Agricultural Organisation (FAO). "Lesotho Country Report." 2008. [www.fao.org/emergencies/country-information/list/Africa/Lesotho/en/](http://www.fao.org/emergencies/country-information/list/Africa/Lesotho/en/) (accessed July 28, 2009).
- Government of Lesotho. *National HIV and AIDS Policy*. Maseru: National AIDS Commission, 2006.
- International AIDS Vaccine Initiative. *Putting it Together: AIDS and the Millennium Development Goals*. New York: International AIDS Vaccine Initiative, 2005.
- International Labour Organisation and United States Department of Labour. *HIV/AIDS Workplace Education Programme in Lesotho: The Baseline Survey*. Maseru: International Labour Organisation and United States Department of Labour, 2005.
- Kimaryo, S, S, J, O Okpaku, A Githuku-Shongwe, and J (Eds) Feeney. *Turning Crisis into an Opportunity: Strategies for Scaling up the National Response to the HIV/AIDS Pandemic in Lesotho*. New York: Third Press, 2004.
- Lesotho UNGASS Country Report. "Status of the National Response to the 2001 Declaration of Commitment on HIV/AIDS." 2008. [http://data.unaids.org/pub/GlobalReport/2008/JC1511\\_Gr08.Executivesummary\\_en.pdf](http://data.unaids.org/pub/GlobalReport/2008/JC1511_Gr08.Executivesummary_en.pdf) (accessed April 14, 2009).
- Ministry of Health and Social Welfare. *Annual Joint Review Report 2008/2009*. Maseru: Health Planning and Statistics Department, 2009.

Ministry of Health and Social Welfare. *Draft Report on the Sentinel HIV/Syphilis Survey 2007*. Maseru: Health and Planning Statistics Report, 2008.

Ministry of Health and Social Welfare. *Draft Report on the Sentinel HIV/Syphilis Survey 2007*. Maseru: Ministry of Health and Social Welfare, 2008.

Moeti, DL. *A Review and Assessment of HIV/AIDS Research and Interventions in Lesotho*. Rome: NUL, 2007.

National AIDS Commission. "Statistics on HIV/AIDS." 2009. [www.nac.org.ls](http://www.nac.org.ls) (accessed November 11, 2009).

Population Reference Bureau. "World Population Data Sheet." 2008. [www.prb.org](http://www.prb.org) (accessed March 30, 2009).

Rakotsoane, FCL, and MA Rakotsoane. *The ABC of Research Project Dissertation and Thesis Proposal Writing*. Rome: Choice Publishing Company, 2006.

Republic of South Africa. *Disaster Management Act 57 of 2002*. Pretoria: Government Gazette, 2008.

UNAIDS/WHO. "Lesotho Epidemiological fact sheet on HIV and AIDS 2008 update: Core data on the peidemiology and response." *Joint United Nations Programme on HIV/AIDS and World Health Organisation*. 2008.  
[www.apps.who.int/globalatlas/predefinedReports/EFS2008/full/EFS2008\\_Ls.pdf](http://www.apps.who.int/globalatlas/predefinedReports/EFS2008/full/EFS2008_Ls.pdf)  
(accessed November 11, 2009).

UNAIDS/WHO. *United Nations Programme on HIV/AIDS and World Health Organisation. AIDS Epidemic Update*. Switzerland: UNAIDS, 2007.

United Nations Development Programme (UNDP). *Lesotho Nation Numan Development Report 2006*. Maseru: UNDP, 2007.

United Nations Development Programme. "Report on Human Development." 2006. <http://hdr.undp.org/stats/data> (accessed March 7, 2008).

United Nations Interantional Strategy for Disaster Reduction (UNISDR). *Living With Risk: A Global Review of Disaster Reduction Initiatives*. Geneva: United Nations, 2002.

United States Agency for International Development. "The AIDS Pandemic in the 21st Century: The Demographic Impact in Developing Countries." 2000. [www.usaid.gov/press/release/2000/censusfinal.doc](http://www.usaid.gov/press/release/2000/censusfinal.doc) (accessed March 13, 2009).

Whiteside, A. *HIV/AIDS: A Very Short Introduction*. New York: Oxford University Press Inc, 2008.

Wisner, B, P Blaikie, T Cannon, and I Davis. *At Risk: Natural Hazards, People's Vulnerability and Disasters*. 2nd Edition. London: Routledge Taylor and Francis, 2004.

World Health Organisation. "HIV/AIDS Epidemiological Surveillance Report for the WHO African Region 2007 Update." 2008. [www.afro.who.int/aids/who/aids](http://www.afro.who.int/aids/who/aids) (accessed July 18, 2009).

Table 1 Demographic summary of respondents (n=116)

<b>Parameter</b>	<b>Frequency</b>	<b>Percentage (%)</b>
<b>Profession</b>		
Doctors	29	25
Nurses	80	69
Other	7	6
<b>Gender</b>		
Male	43	37.1
Female	73	62.9
<b>Age (years)</b>		
18 to 24	8	6.9
25 to 39	67	57.8
40 to 49	29	25.0
50 to 59	10	8.6
60+	2	1.7
<b>Length of service (years)</b>		
<1	10	8.6
1 to 5	55	47.4
6 to 10	19	16.4
11 to 15	15	12.9
16 to 20	5	4.3
21+	12	10.3
<b>Respondents per district</b>		
Maseru	24	20.7
Buthe-Buthe	9	7.8
Leribe	25	21.6
Berea	28	24.1
Mafeteng	12	10.3
Mohale's Hoek	8	6.9
Thaba Tseka	10	8.6

Table 2 Respondents' perception of HIV/AIDS mortality related data in hospitals/clinics (n=116)

Parameter	Frequency	Percentage
<b>Age groups with highest mortality rate:</b>		
0-19 years	7	6
20-49 years	97	84
50-69 years	12	10
70+ years	0	0
<b>Death attributed to HIV/AIDS</b>		
Very low	10	8.6
Low	14	12.1
Moderate	28	24.1
High	28	24.1
Very high	33	28.4
Cannot tell	3	2.6
<b>Gender most affected</b>		
Male	14	12
Female	74	64
Fairly balanced	28	24
<b>Incidence of HIV/AIDS related deaths</b>		
Rising	63	54.3
Falling	31	26.7
Constant	14	12.1
Do not know	8	6.9
<b>Rank of HIV/AIDS as cause of death</b>		
Number 1	71	61.2
Number 2	19	16.4
Number 3	13	11.2
Number 4	6	5.2
Not among top 4	7	6.0

Table 3 Respondents' perception of antenatal attendance (n=116)

Parameter	Frequency	Percentage
<b>Monthly antenatal attendance</b>		
Less than 100	53	45.7
101 to 200	30	25.9
201 to 300	15	12.9
301 to 400	10	8.6
401 to 500	6	5.2
More than 500	2	1.7
<b>Tested for HIV</b>		
Less than 25%	13	11.2
25-50%	20	17.2
50-75%	10	8.6
More than 75%	73	62.9
<b>Live births per month</b>		
100 and less	66	56.9
101-200	21	18.1
201-300	12	10.3
301-400	10	8.6
401-500	5	4.3
501+	2	1.7
<b>Five year trend live births</b>		
Increasing	79	68.1
Falling	10	8.6
Constant	16	13.8
Do not know	11	9.5
<b>Risk of HIV/AIDS</b>		
Very low	28	24.1
Low	32	27.6
Moderate	30	25.9
High	13	11.2
Very high	5	4.3
Cannot tell	8	6.9

Table 4 Respondents' perception on the impact of HIV/AIDS in Lesotho

<b>Perception</b>	<b>Frequency*</b>	<b>Percentage</b>
Sex ratio has changed in Lesotho	12	3.4
Total population has reduced	48	13.5
HIV/AIDS is the main cause of population reduction	58	16.3
HIV/AIDS still a serious problem in Lesotho	99	27.9
HIV/AIDS affects more poor people than rich people	50	14.1
The number of HIV/AIDS orphans still on the increase	88	24.8

\*Respondents could choose more than one parameter.

Table 5 Summary of the demographic dynamic indicators in Lesotho

<b>Indicators/year</b>	<b>1976</b>	<b>1986</b>	<b>1996</b>	<b>2006</b>
Total population	1 216 815	1 595 096	1 862 275	1 880 661
Crude birth rate (per thousand)	42	38	34	31
Crude death rate (per thousand)	15	12	12	18
Net migration (per thousand)	-20	-73	-36	-36
Intercensal growth rate (%)	2.27	2.6	1.5	0.1
Sex ratio	93.3	95.6	95.6	95.0
Total fertility rate	5.4	5.3	4.1	3.5
Life expectancy:				
Male (years)	49	54	59	49
Female (years)	53	57	60	57

Source: BOS, 1976, 1986, 1996, 2006; DHS 2004; United Nations Secretariat, 2007

Table 6 Estimated annual HIV positive births and cumulative HIV/AIDS deaths (2002 – 2010) in Lesotho

	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>HIV positive births</b>									
Total	2 765	2 690	2 631	2 507	2 134	1 682	1 281	1 056	859
Percentage	4.49	4.41	4.35	4.18	3.59	2.86	2.19	1.81	1.47
<b>Cumulative HIV/AIDS deaths</b>									
Male	32 139	40 902	50 397	60 059	68 464	77 161	84 816	92 116	98 996
Female	28 721	37 372	47 055	57 223	66 330	76 032	84 791	93 337	101 550
Total	60 680	78 280	97 452	117 282	134 794	153 194	169 607	185 453	200 545

Source: MOHSW 2008:67

Figure 1 Population pyramid of Lesotho in 1976, 1986, 1996 and 2006

