HIV and AIDS in Zambia

KEY POINTS:

- The HIV prevalence rate among adults in Zambia has changed little over the last decade despite decreasing infection rates in Zambia.
- Despite the county’s high prevalence rate, there are significantly low rates of HIV knowledge among the general population.
- Life expectancy among people living with HIV in Zambia has improved significantly as a result of scaled up treatment programmes.
- Among adults who have been able to access ART in Zambia, over half are now virally suppressed.

Explore this page to find out more about populations most affected, HIV testing and counselling, antiretroviral treatment, prevention programmes, barriers to prevention, funding and the future of HIV and AIDS in Zambia.

In 2015, around 50,000 adults and 8,900 children became newly infected with HIV in Zambia.\(^1\)

New infections are decreasing, especially in children - in 2010, 60,000 adults and 13,000 children acquired HIV.\(^2\)

Contrastingly HIV prevalence in Zambia has made little progress in the last decade with records marking a 12.8% adult prevalence in 2007 compared to a 12.4% prevalence rate in 2016 according to UNAIDS.\(^3\,4\,34\)

Around 1.2 million people in Zambia are living with HIV.\(^5\) In 2015, life expectancy for men was 59 years and for women 65 years.\(^6\) This is a considerable increase from the 2012 life expectancy of 49.4 years, partly thanks to improved access to antiretroviral treatment.\(^7\)

Unprotected heterosexual sex drives the Zambian HIV epidemic, with 90% of new infections recorded as a

Zambia (2016)

<table>
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<tr>
<th>Count</th>
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<tr>
<td>1.2 million people living with HIV</td>
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<td>12.4% adult HIV prevalence</td>
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<tr>
<td>59,000 new HIV infections</td>
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<tr>
<td>21,000 AIDS-related deaths</td>
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<tr>
<td>67% adults on antiretroviral treatment</td>
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<td>52% children on antiretroviral treatment</td>
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Source: UNAIDS Data 2017
result of not using a condom. Zambia’s national HIV response is keen to address this in their future plans.8

Key affected populations in Zambia

Until recently, Zambia had not systematically collected data or monitored the impact of HIV and AIDS on key affected populations although this is now changing.

Zambia’s revised National HIV and AIDS Strategic Framework (R-NASF) 2014 – 2016 now includes indicators on sex workers, men who have sex with men, and people who inject drugs.9

Between 2011 and 2016, the Population Council and partners have been conducting the first integrated biological and behavioural research in Zambia to determine the population size, HIV prevalence and incidence among sex workers, men who have sex with men, and people who inject drugs. This research will also identify social risk factors such as stigma and discrimination, alcohol and drug use, lack of access to services, and the absence of a social support network.10

Once published, the survey’s findings will provide national policymakers with objective evidence to inform HIV prevention, care, and treatment programs for key populations. However, until this occurs, data on Zambia’s key populations remains limited.

Men who have sex with men (MSM) and HIV in Zambia

Same sex intercourse is illegal in Zambia.12 What is currently known about this group is that men who have sex with men experience a heightened vulnerability to HIV for a multitude of reasons including alcohol abuse, low levels of education, being subjected to discrimination and low economic status.13

The Zambian government’s own progress report alludes to one small-scale study in 2008, which puts HIV prevalence among this group at just 1%. However, much higher HIV prevalence is reported elsewhere, such as 33% by the MSM Global Forum (MSMGF).14 The illegal status, stigma and discrimination that men who have sex with men experience makes them a population that is difficult to reach with HIV prevention messages.

Sex workers and HIV in Zambia

The number of sex workers in Zambia is disputed, as is the HIV prevalence among this population, with studies reporting vastly different statistics.

In 2015, a study conducted by Zambia’s National AIDS Council (ZAC), FHI360 and Tropical Diseases Research Centre (TDRC) of more than 1,000 female sex workers and male long distance truck drivers found HIV prevalence among female sex workers to be 56.4%. However, prevalence among female sex workers ranged from 46% in Livingstone to 73% in Chirundu.15
Around 47% of female sex workers reported having had five or more different sex partners in the last seven days and nearly 9% reporting 10 to 14 sex partners over the same period. Around 44% used a condom with a non-paying partner and 78% used a condom with a paying client. The vast majority (95%) reported having taken at least one HIV test, of whom, 68% tested within the past year and 98% received test results.

One Zambian study investigated the link between the scale-up of voluntary medical male circumcision (VMMC), and sex workers' vulnerability to HIV. It found that many sex workers were ill informed about VMMC and its HIV prevention benefits. Also, many sex workers experience circumcised clients buying sex before their wounds have healed who try to negotiate unprotected sex because they are circumcised; both of these actions directly put sex workers at risk of HIV.

Migrants and HIV in Zambia

Many Zambians of both sexes move around the country seeking work. There are certain regions where this is more common, such as Lusaka and Copperbelt, alongside the main transport routes, where HIV prevalence is higher than other regions.

The 2015 study of female sex workers and male long distance truck drivers mentioned above found around 33% had three or more female sexual partners in the last 12 months including wives. About 23% had sex with two or more female sex workers in the last 12 months.

The survey found varying condom use depending on whom the respondents were having sex with. The results showed that, of the men questioned, condom use was at 86% with sex workers, 77% with non-regular partners, 63% with a regular partner and just 7% with wives. This suggests that respondents understood the benefits of condom use but wrongly thought it was not necessary with wives.

Testing rates among this group were high with 84% of truck drivers having tested for HIV at least once and 87% of them testing within last 2 years and almost all (99%) receiving their HIV results. HIV prevalence was not reported.

Strikingly, Zambia reports a higher vulnerability to HIV among its female migrants than male. This is due to them experiencing exploitation, abuse and gender-based violence both on their journey and at their destination which is more likely when they are temporary migrant with few employment rights.

Women and HIV in Zambia

In 2015, 640,000 of the 1.1 million adults (aged 15 and over) living with HIV in Zambia were women. Prevalence is much higher among younger women than younger men, standing at 11.2% for women and 7.3% for men aged 20-24.

This reflects three main factors:

1. Education attainment is higher among young men than young women. Therefore men are more likely to be exposed to HIV education.
2. Women are much more likely to have a partner much older than themselves who may already be living with HIV.
3. Women experience their first sexual intercourse at a younger age than men.

Zambian society and culture is extremely patriarchal, limiting the power of women in relationships. Women are often taught never to refuse their husbands sex or to insist their partner uses a condom.
The enactment of the Anti-Gender Based Violence Act took place in 2011, with a view to changing the unequal structure of society. In the coming years it is hoped that this change in law will stop women being disproportionately affected by HIV. However, there is still much to be done as more than 30% of ever married or partnered women aged 15–24 years in Zambia experienced physical or sexual violence from a male intimate partner in the previous 12 months, according to 2015 UNAIDS data.

**Children, young people and HIV in Zambia**

Children have been severely affected by the HIV epidemic in Zambia, where 85,000 children are estimated to be living with HIV, alongside 380,000 children orphaned by AIDS.

In 2016, 8,900 children (0-14 years) in Zambia became newly infected with HIV. Although this is a significant decline from 13,000 new infections among children in 2010, these latest statistics also show a turning trend from recent improvements where, in 2015, just 4,700 new infects occurred among children in comparison.

There has been a rigorous prevention of mother-to-child transmission (PMTCT) programme implemented in Zambia, which has seen the percentage of children born HIV-positive drop by 51% between 2011 and 2012. In 2015, 87% of pregnant women living with HIV were receiving effective antiretroviral treatment, just under universal health targets of 90%.

Despite these promising changes, new challenges have arisen for those infants exposed to HIV at birth, with many struggling to adhere to treatment. Among infants diagnosed with HIV in Lusaka, the Zambian capital, around 40% were reported as presenting resistance to at least one ART drug by 2014 compared to 21.5% in 2009.

Researchers investigating this increase in HIV drug resistance (HIVDR) found that infants exposed to ART medication used before birth in PMTCT programmes showed a higher prevalence and strength of resistance compared to those with no exposure. On the other hand, 20% of infants not exposed to any form of PMTCT treatment were also drug resistant which could suggest that there is a new strain of virus that is circulating Zambia more generally.
HIV testing and counselling (HTC) in Zambia

At the end of 2016, over 64% of people in need of antiretroviral treatment (ART) were receiving it. This equates to 70% of women and 58% of men living with HIV receiving ART. 33

As Zambia’s total population stood at 16.2 million in 201534, this indicates a testing rate of around 15%. However, Zambia’s Demographic and Health Survey (ZDHS) 2013-14 found 46% of female respondents and 37% of male respondents (aged 15-49) reported having an HIV test in the past 12 months and knowing their results.35 In 2016, PEPFAR reported that 42% of young people (aged 15-24) were aware of their HIV status.36

A study in 2012 found a combination of reasons explaining why people were not testing, including a fear of stigma, rejection by their sexual partner, a fear of antiretroviral treatment, and a belief that traditional medicine would keep them healthy if they became ill. These beliefs are ill-informed, but also reflect the continued stigma around HIV in Zambia.37

Couples counselling and testing is also extremely low in the country, despite this being an effective route to testing more people for HIV elsewhere.38

Despite low uptake, increased provision of HIV testing has been evident, with access now available at many VMMC, PMTCT, STI testing and blood testing sites. Mobile outreach, community-based testing and door-to-door HTC initiatives are also increasing uptake of HIV testing in Zambia.39

In 2015, UNITAID, Population Services International and partners began implementing self-testing in Malawi, Zambia and Zimbabwe through the four-year STAR Project (HIV Self-Testing Africa Research). Between 2015 and 2017, the STAR Project will distribute nearly 750,000 self-test kits across the three countries. One of the goals of the project is to generate evidence on the feasibility, acceptability and impact of self-testing that will then inform official World Health Organization (WHO) guidance on the intervention in order to catalyse self-testing across the globe.40

Antiretroviral treatment (ART) in Zambia

At the end of 2015, over 63% of people in need of antiretroviral treatment (ART) were receiving it. This equates to 67% of women and 56% of men living with HIV receiving ART.41

Zambia has adopted 2013 WHO treatment guidelines that recommends anyone who tests positive for HIV should be started on treatment, regardless of their CD4 count, which indicates the level of virus in someone’s body. This is particularly important as early treatment can increase the likelihood of someone achieving viral suppression, when levels of HIV are so low the virus is effectively suppressed and so is much less likely to be transmitted. Considering the huge increase in the number of people eligible for treatment under these new guidelines, Zambia has shown commitment to increasing ART coverage. Between 2010 and 2013, 5.6 million new people were put on ART across the world, 4% of whom were in Zambia alone.42
Results released by PEPFAR in 2016, suggest Zambia’s change in treatment policy has led to 59% of adults on ART achieving viral suppression. Viral suppression rates are much lower for younger people. PEPFAR found more than 63% of adults aged 25 or over living with HIV to have achieved viral suppression in 2016, compared to 34% of 15-24 year olds.43

In 2014, around 85% of Zambians were still on treatment after one year.44 Efforts need to be stepped up to ensure people who start treatment continue to take it as interrupted or stopped treatment causes illness, drug resistance and further transmission.45

Enhanced efforts have been made for children (0-14 years) in recent years. In 2013, only 33% of those needing ART were receiving it.46 By 2015, this had almost doubled to 61%, although more still needs to be done to reach universal health targets.47

**HIV prevention programmes in Zambia**

Zambia has a rigorous combination prevention strategy, focusing on five main action points:

- reduce exposure to HIV: heterosexual sexual intercourse and within a healthcare setting
- reduce the likelihood of HIV becoming established in the body after exposure to the virus; prevention of mother-to-child transmission (PMTCT) and post-exposure prophylaxis (PEP)
- encourage behaviour change: discuss and educate about high-risk sexual activities and stigma against people living with HIV
- thread HIV prevention messages throughout society: keep girls in school, empower women and encourage men to respect women
- ensure money and resources for the HIV response are well utilised: roll out cost-effective strategies and evaluate progress.48

Zambia has adopted a combination prevention strategy that includes behaviour change campaigns to improve health seeking behaviour. For example, Zambia’s Condomize! campaign aims to increase access to knowledge and information for young people on the benefits of both male and female condoms. By 2014, the campaign had reached more than 16,000 young women and 14,000 young men with messages on risk reduction, condom use and HIV/STI/pregnancy prevention. Through campaigns such as this one, the demand for biomedical HIV prevention services such as condoms has increased.49

**Condoms**

Zambia’s provision of free condoms in health facilities was intensified in 2014 with the number of condoms more than doubling from 7.8 million in 2013 to 19.6 million in 2014.50

Despite this, condom use remains low with ZDHS 2013-14 reporting only 29% of men and women aged 15-49 who had more than one sexual partner in the past 12 months using a condom the last time they had sex.51 However, among young people the average is 47%. This suggests that youth-centred education around condom use is positively changing behaviour among this age group.52

Zambians are most likely to use condoms with non-regular partners.53 This suggests knowledge and awareness around the preventative benefits of condoms as they are choosing to use them in these high-risk circumstances. However, further work is needed to educate and persuade people to use condoms with all sexual partners, especially if they are in multiple concurrent relationships, or change partners regularly.

**HIV education**

There are still many misconceptions about HIV and AIDS in Zambia. Latest data suggests that just
39% of people have comprehensive knowledge of HIV, despite 90% having heard of the virus.54

Knowledge is slightly better among young people (aged 15-24) with around 42% of young women and 47% of young men having comprehensive knowledge of HIV.55

If behaviour is to be changed, young people must be a priority target as 46% of all Zambians are between 0 and 14 years old.56 This provides a fantastic opportunity to ensure HIV education is included in the national school curriculum which will help to tackle the HIV epidemic effectively.

Life skills education in schools is catering to this demand, where students can learn about HIV, condom use, inter-generational sex and gender relations. However, the effects of unbalanced gender relations in society continue to prevent young girls attending school where they could learn about these topics, contributing to their disproportionate vulnerability to HIV.57

**Prevention of mother-to-child transmission (PMTCT)**

Zambia's prevention of mother-to-child transmission (PMTCT) programme has been successful. All pregnant women attending antenatal clinics received an HIV test in 2014, the most recent data available.58

Despite this, less than 60% of women attended four antenatal appointments, and 53% of women delivered their babies at home, where medical staff are not present to help with the birth and make important decisions regarding HIV risk for the child.59

The impressive scale-up saw HIV transmission from mother-to-child halve between 2009 (24%) and 2012 (12%), and a huge reduction in infant deaths.60 In 2014, it was estimated that around 9% of child infections were the result of mother-to-child transmission.61

However, a few key indicators are showing declines. For example, in 2015, 87% of pregnant women living with HIV received effective ART.62 In 2012, 2013 and 2014 this stood at 93%, 96% and 91% respectively.63

There is also a decline in the percentage of infants born to HIV positive women receiving an HIV test within the first two months of being born. In 2012 and 2013, around 70% of babies from this group were tested. In 2014, this had dropped to just 37%.64

However, knowledge around PMTCT is now high. The ZDHS 2013-14 found around 89% of women and 82% of men knew that HIV can be transmitted through breastfeeding. Around 82% of women and 66% of men were aware the risk of mother-to-child transmission can be reduced by taking special drugs during pregnancy.65

Although Zambia is striving to implement Option B+ (where all pregnant women living with HIV receive ART for life), the country is having to implement it in phases due to concerns over drug availability. More research needs to be conducted to find out whether this is due to loss to follow up, a poor retention rate in treatment and care once the baby has been born or simply a lack of knowledge.

**Voluntary medical male circumcision (VMMC)**

VMMC coverage is increasing in Zambia since the programme was launched in 2009, albeit not at the speed set out by the targets which aimed for 80% of men circumcised by 2015.66

An increasing number of sites - a total of 472 in 2014 - offering the procedure are now available. This has enabled a large increase in the number of males circumcised, from 84,604 in 2011 to around 199,000 in 2014. However, the 2014 figure is considerably less than 2013 when 294,000
men were circumcised. This is due to a lack of funding. 67

Around 60% of circumcised men in Zambia are thought to be 15-19 years old. Further awareness raising work needs to be carried out to increase the number of older men coming forward for VMMC. 68

Barriers to HIV prevention in Zambia

Social and cultural barriers

Multiple concurrent partnerships are commonplace in Zambia, heightening the risk of HIV to all involved. The patriarchal society of Zambia remains a barrier to reducing the disproportionate burden of HIV on women and young girls. However, campaigns have been implemented to raise awareness of this issue.

One Love Kwasila

In 2009 the 'One Love Kwasila' (OKL) campaign aimed to encourage men to engage around the issue of multiple concurrent partnerships and the risk of HIV transmission. The campaign’s centrepiece was a 10-part soap opera called Club Risky Business. Each week’s theme was linked to a related SMS message competition. Other materials and channels included a website, a Facebook page, branding on inter-city buses and the placement of panellists on popular radio and TV talk shows.

An evaluation of OKL found, after only two weeks on air, exposure to the campaign among men was as high as 27%. The SMS competition generated close to 10,000 responses. The Facebook site has more than 4,700 fans who continue to discuss issues raised by in the soap.

One Love Kwasila just really changed my life... I am now more aware of how high the risk of getting HIV is. ...I think everyone should watch it. Who knows it can save your life.

- Comment made on the One Love Kwasila Facebook page 69

Safe Love campaign

Between 2011 and 2014, the Safe Love campaign targeted young women. Like OKL, its main vehicle was a TV drama series called Love Games, which follows the love of five young women in urban Lusaka. The show discussed taboo topics such as condoms in marriage and multiple partners. Each episode was followed by a live discussion programme to allow viewers to discuss the story via phone, SMS, and social media.

A 2012 survey suggested the campaign was making an impact: 65% of survey respondents were exposed to Safe Love messages, and 39% reported changing their sexual behaviour as a
Legal and data collection barriers

Young people face increased barriers due to a lack of services designed to specifically meet their needs, legally those under the age of 16 are also still required to gain parental consent. This is globally recognised as a fundamental barrier to HIV testing. Lack of data on key affected populations make it impossible to determine the size, vulnerability and solutions to HIV prevention for these groups. This is especially the case for men who have sex with men and female sex workers, although the results of large-scale studies are expected to be published in 2017 to fill this gap in knowledge.

Resource barriers

HIV testing remains complex and dysfunctional, especially where access is limited by restrictive opening times at HCT facilities, and a lack of testing equipment. A lack of drug resources has also led to rationing, stock-outs, inadequate ART regimes for people living with HIV and a severe lack of drugs for children. Not only does this pose serious health issues for people living with HIV, but also increases the likelihood of onwards HIV transmission to others. Human resources remain a serious impediment to addressing HIV in Zambia. Health staff shortages, a lack of highly-trained medical staff, and capacity issues mean that even when physical resources are available, there is often not the healthcare personnel to administer them. However, community mobilisation (whereby individual members of a community help others access information and services) is being accelerated in Zambia. ZAC cites this intervention as a key element of its investment framework and a cornerstone of its HIV programmes.

For example, the four-year Community Mobilisation for Preventive Action (CoMPACT) programme, implemented by the Population Council and Project Concern International address HIV testing, gender-based violence, inequitable gender norms, sexual risk behaviours, alcohol abuse, contraceptive use and economic empowerment. In 2013, an initial evaluation of the programme found a decrease in the number of men having non-regular sexual partnerships in areas where CoMPACT was being carried out (37% to 18%). It also reported an increase in HIV knowledge (from 50% to 65%) and HIV testing (40% to 80% in men and 70% to 90% in women).

HIV and AIDS funding in Zambia

Whilst Zambia's domestic spending on HIV and AIDS has risen dramatically in recent years, it still remains at just 4% of the overall budget. Around 90% of these funds is spent on ART. PEPFAR funds the majority of the Zambian HIV response, at US $313 million in 2015. Discussions are on-going as to the possibility of integrating HIV into a National Health Fund via a Social Health Insurance Scheme, which would expand funding and therefore access to HIV services for Zambia's population. As of 2016, although the National Social Protection Bill now exists, which includes a provision for social health insurance, it has yet to be passed into law.

The future of HIV and AIDS in Zambia

Zambia needs to fully integrate behaviour change communication into all aspects of its HIV response. Providing ART, testing facilities and PMTCT services will not yield results when people are not counselled, informed and educated about the need to adhere to treatment, or get tested.
The success of PMTCT in the country is positive although some recent gains now appear to be reversing. Above all, the results from studies about key affected populations will enable better understanding and targeting of future efforts to curb the Zambian HIV epidemic. Without this knowledge it would be impossible to develop robust HIV prevention programmes.

- 1. UNAIDS ‘AIDSinfo’ [Accessed 14/09/2017]
- 33. UNAIDS ‘AIDSinfo’ [Accessed 14/09/2017]
40. London School of Hygiene and Tropical Medicine 'About the STAR project' (Accessed 5/12/2016)
41. UNAIDS (2016) 'Prevention Gap Report'[pdf]
42. UNAIDS (2013) 'Gap Report'[pdf]
43. PEPFAR (2016) 'PEPFAR Latest Global Results'[pdf]
46. UNAIDS (2013) 'Gap Report'[pdf]
47. UNAIDS (2016) 'Prevention Gap Report'[pdf]
52. UNAIDS (2013) 'AIDSinfo'
56. CIA The World Factbook (2015) 'Zambia'
59. IATT (2012) 'PMTCT Factsheet Zambia'[pdf]
70. Chemonics 'Campaigns for Health in Zambia' (Accessed 5/12/2016)
77. PEPFAR 'Partnering to Achieve Epidemic Control in Zambia' (Accessed 5/12/2016)

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