In 2018, around 48,000 adults and 5,400 children became newly infected with HIV in Zambia. New infections are slowly decreasing - in 2010, 47,000 adults and 8,800 children were newly infected with HIV. Overall, this equates to a 13% reduction in new infections since 2010.

In the same year around 1.2 million people in Zambia were living with HIV and 17,000 people died from an AIDS-related illnesses. The number of people newly diagnosed with HIV and with active tuberculosis (TB) entering care has fallen significantly from 66% in 2015 to 10 in 2017.

The country has a generalised HIV epidemic driven by heterosexual sex. In 2018, 11.3% of adults were living with HIV, a slight reduction on 2010 levels when 13% of adults were living with HIV.
Women, particularly adolescent girls and young women, are worse affected than men. In 2017, 14.3% of women aged 15 and over were living with HIV, compared to 8.8% of their male counterparts. Marginalised groups such as sex workers, transgender people, prisoners, people who inject drugs, gay men and other men who have sex with men are also disproportionately affected by HIV.

In 2018, 78% of all people living with HIV were on treatment. As of 2019, 87% of people living with HIV were aware of their status, and 89% on treatment and 75% were virally suppressed.

In 2016, life expectancy for men was 60 years and for women 64 years. This is a considerable increase from the 2012 average life expectancy of 49.4 years, partly due to improved access to antiretroviral treatment (ART).

### Populations most affected by HIV in Zambia

**Women**

In 2017, 630,000 of the 1.1 million adults (aged 15 and over) living with HIV in Zambia were women. HIV prevalence among young women was more than double that of young men (5.7% of young women were living with HIV in 2017, compared to 2.5% of young men).

The discrepancy exists due to a variety of complex and overlapping factors. Zambian society and culture is extremely patriarchal, limiting the power of women in relationships. Women experience gender-based violence (GBV) and are often not in control of their sexual and reproductive health (SRH). Young women are significantly more likely to have an older partner who may be living with HIV already; they are also likely to experience their first sexual intercourse at a younger age. Education attainment is also higher among young men than young women, which means men are more likely to be exposed to HIV education.
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 help to stop women being so 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.

To further address gender inequality, in 2016, Zambia developed a national strategy to end child marriage, and national guidelines for the provision of integrated SRH/HIV/GBV services.

Children and young people

Children have been severely affected by the HIV epidemic in Zambia. In 2017, 72,000 children (aged 0-14 years) were living with HIV, and 250,000 children and adolescents (0-17 years) have been orphaned by AIDS since the epidemic began.

Around 7,300 children became newly infected with HIV in 2017. Although this is a significant decline from the 13,000 children who became HIV positive in 2010, this latest figure indicates an upward trend, as 4,700 children contracted HIV in 2015.

A rigorous elimination of mother-to-child transmission (PMTCT) programme has been implemented in Zambia, which has seen the percentage of vertical transmission drop by 51% between 2011 and 2012.

Despite these promising changes, new challenges have arisen for babies 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. As a result of ineffective or inaccessible treatment, 3,400 children died of AIDS-related illness in 2017.

The power of peer support: reaching teenagers in Lusaka

In Lusaka, the Comprehensive PMTCT for At-Risk Teens Programme is enabling teenagers to access youth-friendly sexual and reproductive health services run by adolescents who are trained as peer educators.

The programme, which began in 2015 and is funded by the M.A.C AIDS Fund, provides youth-friendly rooms staffed by teen peer educators in eight government health facilities in suburban areas. The teenagers are trained in providing other adolescents with information and counselling on HIV, AIDS and family planning, free condoms, rapid HIV testing, and treatment adherence support. Each room also has a library and internet access, and offers dance, drama and sports activities.

Peer Educator, Nancy Chishimba, who attended the International AIDS Society’s AIDS 2018 Conference, the biggest global gathering in the HIV response, became interested in supporting others after meeting teens involved in the programme.

She said: “They spoke boldly about how a positive HIV result was not the end of the world and I realised that all was not lost. I told myself that if others could find hope, then I could do it
Sex workers

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

In 2017, 18,000 people were estimated to be engaging in sex work, around half of whom (48.8%) were living with HIV. Partial criminalisation of sex work helps to fuel violence, abuse and discrimination against people who sell sex, which increases this population’s vulnerability to HIV.

In 2015, Zambia’s National HIV/AIDS/STI/TB Council (NAC), FHI360 and the Tropical Diseases Research Centre conducted a study of more than 1,000 female sex workers and male long-distance truck drivers. Findings suggest HIV prevalence among female sex workers was as high as 73% in Chirundu, a town on the border with Zimbabwe.

In the study, 47% of female sex workers reported having had five or more different partners in the last seven days and nearly 9% reported 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% had tested within the past year and 98% had 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. Many sex workers reported that some circumcised clients bought sex before their wounds had healed and tried to negotiate unprotected sex due to their circumcision; both of these actions directly put sex workers at risk of HIV.

Men who have sex with men (MSM)

Same sex intercourse is illegal in Zambia, punishable with up to 14 years in prison. In 2017, it was estimated that there were around 6,500 men who have sex with men (sometimes known as MSM) in Zambia, although the criminalised and highly stigmatised nature of this population means the real number may be higher. What is currently known is that men who have sex with men experience a heightened vulnerability to HIV for a variety of reasons including alcohol abuse, low levels of education, low economic status and being subjected to discrimination.

In its 2014 progress report, the Zambian government references a small-scale 2008 study, which puts HIV prevalence among men who have sex with men at just 1%. However, much higher HIV prevalence is reported elsewhere: the MSM Global Forum (MSMGF) reports it to be 33%. 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.

Migrants

Many Zambians of both sexes move around the country seeking work. Regions where this is more common, such as Lusaka and Copperbelt sit alongside the main transport routes - in these areas, HIV prevalence is higher than in other regions.
A 2015 study found that around 33% of male long-distance truck drivers had three or more female sexual partners in the last 12 months including their wives. About 23% had sex with two or more female sex workers in the last 12 months.28

The survey found varying condom use, dependent on who the respondents were having sex with. 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 their wives.29

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 the last two years, and almost all (99%) receiving their HIV results. HIV prevalence was not reported.30

Zambia reports a higher vulnerability to HIV among its female migrants than male. This is unusual and is due to female migrants experiencing exploitation, abuse and gender-based violence both on their journeys and at their destinations.31

Prisoners

A high proportion of Zambia’s 21,500 prisoners are living with HIV. In 2011, the most recent official data available, prevalence was estimated at 27.4%.32

A 2010 study found poor conditions and minimal healthcare for prisoners, resulting in the transmission of both HIV and tuberculosis (TB), including difficult-to-treat and potentially deadly drug-resistant strains of both viruses. It found inmates who had completed TB treatment often chose to continue sleeping in TB-isolation cells, alongside prisoners with active TB, as they were less crowded than general population cells. While HIV testing and treatment have improved in some Zambian prisons, serious gaps remain, particularly in smaller, rural prisons.33

The church opposes the distribution of condoms in prisons on the grounds that it promotes homosexuality. Supported by the church, the prison service promotes abstinence as its main prevention approach which greatly undermines HIV prevention.34

Transgender people

Although data is extremely limited, a 2017 estimate suggested there were 20,000 transgender people living in Zambia, higher than the official population estimate of gay men and other men who have sex with men.35 As of 2018, no estimate on HIV prevalence was available for this population.

People who inject drugs (PWID)

Data is also limited on the number of people in Zambia who inject drugs, although evidence suggests that this population exists. In 2017, there were around 2,280 people who inject drugs in the country.36 As of 2018, no estimate on HIV prevalence was available for this population.

HIV testing and counselling (HTC) in Zambia

In 2016, 72% of people living with HIV in Zambia were of aware of their status.37 In the same year, PEPFAR reported that 42% of young people living with HIV (aged 15-24) were aware of their HIV status.38
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.39

A study in 2012 found a number of reasons explaining why people were not testing, including a fear of HIV-related stigma, rejection by their sexual partner and a fear of antiretroviral treatment.40

Couples counselling and testing is low in the country, despite this being an effective route to testing more people for HIV elsewhere.41 However, increased provision of HIV testing at sites where people come for voluntary medical male circumcision, sexually transmitted infection (STI) testing and blood testing is improving uptake. To reach more men, testing services are being provided in Men’s Insaka, a social group where men meet to discuss social issues. Other strategies include using male champions to reach other men, and programmes that work with traditional and civic leaders to drive HIV testing efforts among men in their constituencies.42

Mobile outreach, community-based testing and door-to-door testing initiatives are also increasing the number of people testing for HIV.43

In 2017, the Zambian government made HIV testing compulsory for any person seeking medical treatment in public health facilities. The move was met with criticism from civil society organisations who argue that compulsory testing is illegal, unethical and unconstitutional and may discourage people from seeking healthcare of any kind.44

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 distributed nearly 750,000 self-testing 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 globally.45

In 2016, a study conducted as part of STAR among more than 1,600 people in Lusaka found that 47% had not tested in the past year. However, 76% of those who had not tested in the past year reported they would definitely test if given a self-test.46

In 2017, PEPFAR announced it would pilot the use of HIV self-testing among men who have sex with men and female sex workers.47

**HIV prevention programmes in Zambia**

In 2017, 48,000 people in Zambia were newly diagnosed with HIV, with more women than men becoming positive (23,000 women compared to 17,000 men). This figure includes 7,300 children.48

Zambia has adopted a rigorous combination HIV prevention strategy, as outlined in the country’s National AIDS Strategic Framework (NASF 2017-2020).49 Some of its key focus areas are discussed below.

**Condom availability and use**

Zambia’s provision of free condoms in health facilities was intensified in 2014 with the number of free condoms available more than doubling from 7.8 million in 2013 to 19.6 million in 2014.50
Zambians are most likely to use condoms with non-regular partners. However, condom use is still relatively low as only 50% of adults used a condom the last time they had high-risk sex. Condom use is higher among men engaging in high-risk sex (at 55%), compared to women (at 41%).

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.

Condom use is thought to be even lower among young people. A study published in 2017 among young people in four urban areas of Zambia found that 59% did not use a condom the last time they had sex. Young people living in poorer areas were more likely to report non-use. Existing policies around the age of consent are thought to contribute to those under 16 being unable to access and use condoms even if they are sexually active.

Public sector condoms are mainly distributed through health facilities which leads to limited access by the general population. Also, logistical challenges and inadequate funding results in an inconsistent and inadequate supply of condoms in government-run programmes.

HIV awareness, education and approach to sex 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.

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.

If behaviour is to be changed, young people must be a priority target as around 46% of all Zambians are between 0 and 14 years old. Working towards this, by 2016, comprehensive sexuality education (CSE) was being introduced into school curriculums and strategies was being implemented to reach out to adolescents who were not in school. Through CSE classes 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.

Zambia also runs a number of 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.

The power of radio

UNAIDS and the Southern Africa HIV and AIDS Information Dissemination Service (SAfAIDS) implemented a high-impact radio programme, alongside school radio listening clubs and interactive community dialogues to improve young people’s knowledge on HIV and SRH.

By the end of December 2016, the project had reached 250,000 people, including 2,340 in-school young people, and 600 parents and traditional leaders. In addition, in partnership with Lifeline/ChildLine, 11,500 young people were linked to SRH services. The development of a mobile platform (Tune Me) for adolescents and young people has further provided information on SRH and rights.
Prevention of mother-to-child transmission (PMTCT)

Zambia's elimination of mother-to-child transmission (eMTCT) programme is one of the most successful prongs of the country’s prevention.

Since 2013, Zambia has been implementing Option B+ (where all pregnant women living with HIV receive treatment for life). In 2017, 92% of pregnant women living with HIV received antiretroviral treatment (ART) (65,680 of a total of 71,000 women). Coverage dipped in 2015, when 87% of pregnant women living with HIV received effective ART, but this latest figure indicates that the country is back on track to reach coverage similar to 2012, 2013 and 2014 levels when it stood at 93%, 96% and 91% respectively.

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

Knowledge around eMTCT is also high. The Zambia Demographic and Health Service 2013-14 found that 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 certain drugs during pregnancy.

Pre-exposure prophylaxis (PrEP)

Zambia’s National HIV and AIDS Strategic Framework 2017-2021 recognises the need for pre-exposure prophylaxis (PrEP) to be provided to at-risk populations, in particular serodifferent couples and sex workers. However, it does not provide guidance on how PrEP should be implemented and put into practice for these target populations. National guidelines on PrEP exist but implementation is linked to an enabling environment for certain key populations, which is currently lacking.

Zambia is in the process of scaling up PrEP, applying the lessons from an ongoing pilot programme. Although some targets exist they are not based on realistic population-size estimates for key populations.

In 2017, PrEP was being provided through three public health facilities, the mobilisation of those in need mainly being done by NGOs.

Programmes for young women

A number of HIV prevention programmes targeted at adolescent girls and young women exist in Zambia.

For example, Zambia is 1 of 10 countries involved in the DREAMS (Determined, Resilient, Empowered, AIDS-free, Mentored and Safe) Initiative to reduce new infections among adolescent girls and young women. DREAMS has taken tremendous strides to integrate services and approaches, and to test innovative ways to address the social drivers of HIV, including gender-based violence and gender norms.

DREAMS Zambia works in Lusaka, Ndola and Chingola and targets 10- to 14-year-olds who are behind in school or identified as vulnerable to HIV, as well as adolescent girls and young women (aged 15-24).
involved in, or vulnerable to, high-risk sex, and their male partners. The programme offers a diverse package of interventions, including condom promotion and provision, HIV testing and counselling, post-violence care, cash-transfer schemes, educational subsidies, school-based HIV and violence prevention initiatives, and parent/care-giver initiatives to change gender norms.70

Another example is the Population Council’s GirlsRead!, which combines safe space groups for girls, e-readers designed for rural Africa, and community engagement to improve school attendance, literacy skills, progression to secondary school, gender attitudes, reproductive health knowledge and self-efficacy. It also works to reduce the likelihood of school-based gender violence.71

Voluntary medical male circumcision (VMMC)

Voluntary medical male circumcision (VMMC) has been a key pillar of Zambia’s HIV prevention strategy since 2007. Zambia’s VMMC package also includes HIV testing and counselling, risk reduction, wound care and partner testing.72

Under the previous VMMC strategy, which ended in 2015, 1 million men out of a target of 1.8 million were circumcised. Between 2016 and 2020, Zambia is aiming to provide VMMC to an additional 1.9 million males aged 10-49, and will particularly focus on circumcising young men (aged 15-29). In 2016, the country achieved 75% of its annual VMMC target.73 As a result of these efforts, in 2017, around 22% of all adult men in Zambia were circumcised.74

Antiretroviral treatment (ART) availability in Zambia

At the end of 2017, 75% of people in need of antiretroviral treatment (ART) were receiving it. This equates to 80% of women, 70% of men, and 64% of children living with HIV receiving ART.75

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 cannot 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.

In 2017, 80% of people on treatment were still in care after 12 months.76 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.77

Some of the contributing factors that lead people to drop out of treatment include HIV-related stigma, denial of HIV status, excessive alcohol consumption, inadequate counselling, high poverty levels, and migration to other areas. In some rural areas, geographical barriers such as long distances to ART clinics and poor or dangerous roads also lead people to default on treatment.78

In 2016, 83% of people living with HIV who were aware of their status and on treatment were virally suppressed. This equates to 60% of all people living with HIV in Zambia.79 Viral suppression rates are much lower for younger people. PEPFAR found that around 34% of 15- to 24-year-olds living with HIV who were on treatment were virally suppressed in 2016.80

Specific issues relating to children, adolescents and young people accessing and adhering to treatment include a lack of youth-friendly treatment services and high levels of depression. A study
among 190 HIV-positive adolescents in Zambia found that one in four (25%) were depressed. In the study, 94% of participants were taking ART, but 28% were non-adherent. Factors associated with non-adherence to ART were loss of a mother, lack of basic knowledge about HIV, management of medication, physical reactions to medicine, and psychosocial distress.81

HIV drug resistance

Between 2014 and 2016, Zambia conducted a survey on the presence of HIV drug resistance (HIVDR), which is when strains of HIV are resistant to certain types of antiretrovirals. Results indicated that 4.3% of adults on ART after 12 to 24 months had some form of HIVDR. This figure rose to 47.3% among adults on treatment who were not virally suppressed.82

In 2017, researchers investigating HIVDR among infants in Zambia, found that those exposed to ART before birth through eMTCT programmes had a higher prevalence and strength of HIVDR than those with no exposure to eMTCT programmes. However, 20% of HIV-positive infants not exposed to any form of eMTCT treatment were also drug resistant, suggesting HIVDR to be circulating more widely than previously estimated.83
Everyone talks about community systems strengthening and how important communities are because we’re the people that do the work on the ground. So, if that’s the case, where are the resources for people living with HIV and tuberculosis survivors to play their role? Donor programmes come and go but we’ll be doing this for the rest of our lives.

– Felix Mwanza, Treatment Advocacy and Literacy Campaign

HIV and tuberculosis (TB) in Zambia

Tuberculosis (TB) continues to be a major public health concern in Zambia. An estimated 361 people per 100,000 were newly infected with TB in 2017, 210 of whom were living with HIV. In the same year, 10.2% of people living with HIV newly enrolled in care had active TB.

Zambia is listed by the World Health Organisation as being one of 30 high-burden TB countries. The country’s TB programme faces a number of challenges including declining TB notification rates, poor documentation of TB screening for people living with HIV, inadequate infection control measures, and a lack of integrated HIV and TB services.

Barriers to the HIV response in Zambia

Legal, cultural and socio-economic barriers

Multiple concurrent partnerships are commonplace in Zambia, heightening the risk of HIV to all involved. The patriarchal society remains a barrier to reducing the disproportionate burden of HIV on women and girls.

Three of the most dominant church bodies: the Christian Council of Churches, the Evangelical Fellowship of Zambia and the Zambia Episcopal Fellowship, have issued public statements against LGBTI human rights, informing not only public discourse and opinion, but also the Zambian constitution’s position on sexual orientation and gender identity.

Structural and resource barriers

HIV testing remains complex and dysfunctional, especially where access is limited by limited opening times at testing facilities, and a lack of testing equipment. A lack of drug resources has also led to rationing, stock-outs, and inadequate ART regimes for people living with HIV, particularly 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 (when individual members of a community help others access information and services) is being accelerated.

Although the government has allowed HIV prevention programmes for key populations to be implemented, programmes are never on the scale needed to make a significant impact on the HIV epidemic. In addition, only NGOs and other international partners provide these programmes, which raises the issue of sustainability. In certain cases, implementers are struggling to bring lubricants and other essential prevention tools for key populations into the country due to restrictive national policies.

**Stigma and discrimination**

Although the Zambian government has created an environment in which NGOs and other international partners can discuss, design and implement programmes for key populations, the country’s restrictive policy and legal environment means key populations cannot access HIV services without stigma and discrimination.

Key populations also experience negative attitudes from others in authority such as police workers and from the general public itself. HIV-related stigma is also an issue, as it is in all countries in the world, although this is reducing. In 2007, 30% of adults in Zambia displayed discriminatory attitudes towards people living with HIV, in 2014 this had halved to 14%.

**Data issues**

Zambia continues to have data challenges, particularly variations in HIV data due to it originating from multiple sources. Lack of data on key populations is a major issue, making it impossible to determine the size, vulnerability and solutions to prevent HIV for these groups.

**Funding for HIV 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 ongoing 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 2017, 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 in Zambia**

Zambia needs to fully integrate behaviour change communication into all aspects of its HIV response. Providing ART, testing facilities and eMTCT services will not yield results if people are not counselled, informed and educated about the need to adhere to treatment, or get tested regularly. The success of eMTCT in the country is encouraging although some recent gains now appear to be reversing.
A major focus must remain the creation of an enabling legal and policy environment for adolescent girls, young people and key populations to exercise their sexual and reproductive health and rights, and access welcoming, quality, integrated SRH and HIV services.103

More data on key affected populations is also needed to enable better understanding and targeting of future efforts to curb the Zambian HIV epidemic. Without this knowledge it will be impossible to develop robust HIV prevention programmes.

1. UNAIDS 'AIDSinfo' (accessed August 2019)
2. UNAIDS 'AIDSinfo' (accessed August 2019)
3. UNAIDS 'AIDSinfo' (accessed August 2019)
4. UNAIDS 'AIDSinfo' (accessed August 2019)
5. UNAIDS 'AIDSinfo' (accessed August 2019)
6. UNAIDS 'AIDSinfo' (accessed August 2019)
7. UNAIDS 'AIDSinfo' (accessed October 2018)
8. UNAIDS 'AIDSinfo' (accessed August 2019)
11. UNAIDS 'AIDSinfo' (accessed October 2018)
15. UNAIDS ‘Zambia: results’ (accessed October 2018)
16. UNAIDS 'AIDSinfo' (accessed October 2018)
17. UNAIDS 'AIDSinfo' (accessed October 2018)
20. UNAIDS 'AIDSinfo' (accessed October 2018)
21. UNAIDS 'AIDSinfo' (accessed October 2018)
22. NAC/FHI/TDRC (2016) ‘Integrated Biological and Behavioural Surveillance Survey (IBBSS) among Female Sex Workers and Male Long Distance Truck Drivers in Five Corridors of Hope Project District Sites in Zambia, 2015’ [pdf]
23. ibid
25. UNAIDS 'AIDSinfo' (accessed October 2018)

29. NAC/FHI/TDRC (2016) ‘Integrated Biological and Behavioural Surveillance Survey (IBBSS) among Female Sex Workers and Male Long Distance Truck Drivers in Five Corridors of Hope Project District Sites in Zambia, 2015’ [pdf]

30. NAC/FHI/TDRC (2016) ‘Integrated Biological and Behavioural Surveillance Survey (IBBSS) among Female Sex Workers and Male Long Distance Truck Drivers in Five Corridors of Hope Project District Sites in Zambia, 2015’ [pdf]


32. UNAIDS 'AIDSinfo' (accessed October 2018)


34. AVERT News feature (26 September, 2016) ‘Prisoners in Zambia need better access to HIV services’ (accessed October 2018)

35. UNAIDS 'AIDSinfo' (accessed October 2018)

36. UNAIDS 'AIDSinfo' (accessed October 2018)

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38. PEPFAR (2016) ‘PEPFAR Latest Global Results’ [pdf]


44. ARASA (18 August, 2017) ‘MEDIA RELEASE: Zambian civil societies express deep concern over compulsory HIV testing’

45. London School of Hygiene and Tropical Medicine ‘About the STAR Initiative’ (accessed October 2018)

46. HIVST.org ‘Acceptability and preferences for HIVST in Zambia: A population-based formative study using a discrete choice experiment’ (accessed October 2018)


48. UNAIDS 'AIDSinfo' (accessed October 2018)

49. NAC/Zambia Ministry of Health ‘National HIV and AIDS Strategic Framework 2017-2021’ [pdf]


52. UNAIDS 'AIDSinfo' (accessed October 2018)

56. UNAIDS ‘AIDSinfo’ (accessed October 2018)
60. UNAIDS ‘Zambia: results’ (accessed October 2018)
68. ibid
69. ibid
70. PEPFAR (2016) ‘Zambia DREAMS Overview’ [pdf]
73. ibid
74. UNAIDS ‘AIDSinfo’ (accessed October 2018)
75. UNAIDS ‘AIDSinfo’ (accessed October 2018)
76. UNAIDS ‘AIDSinfo’ (accessed October 2018)
79. UNAIDS ‘AIDSinfo’ (accessed October 2018)
80. PEPFAR (2016) ‘PEPFAR Latest Global Results’ [pdf]
82. WHO ‘HIV drug resistance report’ 2017 [pdf]
Where discussions on public health include some consideration for men who have sex with men as one of the key populations to be considered in combating HIV, other sexual minorities are insufficiently considered in existing efforts.

97. UNAIDS ‘AIDSinfo’ (accessed October 2018)
100. PEPFAR ‘Partnering to Achieve Epidemic Control in Zambia’ (accessed October 2018)
103. UNAIDS ‘Zambia: results’ (accessed October 2018)