

HIV EPIDEMIOLOGY REPORT FOR THE MINISTRY OF HEALTH

▶ JAMAICA



HIV EPIDEMIOLOGY REPORT FOR THE MINISTRY OF HEALTH

2017

Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Clinic
ART	Antiretroviral Therapy
ARV	Antiretroviral
BCC	Behaviour Change Communication
CARICOM	Caribbean Community
CI	Contact Investigator
CIMT	Caribbean Indicators and Measurement Tools
CRIS	Country Response Information System
CSW	Commercial Sex Worker
ERTU	Epidemiology Research and Training Unit
GoJ	Government of Jamaica
HATS	HIV/AIDS Tracking System
HFLE	Health and Family Life Education
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
JN+	Jamaica Network of Seropositive
KABP	Knowledge, Attitudes, Behaviour and Practices
M&E	Monitoring & Evaluation
MESST	Monitoring and Evaluation Systems Strengthening Tool
MERG	Monitoring and Evaluation Reference Group
MCSR	Monthly Clinic Summary Report
MSM	Men who have Sex with Men
MTCT	Mother to Child Transmission
NERHA	North East Regional Health Authority
NHP	National HIV/STI Programme
NPHL	National Public Health Laboratory
NSP	National Strategic Plan
NGO	Non-Government Organization
PAHO	Pan American Health Organization

PLACE	Priority for Local AIDS Control Efforts
PLHIV	People Living With HIV
PMTCT	Prevention of Mother to Child Transmission
RHAs	Regional Health Authorities
SERHA	South East Regional Health Authority
SRHA	Southern Regional Health Authority
STI	Sexually Transmitted Infections
FSW	Female Sex Worker
UNAIDS	Joint United Nations Programme on HIV and AIDS
UNGASS	United Nations General Assembly Special Session on HIV
USAID	United States Agency for International Development
VCT	Voluntary Counselling and Testing
WHO	World Health Organization
WRHA	Western Regional Health Authority

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SUMMARY OF HIV CASES DIAGNOSED BY YEAR AND SEX, 1982 TO 2017

SUMMARY OF AIDS DEATHS IN JAMAICA, 1982 – DEC 2017

SUMMARY OF AIDS DEATH BY PARISH IN JAMAICA, 1982 – DEC 2017

Background

In Jamaica, HIV/AIDS is a class 1 notifiable disease according to the Public Health (Class 1 Notifiable Disease) Order, 2003 (section 2). The order states, where a medical practitioner suspects that a person has contracted Human Immunodeficiency Virus (HIV), the medical practitioner shall forthwith or not later than twenty-four hours after the case is discovered, make a report to-

- a) the Public Health Department for the parish in which the suspected case has been found; or
- b) the Surveillance Unit of the Ministry responsible for Health.

A report under subparagraph (1) may be made—

- a) in writing, on a Class 1 Notification Form; or
- b) by any other appropriate means, if the circumstances so require.¹

Jamaica has a well-established web-based HIV Case-Based Reporting system that facilitates real-time reporting and allows for the efficient management and analysis of data.

Data emanating from the Case-Based Surveillance system and estimates generated from surveillance models indicates that as of December 2017, there were 34,000 persons living with HIV in Jamaica, of whom 22% (approximately 7,480) of the persons living with HIV were unaware of their status. The data indicates an estimated HIV prevalence of 1.8% in the general population. During the period of 1982 – 2017, a total of 35,563 diagnosed cases of HIV infections were reported, of which, 28% (10, 127) are known to be deceased.

The data showed an increase of 33.5% (230) in the number of reported cases that were classified at the advanced HIV stage, from 686 cases (2015) to 916 cases (522 males/ 394 females; 2016). Advanced HIV refers to persons with a CD4 count ranging between 201-350.

The AIDS mortality rate declined from 25 deaths/100,000 population in 2004 to 13 deaths/100,000 population in 2016 which represents a 48% decrease since the inception of Universal Access to ARVs in 2004. The reduction in reported AIDS deaths, was confirmed by

the Spectrum modelling estimates, noting the limitation that deaths are under reported. The main contributors to this decline include scaling up of the national VCT programme through the use of rapid test kits – allowing for earlier and more timely diagnoses, greater public access to antiretroviral treatment, the availability of prophylaxis and improved laboratory capacity to conduct investigations such as CD4 counts, viral load and PCR tests. Additional strategies that contributed to this decline include the advances in diagnoses, the wider availability of treatment and routine clinical monitoring of PLHIV.

However, despite these advances, suboptimal retention in care and poor adherence to treatment pose a significant challenge to reduction of AIDS morbidity and mortality efforts.

Purpose

The 2017 Annual HIV/AIDS Epidemiological Report is to provide evidence for the National HIV/STI/Tb Programme's strategic direction, priority strategies and activities. This report is intended for public health professionals, policymakers and all other partners in the national HIV response for use in planning and evaluation of the strategies and activities implemented to address epidemic control and to guide patient and programme management.

It is anticipated that this report will provide a clearer understanding of the HIV epidemic in Jamaica and the various risk-factors associated with transmission. It is also expected that this report would lead to greater awareness of the magnitude of HIV/AIDS and contribute to safer-sex practices in the population if widely disseminated, used to inform decision making and influence the relevant policy changes to achieve epidemic control.

Methodology

In Jamaica, each person diagnosed with HIV or suspected to be HIV-positive including babies born to HIV positive mothers is reported using the Class 1 Reporting Form. Notifications are made even if individuals are asymptomatic or found to be presumptively positive after a rapid test. The Class 1 Reporting Form is then submitted to the Health Department and/or the Ministry of Health to ensure that persons who have not received a confirmatory HIV test are contacted for follow-up and confirmation.

An HIV diagnosis is based on a positive HIV antibody testing (whether rapid or laboratory-based enzyme immunoassay) for adults and children 18 months or older. This is then confirmed with a second and a third HIV antibody test (whether rapid or laboratory-based enzyme immunoassay) relying on different antigens or on different operating characteristics and/or; positive virological test for HIV or its components (HIV-RNA or HIV-DNA or ultrasensitive HIV p24 antigen) confirmed by a second virological test obtained from a separate determination.

Regarding children younger than 18 months, HIV infection is diagnosed based on a positive virological test for HIV or its components (HIV-RNA or HIV-DNA or ultrasensitive HIV p24 antigen) and then confirmed by a second virological test obtained from a separate determination taken at least five weeks after birth. An HIV antibody test is not recommended for confirmatory HIV infections until 18 months of age.

When the class 1 and confidential reporting forms enter the National Surveillance Unit at the Ministry of Health they are classified as HIV, advanced HIV or AIDS depending on the client's CD4 count, or AIDS Related Death. The forms are then entered into the HIV/AIDS tracking system (HATS), where identifiers, such as name(s), mother's name, date of birth and others are used to reduce duplication of cases. An export of HATS is completed at the end of each year and the data was used to provide the epidemiological profile of the country.

The date of test is used as the date of diagnosis for the client. In lieu of the date of test, the date the class 1 form was reported is used as the date of diagnosis. It is important to note that

the date the class 1 is reported may be delayed for up to a year after the person is tested; therefore, this date is not the preferred indication of incidence but is used as a proxy.

The HIV cases documented in this report are based on the aforementioned HIV notification system and the confidential reporting forms that were received by the National Surveillance Unit, Ministry of Health Jamaica as at May 1, 2018.

While this system is routinely monitored and audited it must be noted that there are potential data limitations. Specifically, some notifications received are incomplete and as such, not included in this report. Furthermore, late reporting – that is, HIV related cases or events being reported after the mandated timeframe; incomplete reports – forms missing date of births, addresses, telephone contacts and other critical information; client aliases leading to duplications in the database; and under-reporting because some providers are not reporting HIV positive cases, particularly in the private sector may pose challenges to the quality of the data reported. However, while acknowledging the limitations, efforts were made to ensure that the data reported is as sound as possible.

PEOPLE LIVING WITH HIV

Key Facts

- There were 1,197 new HIV infections in 2017.
- The Parishes of Kingston and St. Andrew had the majority of new HIV infections and Manchester the least number of new HIV infections in 2017.
- Overall males accounted for the higher proportion of new HIV infections in 2017
(*Males: 621, Females: 576*)
- In 2017, new HIV cases diagnosed declined by 41% from 2016.
- There were approximately 8% fewer late diagnoses (*Advanced HIV, AIDS, and AIDS Deaths*) than the previous year (2016)
- In 2017, there was a 10% decrease in AIDS deaths from 2016.
- The majority of deaths amongst PLHIV occurred between the ages 40 years to 49 years for males and 30 years to 39 years for females in 2017.

Sociodemographic Factors

Jamaica is the third largest of the Caribbean islands, and the largest English-speaking island in the Caribbean Sea. Situated 90 miles south of Cuba, and 100 miles south-west of Haiti, Jamaica is approximately 146 miles long, 51 miles wide, and has an area of 4,411 square miles (United Nations, 2018). The capital, Kingston, is the largest city and is located in the south-eastern part of the island. The estimated population of the country is 2.7 million (STATIN, 2018).

There have been no major shifts in the population distribution by parishes from the mid-year to end-of-year tallies. The parish with the greatest population is Kingston & St Andrew, followed by St Catherine and Clarendon (Table 1).

Table 1: Jamaica's population distribution by parish, 2017 (using table below)

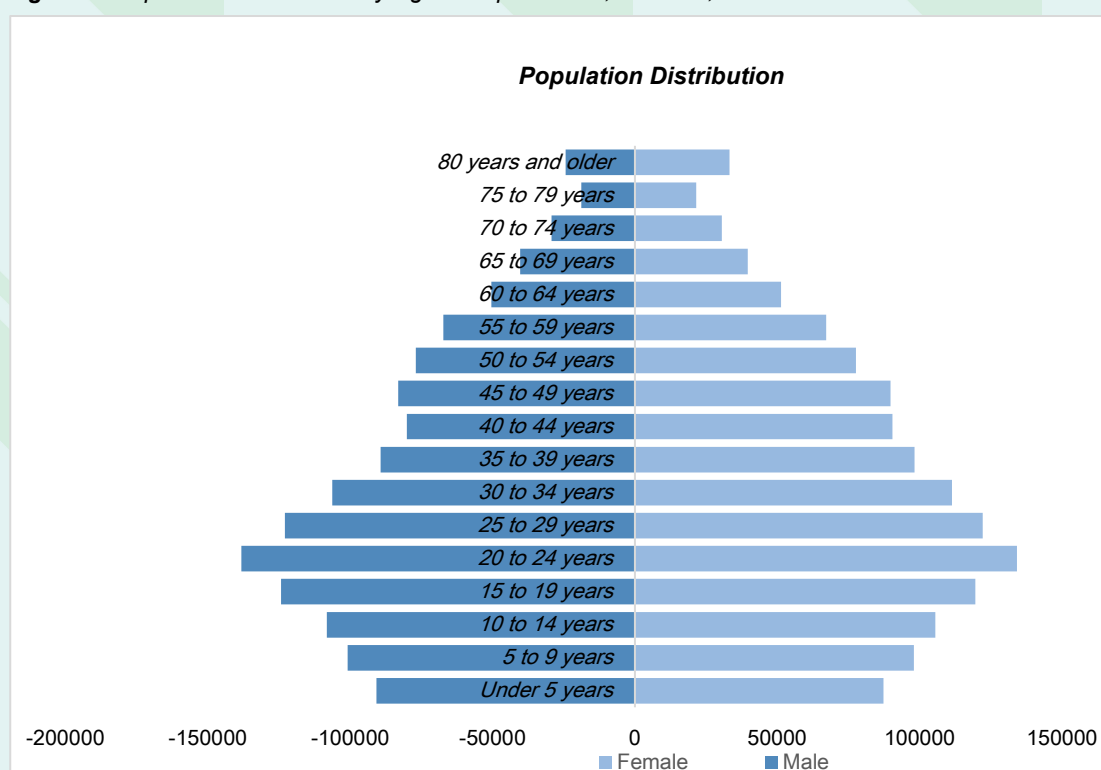
Parish	End of year	Mid-year
Kingston & St Andrew	670, 312	670,325
St Thomas	95,015	95,017
Portland	82,710	82,712
St Mary	114,959	114,962
St Ann	174,343	174,346
Trelawny	76,043	76,044
St James	185,846	185,850
Hanover	70,322	70,324
Westmoreland	145,746	145,749
St Elizabeth	151,961	151,964
Manchester	192,036	192,039
Clarendon	247,902	247,906
St Catherine	521,669	521,679

Source: STATIN, 2017

The proportion of the population in the younger age groups (0-4 and 5-14) have been falling and the older age groups (45-64 and 65 over) have been increasing since the 1970 population census (STATIN, 2018). The change in the distribution of the population by age is reflected in the increasing median age when the 2011 (27.9) census is compared to that of 1970 (16.8) (STATIN, 2018). This change in the median age is evidence of the ageing population (STATIN, 2018) (Figure 1).

An examination of the Jamaican population shows that since 1980 the population has been growing at less than one per cent per annum (STATIN, 2018). Although the decade of 2010 has not yet ended, the decline in the growth of the population of Jamaica is evident, as over the past seven years the population has grown by 0.20% (STATIN, 2018). The low rate of increase of the population can be attributed to the decline in fertility and the increased outward migration. At the end of 2017, the population of Jamaica was estimated at 2,728,864 of which 1,351,392 were males and 1,377,472 were females (STATIN, 2018).

Figure 1: Population Distribution by Age Group and Sex, Jamaica, 2017



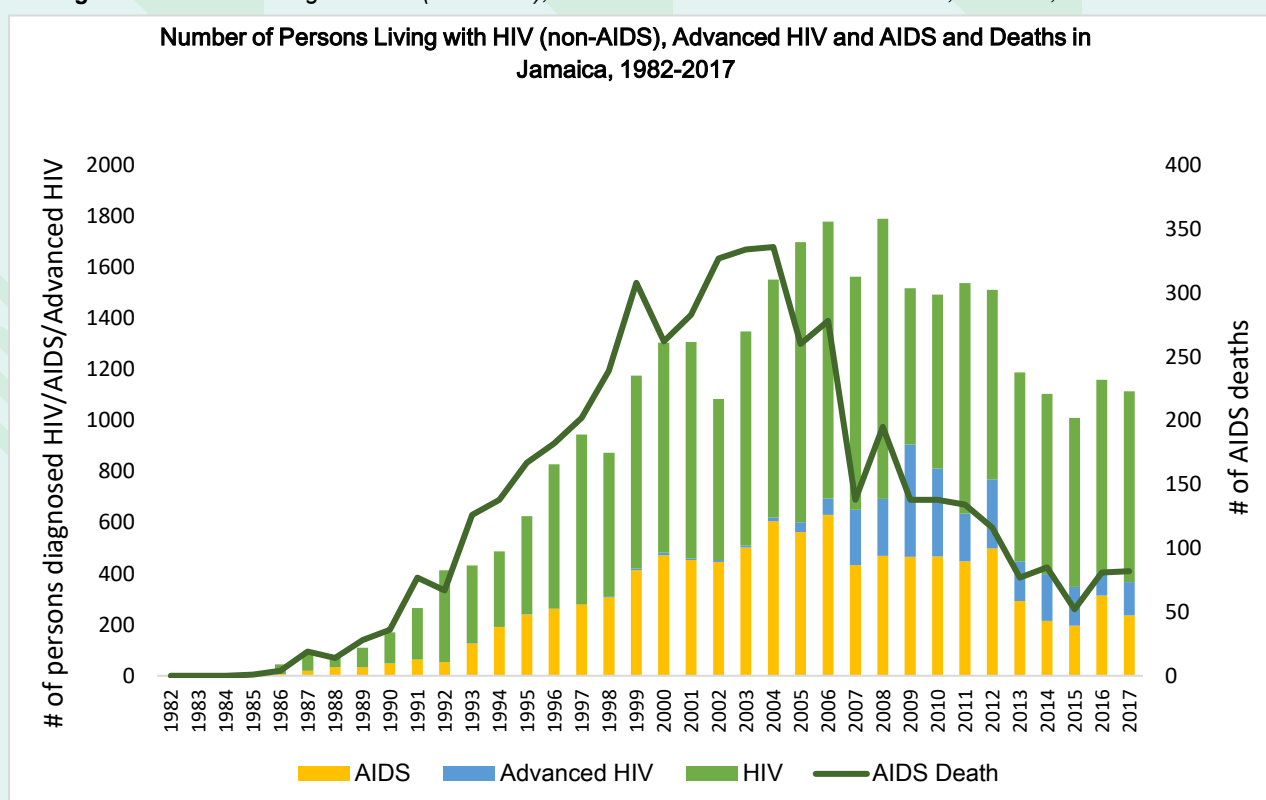
Source: STATIN, Jamaica

People living with HIV

Modelled estimates and case based surveillance data estimate that there are 34,000 (Spectrum, UNAIDS, 2017) persons living with HIV in Jamaica of whom, 22% are unaware of their status. In Jamaica's general population, HIV prevalence is estimated to be 1.8%. Since January of 1982 to December of 2017, the Ministry of Health has received reports of 36,553 diagnosed cases of HIV infection of which, 10,127 (27.7%) are known to be deceased.

Since the beginning of the HIV epidemic in 1982, there was a steady increase in the number of persons living with HIV and AIDS with its peak around 2006 and 2008. The numbers have been on the decline with some troughs. In the past two years (2016 and 2017) there has been a noticeable increase in HIV (non-AIDS), advanced HIV and AIDS. Since 2004, the number of direct or indirect AIDS deaths have also been on the decline but rose slightly in 2016 (Figure 2). Despite advances in antiretroviral therapy, retention in care and poor adherence to treatment are ongoing challenges hampering the reduction of AIDS morbidity and mortality.

Figure 2: Persons Living with HIV (non-AIDS), Advanced HIV and AIDS and Deaths, Jamaica, 1982-2017



Source: HIV/STI/Tb Unit, Ministry of Health

Using the population estimates from STATIN for the years between and including 1982-2017 the rates of HIV (non-AIDS), advanced HIV, AIDS and AIDS deaths (direct and indirect) were

calculated. The year with the highest rate of HIV (not AIDS) was 2005. The year with the highest rate of advanced HIV was 2009. The year with the highest rate of AIDS was 2006. The year with the highest rate of AIDS deaths (direct and indirect) was 2004 (*Table 2*).

Table 2: Persons Reported with HIV and AIDS and Deaths in Jamaica, 1982- 2017
Source: HIV/STI/Tb Unit, Ministry of Health

Year	Persons reported with HIV (not AIDS)		Persons reported with Advanced HIV		Persons reported with AIDS		HIV/AIDS related deaths		All persons reported with HIV/AIDS (including Advanced HIV)	
	N	Rate	N	Rate	N	Rate	N	Rate	N	Rate
1982-1989	233	9.873	1	0.042	103	4.364	66	2.797	403	17.078
1990-1994	1286	52.005	1	0.040	482	19.492	444	17.955	2213	89.491
1995-1999	2936	113.72	10	0.387	1504	58.256	1098	42.523	5548	214.896
2000	822	31.651	11	0.424	472	18.174	262	21.447	1567	60.336
2001	848	32.520	6	0.230	454	17.410	283	23.623	1591	61.013
2002	631	24.089	7	0.267	446	17.027	327	26.571	1411	53.867
2003	839	31.908	7	0.266	503	19.130	334	25.747	1683	64.007
2004	931	35.280	16	0.606	605	22.926	336	26.526	1888	71.546
2005	1097	41.422	39	1.473	563	21.259	260	20.692	1959	73.971
2006	1085	40.824	65	2.446	630	23.704	278	19.302	2058	77.434
2007	913	34.231	217	8.136	434	16.272	138	10.985	1702	63.812
2008	1098	41.021	223	8.331	470	17.559	195	16.027	1986	74.197
2009	613	22.821	440	16.381	466	17.349	138	14.519	1657	61.688
2010	681	25.264	345	12.799	467	17.325	138	14.728	1631	60.507
2011	903	33.393	187	6.915	449	16.604	134	12.647	1673	61.868
2012	742	27.365	271	9.995	499	18.403	116	10.400	1628	60.041
2013	741	27.264	155	5.703	293	10.781	77	5.850	1266	46.581
2014	706	25.925	183	6.720	215	7.895	85	7.197	1189	43.661
2015	662	24.273	152	5.573	196	7.187	52	4.987	1062	38.939
2016	754	27.629	92	3.371	314	11.506	81	9.527	1241	45.475
2017	748	27.411	131	4.801	236	8.648	82	10.737	1197	43.864

Table 3 and figure 3 present the rate of persons living with HIV/AIDS in Jamaica by parish of residence from 1982 – 2017. The parish of St James had the highest PLHIV per 100,000 population rate (1709.5), this rate means that approximately 2 in every 100 persons residing in St James is living with HIV. St Elizabeth had the lowest PLHIV per 100,000 population rate (448.8), which can also be interpreted as approximately 4 in every 1000 persons residing in

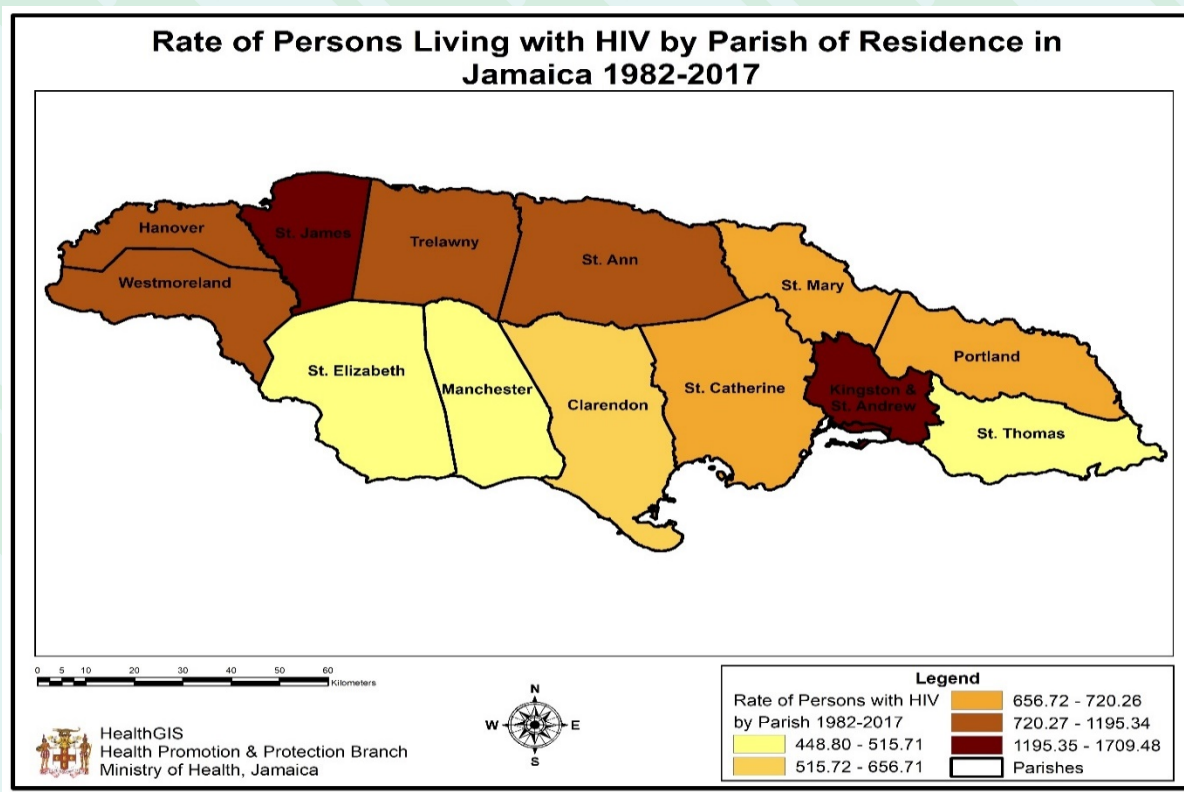
St Elizabeth are living with HIV. The five highest PLHIV rates are among parishes that are considered to be urban or tourism-centric: St James, Kingston & St Andrew, St Ann, Westmoreland and Trelawny.

The death rate of PLHIV was highest in St James (0.34) for the 1982-2017 period, followed by Hanover (0.33), Westmoreland (0.32) and Trelawny (0.31) as seen in table 3. Of note, the parishes among the highest fatality rate are all those in the western region. The lowest case fatality rate was in Clarendon (0.15) which is followed by St Ann with a 0.18 rate.

Table 3: Rate of persons living with HIV/AIDS by Parish of Residence, Jamaica, (2017 and cumulative)
Source: HIV/STI/Tb Unit, Ministry of Health

Parish	Total HIV/AIDS cases	Deaths among PLHIV 1982-2017		Total PLHIV	Parish Pop.	HIV RATE PER 100,000 Population
	1982 - 2017	N	Rate	1982 - 2017	STATIN	2017
Kingston & St Andrew	13056	3850	0.29	9206	670312	1373.4
St Thomas	614	124	0.20	490	95015	515.7
Portland	804	215	0.27	589	82710	712.1
St Mary	1203	375	0.31	828	114959	720.3
St Ann	2533	449	0.18	2084	174343	1195.3
Trelawny	1007	310	0.31	697	76043	916.6
St James	4799	1622	0.34	3177	185846	1709.5
Hanover	937	307	0.33	630	70322	895.9
Westmoreland	2081	673	0.32	1408	145746	966.1
St Elizabeth	968	286	0.30	682	151961	448.8
Manchester	1269	341	0.27	928	192036	483.2
Clarendon	1912	284	0.15	1628	247902	656.7
St Catherine	5018	1265	0.25	3753	521669	719.4
Parish Unknown	319	19	NA	300	N/A	N/A
Overseas address	33	7	NA	26	N/A	N/A
Total	36553	10127	0.28	26426	2728864	968.4

Figure 3: Rate of persons living with HIV/AIDS in Jamaica by Parish of residence (1982-2017)

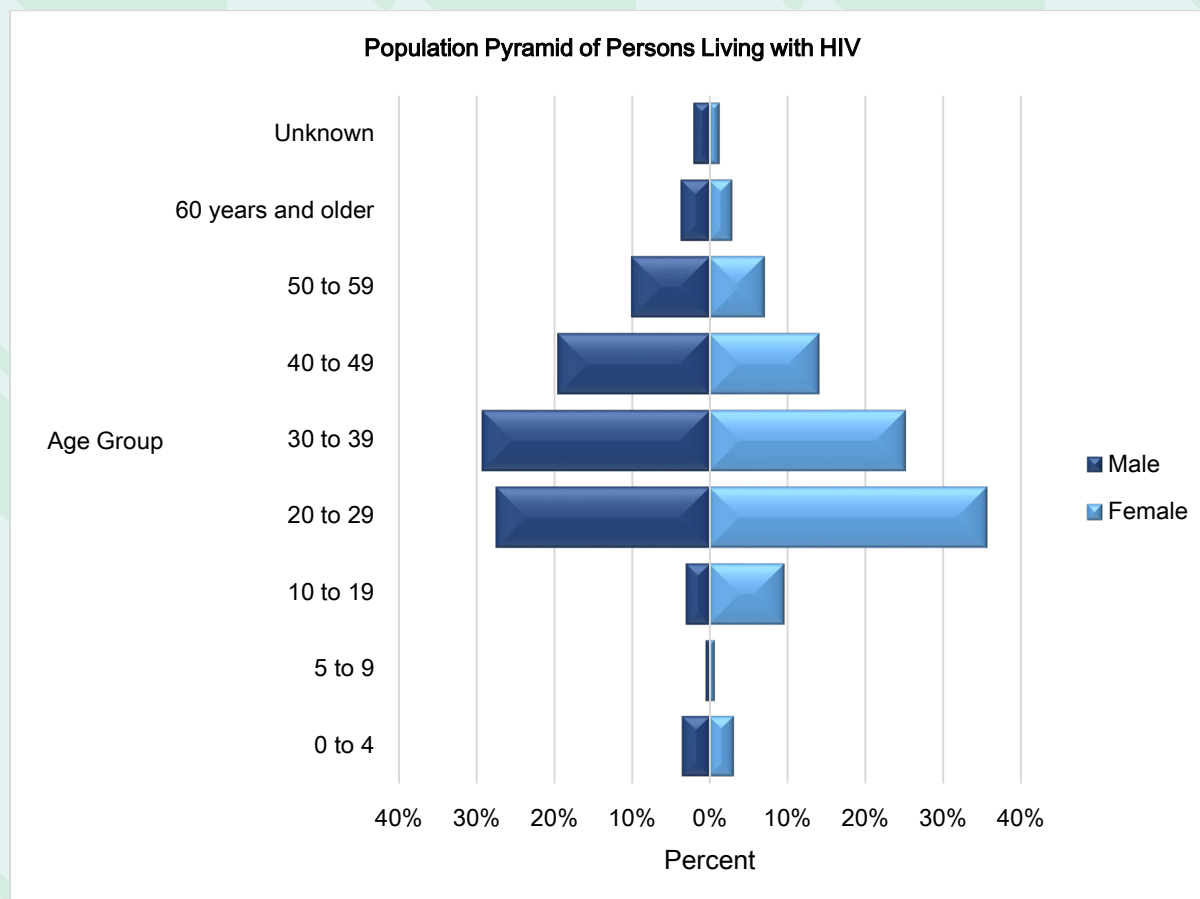


Source: National Epidemiology Unit, Ministry of Health

Among the 26426 PLHIV in Jamaica for the year 2017, the male: female ratio was 1:1.02. The cumulative HIV/AIDS case rates for females is (968 cases per 100,000) and this is slightly higher when compared to the male rate of (965 cases per 100,000). More males are diagnosed with HIV/AIDS and still more also die whether directly or indirectly related to the disease, therefore more women are living with the disease than men (see Figure 4 below).

People between the ages of 20 to 39 years have the highest number of people currently living with HIV/AIDS among all age groups and both sexes. Among females, the 20 to 29 year olds dominate that group and among male PLHIVs, the 30-39 year olds dominate the group. The 0-4 age group accounts for 3% and the 5-9 age group account for less than 1% of the total number over the 35-year period. For PLHIV reported to the MOH, there were 15 unknown gender in the 0-4 year's age group and 37 unknown gender in the unknown age group as well.

Figure 4: People living with HIV/AIDS by Sex and Current Age Group, Jamaica (1982-2017)



Source: HIV/STI/Tb Unit, Ministry of Health; *Fifty-two cases were reported without age and sex information

The total HIV seroprevalence among antenatal clinic (ANC) participants increased from 0.8% in 2016 to 0.9% in 2017. When HIV sero-prevalence for individual parishes were compared between 2016 and 2017, increases were observed in the parishes of KSA, St. Catherine, and St. James, while decreases were observed in St. Ann, Clarendon, and Westmoreland (Table 4). Increases in HIV seropositive prevalence were also observed in most age groups in 2017 when compared with 2016 (Table 11).

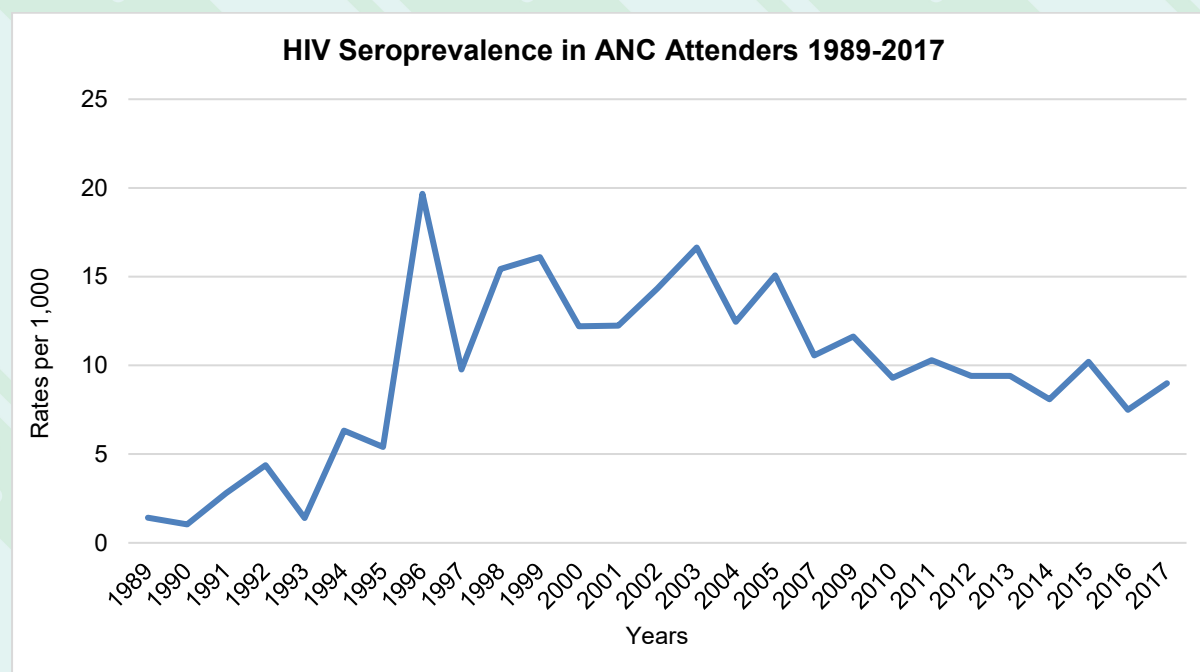
Table 4: Seroprevalence of HIV by parish among ANC attendees who participated in the 2017 sentinel survey
Source: National Epidemiology Unit, Ministry of Health

PARISH	2016			2017		
	Total Tested	Total Positive	% Positive	Total Tested	Total Positive	% Positive
Kingston & St Andrew	1,547	12	0.78	1,313	18	1.37
St Catherine	1,161	8	0.69	1,057	12	1.14
St Ann	569	5	0.88	523	2	0.38
Clarendon	781	6	0.77	803	2	0.25
St James	464	4	0.86	460	8	1.74
Westmoreland	695	4	0.58	610	1	0.16
Total	5,217	39	0.75	4,766	43	0.90

Figure 5 illustrates the HIV seropositive prevalence trends among the antenatal clinic attendees for the period 1989 -2017.

From the graph below it can be noted that the HIV seropositive prevalence among Antenatal Clinic attendees peaked in 1996. There have been a number of fluctuations in the HIV seropositive prevalence over the years, with an overall decline since 2009. There was an almost steady decline observed between 2011 and 2014. In 2015 however, the HIV seropositive prevalence increased almost to what it was in 2011. The HIV seropositive prevalence for 2016 fell below those of the prior seven years. In 2017 the seroprevalence rate increased (compared to 2016) and was similar to rates seen in 2010, 2012 and 2013 (Figure 2).

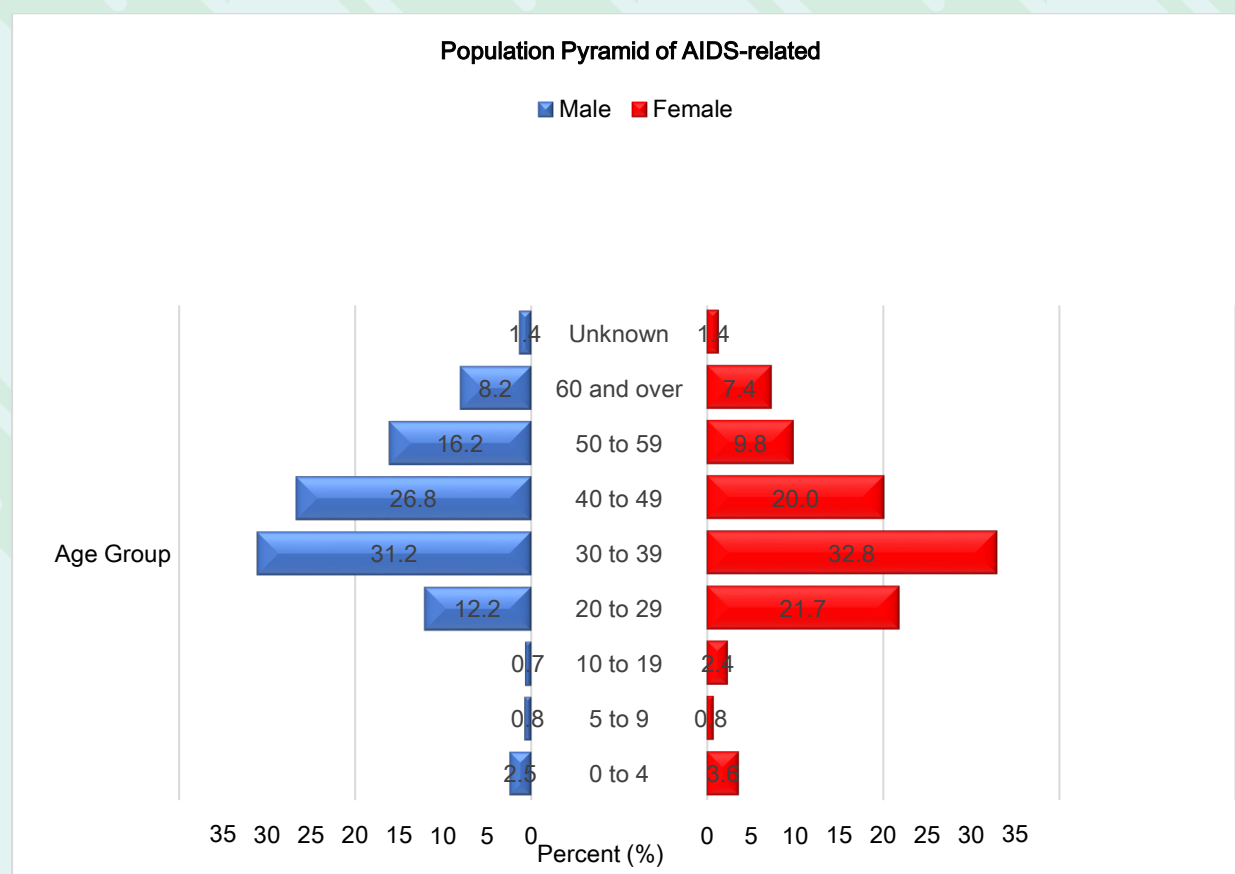
Figure 5: HIV Seroprevalence trend among ANC attendees who participated in the 1989 to 2017 sentinel survey



Source: National Epidemiology Unit, Ministry of Health

Of the total 36,553 cases reported since 1982, 10,127 of those cases have died, whether directly or indirectly from the disease. Males account for the greater number of PLHIV deaths across most age groups except notable differences in 10-19 and 20-29 year-old females as illustrated in Figure 4. Since the diagnosis of HIV/AIDS in 1982, the highest number of deaths have occurred among 30 to 39 year-olds for both males and females, 32% of the overall reported HIV/AIDS deaths.

Figure 6: HIV/AIDS related deaths by Sex and Current Age Group, Jamaica, (1982-2017)



Source: HIV/STI/Tb Unit, Ministry of Health

Tables 5 shows the HIV risk history among PLHIV disaggregated by sex. HIV is primarily transmitted through sexual intercourse in Jamaica. From the first diagnosed case of HIV in 1982, the cumulative predominant risk history associated with PLHIV males is having a history of STI and likewise for females. This is followed by sex with CSW for males and multiple partners for females. Approximately 11% of both men and women reported multiple sex partners as a risk behaviour. Almost four percent of men reported “ever in prison” as a risk history. Crack cocaine use was reported more in males (3.2%) than females (2.0%) and blood transfusions was more reported in females (3.6%) than in males (1.9%). The lowest reported risk history categories (less than 1%) for both males and females were: intravenous drug use, unprotected anal sex, victim of assault, sex with known PLHIV, transactional sex and perinatal exposure.

Table 5: HIV Risk History by Sex (1982-2017)
Source: HIV/STI/Tb Unit, Ministry of Health

Risk History	Male (%)	Female (%)
Blood transfusion	541 (1.9%)	825 (3.6%)
Crack/cocaine use	941 (3.2%)	459 (2.0%)
Intravenous drug use	128 (0.4%)	83 (0.4%)
Sex Transmitted Infection	10095 (34.7%)	9749 (43.0%)
Genital Ulcers/sores	3033 (10.4%)	2055 (9.1%)
Sex with CSW	4497 (15.5%)	0 (0.0%)
CSW	152 (0.5%)	680 (3.0%)
Unprotected anal sex	19 (0.1%)	0 (0.0%)
Multiple partners	3193 (11.0%)	2425 (10.7%)
Ever in prison	1066 (3.7%)	225 (1.0%)
Victim of assault	72 (0.2%)	213 (0.9%)
Sex with known PLHIV	13 (0.0%)	196 (0.9%)
Transactional sex	264 (0.9%)	193 (0.9%)
Perinatal exposure	0 (0.0%)	1 (0.0%)

Table 6 tabulates the behavioural practices of PLHIV disaggregated by sex. During the period 1982- 2017, of the total number of males reported with HIV, 5% (836) were identified as men who have sex with men and 4% (798) identified as bisexual. Almost all PLHIV women are heterosexual and less than 1% identified as bisexual.

Table 6: Behavioural practices of people living with HIV/AIDS in Jamaica by gender (1982-2017)
Source: HIV/STI/Tb Unit, Ministry of Health

Behavioural Practices	Male (%)	Female (%)
Heterosexual	9392 (51.54)	16595 (99.93)
Homosexual	863 (4.74)	0 (0.00)
Bisexual	798 (4.38)	2 (0.01)
Not stated	7170 (39.35)	10 (0.06)

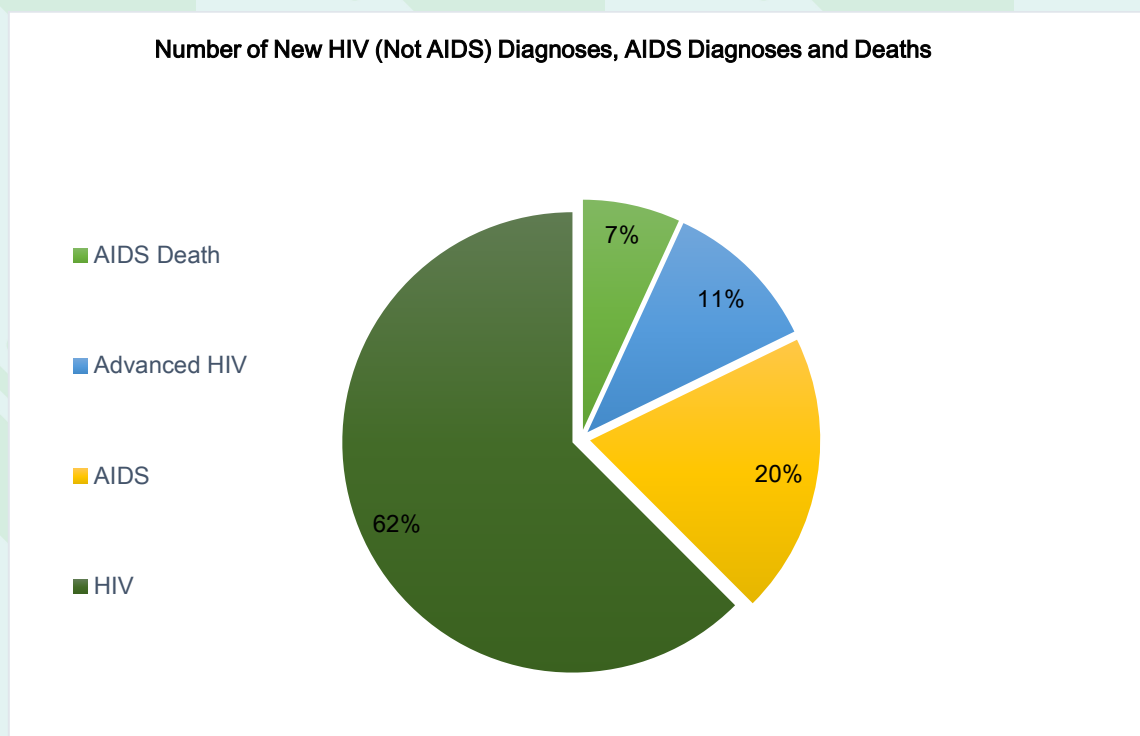
HIV IN KEY & VULNERABLE POPULATIONS

New HIV Diagnoses in 2017

There were 1197 new cases in 2017. The scope of testing has improved since 2016, where of the 1197 newly diagnosed in 2017 only 82 (6.8%) were notified to the National Epidemiology Unit for the first time as deaths.

Approximately eleven percent (or 131) of these had a CD4 between 200 and 350. This may be attributed to the scaled-up HIV testing and counselling through Provider Initiated Testing and Counselling (PITC), in order to facilitate early diagnosis. The scope of testing needs to be widened since of these new cases, 236 (20%) were notified to the National Epidemiology Unit for the first time as AIDS (Figure 7).

Figure 7: Number of New HIV diagnosis (not AIDS), AIDS diagnosis and AIDS deaths, Jamaica, 2017



Source: HIV/STI/Tb Unit, Ministry of Health

The national HIV/AIDS case rate for 2017 is 43.9 cases per 100,000 population. Table 7 and figure 8 present the rate of new HIV/AIDS cases in 2017 in Jamaica by parish of residence. The highest HIV/AIDS rates were among the most urbanized parishes: Kingston & St. Andrew –73 cases per 100,000 persons, and St. James –70 cases per 100,000 persons followed by

the rural parishes Westmoreland (50.8/100,000) and Trelawny (50.0/100,000). In comparison to the national rate, these parishes have higher HIV/AIDS case rates per population. Manchester had the lowest rate (13.0/100,000) for the year (Table 7 and Figure 8).

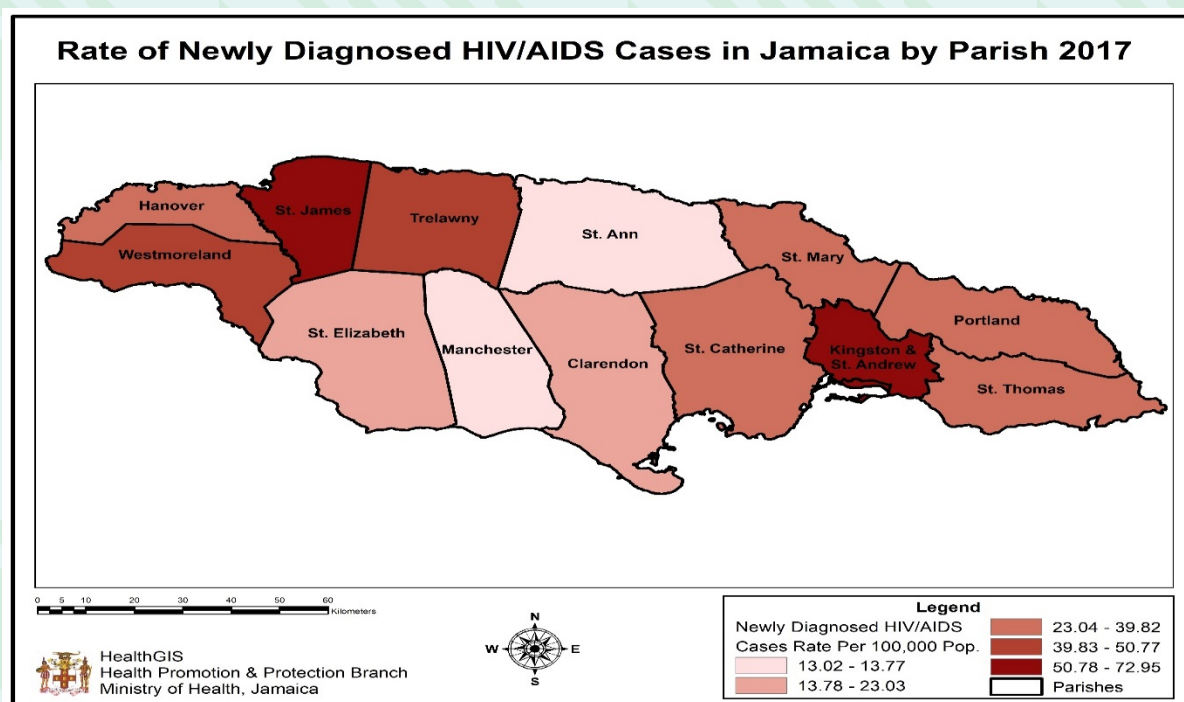
The death rate of PLHIV in 2017 was highest in Kingston and St Andrew (27.3), followed by St Catherine (8.6) and Trelawny (7.9) as seen in table 7. Portland and Clarendon both have the lowest death rate among PLHIV for 2017, which was 2.4 per 100,000 population.

Table 7: Persons newly diagnosed with HIV/AIDS by Parish of residence, Jamaica, 2017

Source: HIV/STI/Tb Unit, Ministry of Health; *Rate per 100,000 population Please note that of the 1197 – some of these cases were diagnosed at the stage of death (82 in 2017)

PARISH	Population 2017	New HIV/AIDS diagnoses 2017		AIDS deaths 2017	
		N	Rate*	N	Rate*
Kingston & St Andrew	670312	489	73.0	183	27.3
St Thomas	95015	32	33.7	3	3.2
Portland	82710	25	30.2	2	2.4
St Mary	114959	37	32.2	4	3.5
St Ann	174343	24	13.8	9	5.2
Trelawny	76043	38	50.0	6	7.9
St James	185846	130	70.0	8	4.3
Hanover	70322	28	39.8	3	4.3
Westmoreland	145746	74	50.8	7	4.8
St Elizabeth	151961	35	23.0	5	3.3
Manchester	192036	25	13.0	7	3.6
Clarendon	247902	57	23.0	6	2.4
St Catherine	521669	183	35.1	45	8.6
Parish Unknown		20		5	
	2728864	1197	43.9	293	10.7

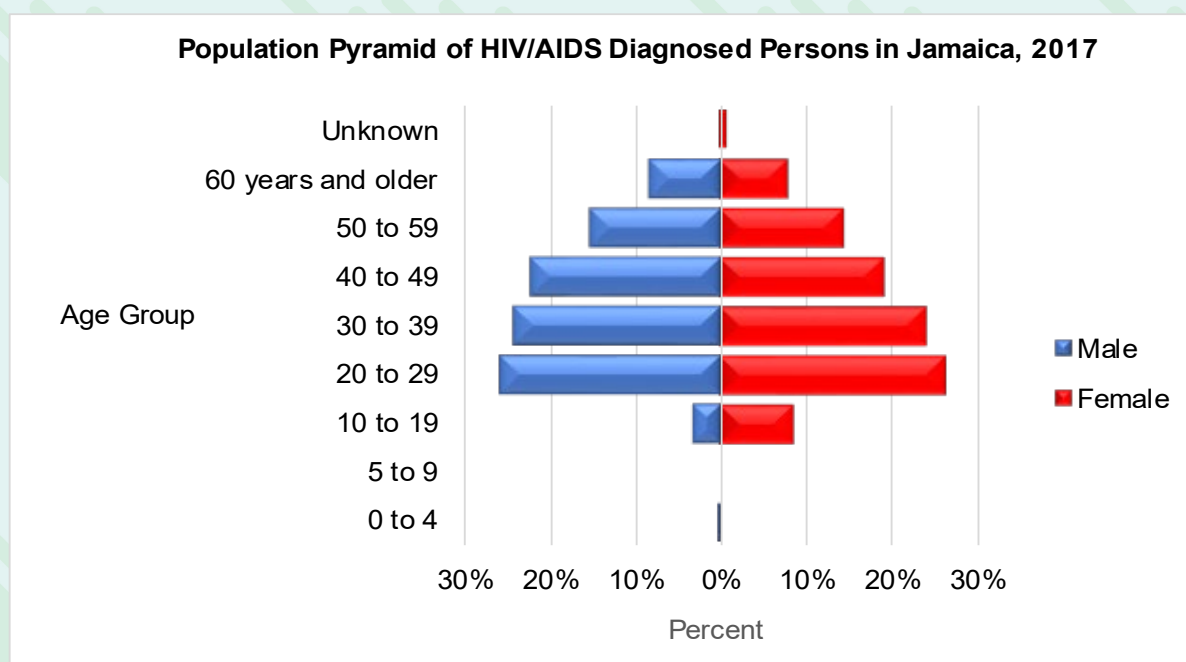
Figure 8: Rate of persons newly diagnosed with HIV/AIDS in Jamaica by Parish of residence, 2017



Source: National Epidemiology Unit, Ministry of Health

Figure 9 indicates, the number of new HIV, Advanced HIV and AIDS diagnosed for 2017 by sex and current age group. Of these, there were more males diagnosed across all age groups except 10 -19 year-olds. The age group 20 to 29 year olds represents the highest diagnosed cases for both male and female, 160 and 149 cases respectively. The decrease in condom use among persons in the 15-24 and 25-49 age groups as noted in the 2017 knowledge attitudes and behaviour survey may have contributed to the high level of diagnosed cases in the 20-29 age group.

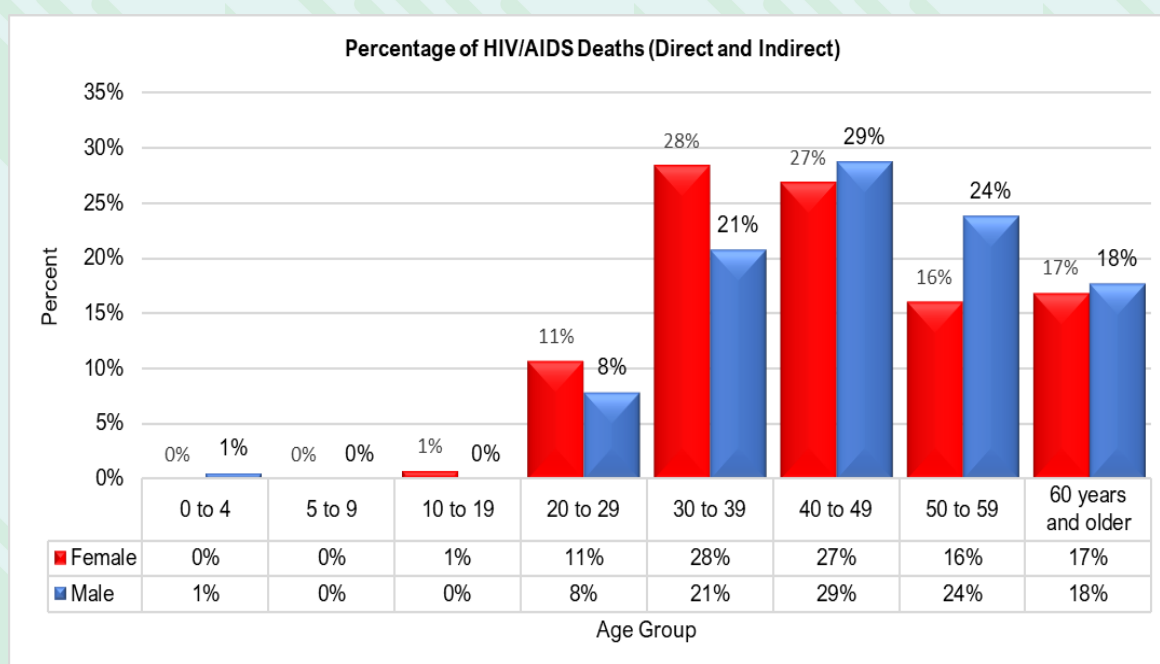
Figure 9: New HIV, advanced HIV and AIDS in Jamaica by sex and current age, 2017



Source: HIV/STI/Tb Unit, Ministry of Health

In spite of the highest number of diagnoses at ages 20-29 years old for both males and females, the most deaths (direct and indirect) occurred at ages 40-49 for males and 30-39 years for females. Deaths at 20-29 years are about the same for both sexes (Figure 10).

Figure 10: HIV/AIDS deaths (direct and indirect) by Sex and Current Age Group, Jamaica, 2017



Source: HIV/STI/Tb Unit, Ministry of Health

Table 8 shows the HIV risk history of new HIV diagnoses in 2017. The highest risk history among males was multiple partners and among females it was sexually transmitted infection. The top three risk history among males was, multiple partners (26.8%), STI (21.5%) and sex with CSW (15.8%). The three highest risk history among females are, STI (41.2%), multiple partners (22.9%) and victim of assault (7.2%). Similar to the cumulative risk history profile, intravenous drug use and perinatal exposure remain below one percent for both males and females.

In 2017, the sexual practice trend is similar to the cumulative 1982-2017 pattern with the top sexual practice being heterosexuality, then homosexuality and bisexuality (Table 9). However, in 2017 the data shows that reporting of homosexual practice among men increased. This may be attributed to improved data collection and quality including collection of risk factor information.

Table 8: Risk behaviour of newly diagnosed HIV cases in Jamaica by gender, 2017
Source: HIV/STI/Tb Unit, Ministry of Health

Risk Behaviour	Male (%)	Female (%)
Blood transfusion	2 (0.9%)	5 (3.3%)
Crack/cocaine use	3 (1.3%)	1 (0.7%)
Intravenous drug use	2 (0.9%)	1 (0.7%)
Sex Transmitted Infection	49 (21.5%)	63 (41.2%)
Genital Ulcers/sores	7 (3.1%)	7 (4.6%)
Sex with CSW	36 (15.8%)	1 (0.7%)
CSW	2 (0.9%)	6 (3.9%)
Unprotected anal sex	16 (7.0%)	0 (0.0%)
Multiple partners	61 (26.8%)	35 (22.9%)
Ever in prison	10 (4.4%)	2 (1.3%)
Victim of assault	7 (3.1%)	11 (7.2%)
Sex with known PLHIV	13 (5.7%)	10 (6.5%)
Transactional sex	17 (7.5%)	9 (5.9%)
Perinatal exposure	0 (0.0%)	1 (0.7%)

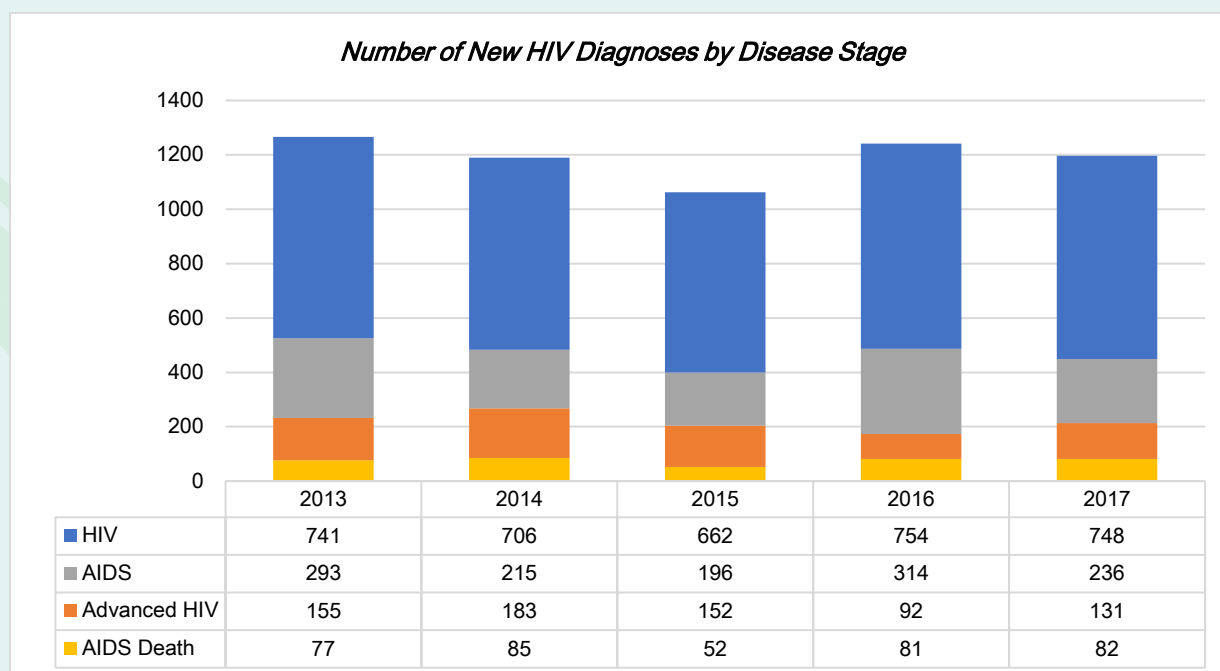
Table 9: Sexual practices of newly diagnosed HIV cases in Jamaica by gender, 2017

Source: HIV/STI/Tb Unit, Ministry of Health

Sexual Practices	Male (%)	Female (%)
Heterosexual	335 (54.29)	565 (98.09)
Homosexual	82 (13.29)	0 (0.00)
Bisexual	38 (6.16)	1 (0.17)

Figure 11 represents a trend for new HIV diagnoses by disease stage for a 5-year period. There has not been a remarkable decrease in diagnosis at the advanced HIV stage from the base year 2013 to 2017. There have been slow, steady fluctuations in the diagnosis at death. Of note, 2015 had the lowest percentage of new diagnoses classified as AIDS and AIDS deaths. The year 2016 had the highest percentage of new diagnoses classified as AIDS. Compared to previous years, 2017 had one of the more cases diagnosed at the HIV stage, however the year also saw seven percent of cases newly classified at death.

Figure 11: New HIV diagnoses by Disease Stage, Jamaica, 2013–2017



Source: HIV/STI/Tb Unit, Ministry of Health

HIV in Key and Vulnerable Populations

Jamaica has features of both a generalized and concentrated HIV epidemic. The prevalence in the general population is estimated at 1.8%, however surveys (MSM, 2011 [33%] and FSW, 2017 [2%]) show higher HIV prevalence in at-risk groups. The main risk groups that have been identified in Jamaica are men who have sex with men, female sex worker, transgender people, adolescents, prisoners, persons with disabilities, women and STI clinic attendees.

Key Population

Men who have sex with men (MSM) accounted for the highest proportion of a diagnosis of HIV among the key populations (95% of KP). This KP also accounts for the highest percentage of new advanced HIV and new AIDS diagnoses (Table 10).

Table 10: Key population newly diagnosed with HIV (not AIDS), AIDS, and living with HIV and/or AIDS
Source: HIV/STI/Tb Unit, Ministry of Health

Key Populations and Vulnerable Groups	New HIV diagnoses (not AIDS)	New Advanced HIV diagnoses	New AIDS diagnoses
MSM/Bisexual men	84	18	16
Female Sex Worker	5	1	0
Prisoners	Twelve (12) diagnosed classification is currently unknown		
Transgender	Five (5) diagnosed classification is currently unknown		
Homeless	None reported for 2017		

Tables 11 and 12 characterise new HIV and AIDS diagnoses among key populations for 2017. The young MSM population account for the highest HIV diagnosis (15-24 years =58 and 25-29 years = 29). The MSM population had the youngest age group of all the key populations. Female sex workers, prisoners, and transgender persons had no 15-24 year olds diagnosed for the year 2017. Data related to the homeless population were unavailable.

Table 11: Key populations newly diagnosed with HIV and AIDS by age, 2017

Source: HIV/STI/Tb Unit, Ministry of Health

Key populations and vulnerable groups	15-24	25-29	30-34	35-39	40-44	45+
MSM/Bisexual men	58	29	16	8	3	6
Female Sex Worker	0	1	1	1	2	1
Prisoners	0	2	3	3	1	3
Transgender	0	3	2	0	0	0
Homeless	None reported for 2017					

Kingston & St. Andrew (KSA) have the highest number of newly diagnosed HIV and AIDS among key populations recorded for the year 2017. This could be related to the fact that KSA has the largest population in the island (Table 12).

Table 12: Key populations newly diagnosed with HIV and AIDS by parish, 2017

Source: HIV/STI/Tb Unit, Ministry of Health

Key population	KSA	STT	POR	STM	STA	TRE	STJ	HAN	WES	STE	MAN	CLA	STC	UNK
MSM/Bisexual men	59	5	2	2	2	2	6	3	3	2	1	4	27	2
Female Sex Worker	4	0	0	0	0	0	1	1	0	0	0	0	2	0
Prisoners	5	0	0	0	0	0	1	0	1	0	2	1	2	0
Transgender	0	0	0	0	0	2	0	0	0	0	0	0	3	0
Homeless	None reported for 2017													

Vulnerable Population

Table 13 show the age categories and parish of residence, respectively, for new HIV and AIDS diagnoses among vulnerable populations for 2017. Women 45 years and over account for the highest number of newly diagnosed with HIV and AIDS for 2017 (n=177) followed by the adolescents (15-24 age group).

Table 13: Vulnerable populations newly diagnosed with HIV and AIDS by age, 2017**Source:** HIV/STI/Tb Unit, Ministry of Health

Key populations and vulnerable groups	15-24	25-29	30-34	35-39	40-44	45+
Adolescents (15-24 years)	67	0	0	0	0	0
Persons with disabilities	No data available					
Women	130	66	76	61	59	177
STI clinic attendees	15	10	11	9	11	23

Kingston & St. Andrew (KSA) have the highest number of newly diagnosed HIV and AIDS among vulnerable populations recorded for the year 2017 (Table 14). The four parishes that constitute the Western Region have the next highest number of vulnerable population, these parishes are tourism heavy spots and this might contribute to the high burden of vulnerable population acquiring HIV in 2017.

Table 14: Vulnerable populations newly diagnosed with HIV and AIDS by parish, 2017**Source:** HIV/STI/Tb Unit, Ministry of Health

Key populations and vulnerable groups	KSA	STT	POR	STM	STA	TRE	STJ	HAN	WES	STE	MAN	CLA	STC	UNK
Adolescents (15-24 years)	22	1	0	4	0	4	6	5	7	2	2	4	10	0
Persons with disabilities	No data available													
Women	223	16	11	21	13	19	67	14	30	15	15	34	90	8
STI clinic attendees	23	6	3	0	0	1	11	1	5	3	3	15	11	0

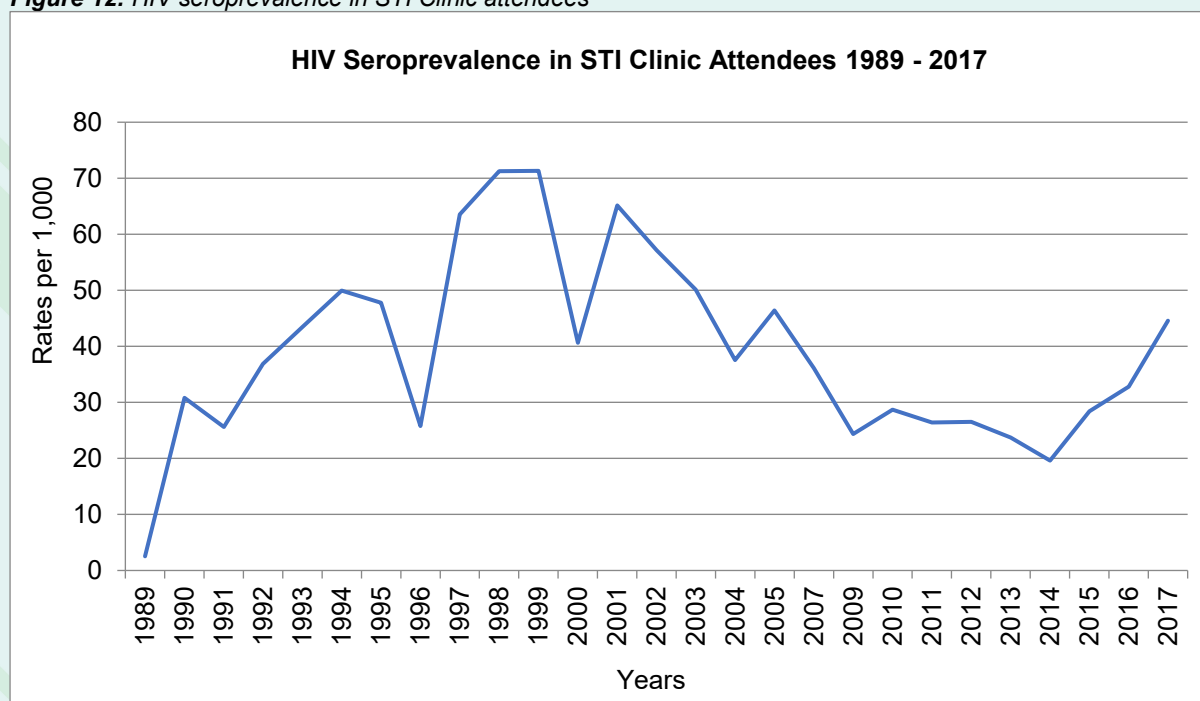
Data from surveillance of STI clinic attendees in 2017 indicated that for every 1,000 persons with a sexually transmitted infection, approximately 46 were infected with HIV (Table 15). Further, 62% of STI attendees tested in the sentinel surveillance were females – 3.0% of these females tested positive for HIV compared to 7.3% of male STI attendees.

Table 15: HIV prevalence among STI clinic attendees who participated in the 2017 sentinel survey
Source: National Epidemiology Unit, Ministry of Health

PARISH	Total Tested	Total Positive	% Positive	(95% CI) Exact
Kingston & St Andrew	1,224	76	6.21	4.92 – 7.71
St Catherine	307	8	2.61	1.13 – 5.07
St Ann	181	3	1.66	0.34 – 4.77
Clarendon	82	1	1.22	0.03 – 6.61
St James	275	7	2.55	1.03 – 5.17
Westmoreland	34	2	5.88	0.72-19.68
Total	2,103	97	4.61	3.76 – 5.60

Figure 12 illustrates trends in HIV seropositive prevalence in STI Clinic attendees over the past 29 years. From the graph below it can be noted that the HIV seropositive prevalence in STI clinic attendees trended downwards down-wards from 2001 to 2014. In the past three years, however, the HIV sero-prevalence in this group has been trending up (Figure 12).

Figure 12: HIV seroprevalence in STI Clinic attendees



Source: National Epidemiology Unit, Ministry of Health

Public Health Conclusions

The changing epidemiology of HIV infections observed over the last decade suggests that some progress has been achieved, particularly with regard to reducing infections. However, these epidemiological trends also indicate that it is crucial to sustain, and in some places strengthen evidence-based HIV prevention interventions tailored to the local epidemiological context and targeting those most at risk, including more frequent testing for those at-risk of HIV infection, immediate offer of antiretroviral therapy for those found positive. The scope of HIV testing has improved, diagnoses will be more widespread, allowing for greater impact with the test and treat initiative which commenced in January 2017. Greater access to ART can also be a major contributor to overall viral suppression if followed along the HIV continuum of care.

Programmes on the prevention and control of HIV infection adapted to key populations and youth are of utmost importance. It is critical that services for prevention and HIV testing, are combined with policies that facilitate, promote and ensure linkage and access to care throughout the island.

References

Ministry of Health, Jamaica (2012). Guidelines for HIV Case-based Surveillance. Kingston, Jamaica: Ministry of Health, Jamaica.

Ministry of Agriculture, Jamaica (2013). Public Health Act. Retrieved on October 29, 2018 from:

[http://www.moa.gov.jm/VetServices/data/Acts%20and%20Regulations%20of%20Jamaica%20re%20Food%20safety/Public%20%20Health%20Act%20\(Meat%20Inspection\).pdf](http://www.moa.gov.jm/VetServices/data/Acts%20and%20Regulations%20of%20Jamaica%20re%20Food%20safety/Public%20%20Health%20Act%20(Meat%20Inspection).pdf)

Statistical Institute of Jamaica (2018). Demographic Statistics Report 2017. Retrieved on October 29, 2018 from <http://statinja.gov.jm/PublicationReleases.aspx>

Statistical Institute of Jamaica (1999). Demographic Statistics 1998. Kingston, Jamaica: The Statistical Institute of Jamaica.

Statistical Institute of Jamaica (2008). Demographic Statistics 2007. Kingston, Jamaica: The Statistical Institute of Jamaica.

United Nations (2018). Basic Facts, Jamaica. Retrieved on October 29, 2018 from <https://www.un.int/jamaica/jamaica/basic-facts>

UNAIDS (Spectrum) (2018). National HIV estimates file. Retrieved from

Ministry of Health, Jamaica and Hope Caribbean Co. Ltd. (2018). 2017 HIV/AIDS Knowledge Attitudes and Behaviour Survey, Jamaica.

Additional Facts and Figures

Summary of HIV Cases diagnosed by Year and Sex, Jamaica, 1982 - 2017

Year	Male (%)		Female (%)		Unknown (%)		Total
1982-1996	2770	62.7%	1613	36.5%	37	0.8%	4420
1997	698	60.9%	447	39.0%	2	0.2%	1147
1998	652	58.6%	460	41.3%	1	0.1%	1113
1999	831	56.0%	651	43.9%	2	0.1%	1484
2000	853	54.4%	714	45.6%	0	0.0%	1567
2001	795	50.0%	791	49.7%	5	0.3%	1591
2002	729	51.7%	681	48.3%	1	0.1%	1411
2003	844	50.1%	838	49.8%	1	0.1%	1683
2004	865	45.8%	1023	54.2%	0	0.0%	1888
2005	896	45.7%	1063	54.3%	0	0.0%	1959
2006	994	48.3%	1063	51.7%	1	0.0%	2058
2007	823	48.4%	879	51.6%	0	0.0%	1702
2008	944	47.5%	1040	52.4%	2	0.1%	1986
2009	798	48.2%	859	51.8%	0	0.0%	1657
2010	849	52.1%	782	47.9%	0	0.0%	1631
2011	823	49.2%	850	50.8%	0	0.0%	1673
2012	835	51.3%	793	48.7%	0	0.0%	1628
2013	680	53.7%	586	46.3%	0	0.0%	1266
2014	585	49.2%	604	50.8%	0	0.0%	1189
2015	543	51.1%	519	48.9%	0	0.0%	1062
2016	661	53.3%	580	46.7%	0	0.0%	1241
2017	621	51.9%	576	48.1%	0	0.0%	1197
Total	19089	52.2%	17412	47.6%	52	0.1%	36553

Source: HIV/STI/Tb Unit, Ministry of Health

Summary of AIDS Deaths, Jamaica, 1982 – 2017

Year	Male	Female	Total
1982-1996	768	428	1288
1997	248	145	375
1998	233	142	442
1999	341	207	538
2000	359	257	557
2001	329	258	616
2002	402	285	696
2003	380	269	677
2004	378	285	700
2005	306	203	548
2006	263	168	513
2007	202	117	293
2008	236	164	429
2009	234	143	390
2010	198	135	397
2011	234	158	342
2012	155	101	282
2013	169	129	159
2014	121	96	196
2015	136	118	136
2016	185	133	260
2017	170	139	293
Total	6047	4080	10127

Source: HIV/STI/Tb Unit, Ministry of Health

Summary of AIDS Death by Parish, Jamaica, 1982 – 2017

Parish	2017	1982 - 2017
Kingston & St Andrew	183	3850
St Thomas	3	124
Portland	2	215
St Mary	4	375
St Ann	9	449
Trelawny	6	310
St James	8	1622
Hanover	3	307
Westmoreland	7	673
St Elizabeth	5	286
Manchester	7	341
Clarendon	6	284
St Catherine	45	1265
Parish Unknown	5	19
Overseas address	0	7
Total	293	10127

Source: HIV/STI/Tb Unit, Ministry of Health

