



HIV/AIDS in Arizona Annual Report 2021

**HIV Surveillance Program
Office of Disease Integration Services**

Analysis Completed July 2021



**ARIZONA DEPARTMENT
OF HEALTH SERVICES**

TABLE OF CONTENTS

Executive Summary	2
Statewide Overview.....	4
COVID-19 Impact	5
Incidence Trend Analysis.....	6
Hispanic Population	9
Incarcerated Population.....	11
Care Continuum.....	13
Death Trend Analysis	14
Acknowledgements	16
Appendix 1: Statewide Demographics	17
Appendix 2: County Data Tables	25
References.....	33

EXECUTIVE SUMMARY

Background

The HIV Surveillance Program at Arizona Department of Health Services, in conjunction with local health departments, collects and analyzes data to assess the burden of HIV/AIDS throughout the state. Active and passive surveillance are used to monitor trends in new and existing cases of HIV/AIDS. The majority of new HIV/AIDS cases are identified through passive surveillance, which involves health care providers and/or laboratories reporting lab results related to HIV/AIDS to the HIV Surveillance Program. Less often, local health departments may employ active surveillance by soliciting information from health care providers and/or laboratories to confirm new diagnoses or ensure that a person living with HIV/AIDS (PLWH) is receiving health care.

Surveillance data are used by a variety of stakeholders, from the Centers for Disease Control and Prevention (CDC) to local community partners. Furthermore, these data may help inform HIV prevention strategies, identify areas and populations in need of HIV care and services, and provide situational awareness about the status of HIV/AIDS in Arizona compared to other jurisdictions.

This report provides an overview of HIV/AIDS surveillance data for 2020, including a statewide analysis as well as analyses for individual counties. Throughout the report, rates are calculated to describe the burden of HIV/AIDS relative to population size—all rates are calculated per 100,000 people. Race/ethnicity includes six categories: white, black, Hispanic, American Indian/Alaska Native (AI/AN), Asian/Pacific Islander/Native Hawaiian (A/PI/NH), and multi-race/other/unknown. Risk categories include men who have sex with men (MSM), injection drug use (IDU), men who have sex with men and injection drug use (MSM/IDU), high-risk heterosexual contact (HRH), no indicated risk/no risk reported (NIR/NRR), and Perinatal/Transfusion/Other.

HIV Care continuum

The HIV care continuum consists of various milestones that an individual may reach from the time they receive an HIV diagnosis to achieving viral suppression. Appropriate use of Highly Active Antiretroviral Therapy (HAART) allows PLWH to achieve and maintain an undetectable viral load. Maintaining an undetectable viral load also prevents transmission of HIV through sexual contact. Therefore, it has become a national priority to ensure that individuals are aware of their HIV status, linked to HIV care, and receiving adequate treatment for HIV such that it is possible to achieve and maintain an undetectable viral load.

In this report, a diagnosis-based HIV care continuum was used, and each step of the continuum (described below) is a percentage of the number of PLWH in Arizona at the end of 2020 who received a diagnosis prior to the end of 2019. Individuals who did not have a documented lab in the last 15 years were excluded from the denominator. An individual is considered linked to care if they received lab test (i.e. viral load, CD4) within 30 days of their diagnosis. Linkage to care is a measure that cannot be compared to other outcomes in the HIV care continuum, because the denominator includes only individuals who were diagnosed with HIV/AIDS in 2020.

HIV-Diagnosed: Individuals who were diagnosed with HIV/AIDS before the end of 2019.

Receipt of Care: PLWH who received one or more lab test (i.e. viral load, CD4, or HIV genotype) in 2020.

Retained in Care: PLWH who received two or more lab tests (i.e. viral load, CD4, or HIV genotype) that were at least 90 days apart in 2020.

Viral Suppression: PLWH whose last viral load test result in 2020 was less than or equal to 200 copies/mL.

HIV/AIDS in Arizona

In 2020, **18,975 people were living with HIV/AIDS in Arizona. There were 696 new (incident) cases of HIV/AIDS**, and the **HIV/AIDS incidence rate was 9.6 cases per 100,000**. In comparison, there were 776 incident cases of HIV/AIDS and an incident rate of 10.7 cases per 100,000 in 2019. HIV/AIDS incidence differs based on factors such as geographic location, sex, age, race/ethnicity, and reported risk behavior. By county, 497 (71.4%) incident cases resided in Maricopa County, and Santa Cruz County had the highest HIV/AIDS incidence rate (15.1 per 100,000). The incidence rate was 16.7 per 100,000 for males compared to 2.5 per 100,000 for females. By age, the groups with the highest HIV/AIDS incidence rates were ages 25-29 (26.6 cases per 100,000) and 30-34 (26.6 cases per 100,000).

For race/ethnicity, 525 (75.4%) incident cases identified as white or Hispanic. While fewer newly diagnosed individuals identified as black, the incidence rate of HIV/AIDS in black individuals was the highest at 27.8 per 100,000. Men who have sex with men (MSM) was the most commonly reported risk behavior, with 377 (54.2%) incident cases reporting MSM.

Since the introduction of HAART, PLWH who take HIV medicine as prescribed can live longer and healthier lives. As a result, the number of deaths related to HIV/AIDS has decreased. In 2020, **272 deaths occurred among known PLWH in Arizona.**

Using the HIV Care Continuum described above, 80.7% of people in Arizona who were diagnosed with HIV/AIDS in 2020 were linked to care. Of the 16,602 PLWH in Arizona in 2020, 77.2% demonstrated receipt of care, 55.6% were retained in HIV care, and 68.7% were virally suppressed.

For further information, please visit our website and explore the HIV/AIDS data dashboard at: <https://www.azdhs.gov/preparedness/epidemiology-disease-control/disease-integration-services/index.php#hiv-epidemiology-home>

STATEWIDE OVERVIEW

2020 SUMMARY

ARIZONA POPULATION: 7,278,717

HIV/AIDS INCIDENCE: 696

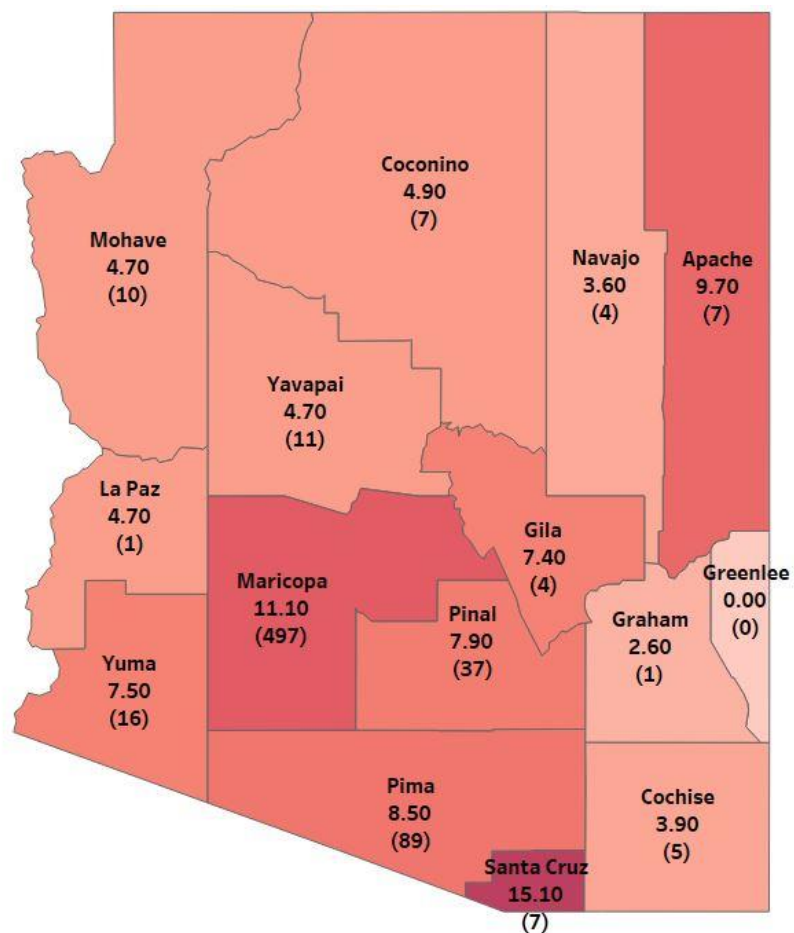
HIV/AIDS INCIDENCE RATE: 9.6 PER 100,000

HIV/AIDS PREVALENCE: 18,975

HIV/AIDS PREVALENCE RATE: 260.7 PER 100,000

HIV/AIDS-RELATED DEATHS: 272

Figure 1: Arizona HIV/AIDS Incidence Rate and (count) by County, 2020.

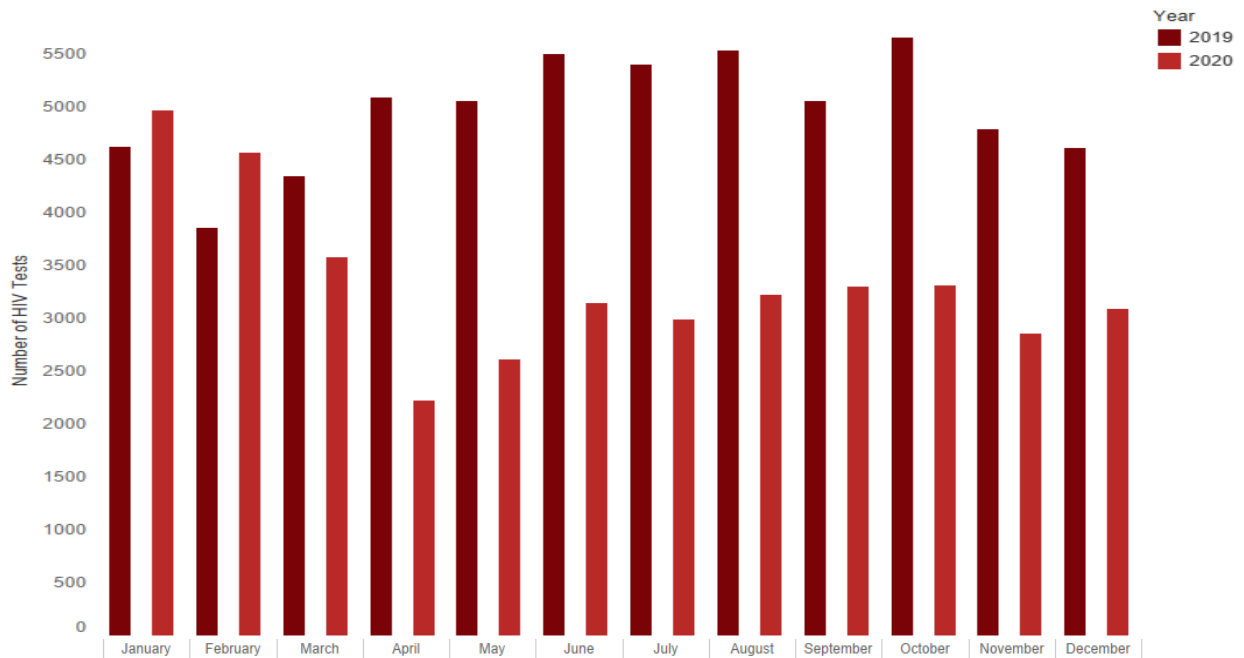


COVID-19 IMPACT ON HIV TESTING

2019 VS 2020

The number of new HIV diagnoses in 2020 was likely impacted by the COVID-19 pandemic. After the first case of COVID-19 was reported in Arizona on January 22, 2020, many HIV-related services were disrupted or halted entirely. These services included HIV testing and outreach, partner services, and linkage to care. Notably, there was a 33% decrease in publicly-funded HIV testing in 2020 (39,813 tests) compared to 2019 (59,468 tests). Therefore, the reduction in new HIV diagnoses in 2020 may reflect decreased access to services like testing rather than represent a true decrease in the number of incident cases. Data from the HIV Prevention Program at ADHS shows that traditional testing decreased at funded sites in Maricopa County by 28%, while the demand for home-test kits increased by 44%. While initial testing lagged significantly throughout the pandemic, the volumes of viral load and CD4 tests reported to ADHS were more consistent with expectations based on previous years. This might suggest that COVID-19 was a barrier for individuals seeking initial testing, but had less of an impact on PLWH that were already established in care.

Figure 2: Number of HIV Tests in Arizona by Month and Year.



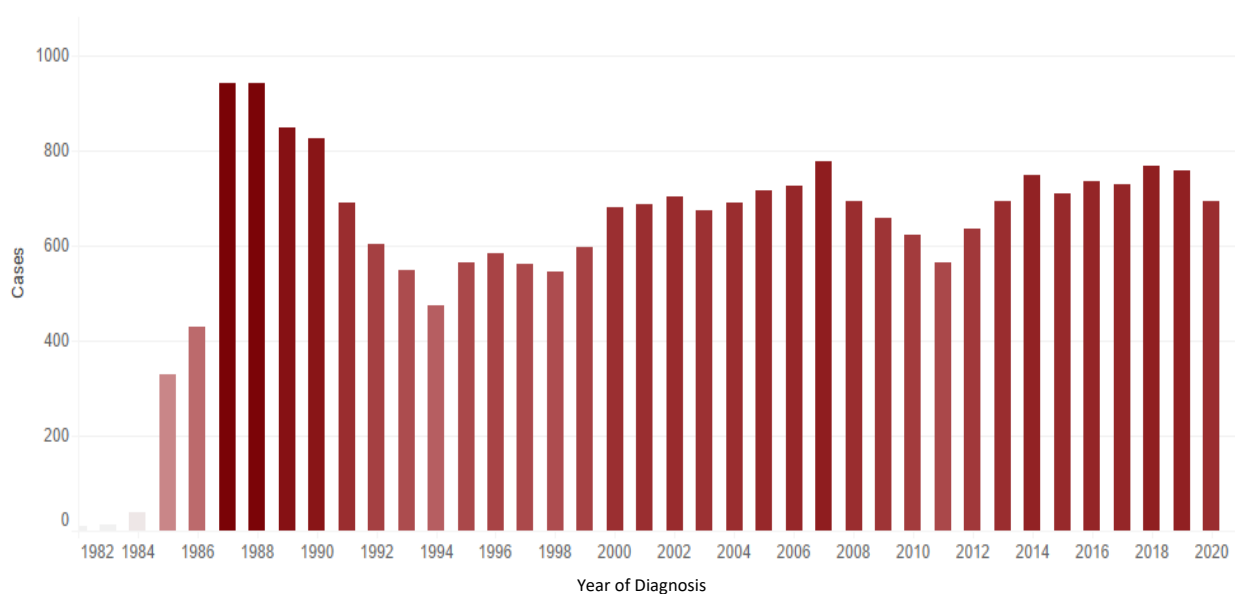
*Home-test kit data not included in graph above.

INCIDENCE TREND ANALYSIS

1982 - 2020

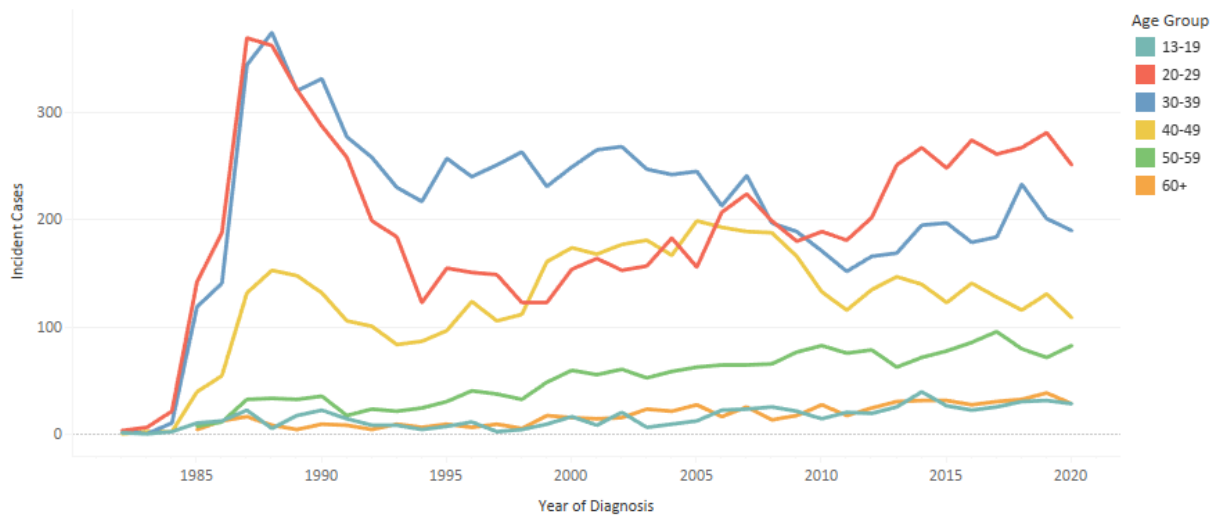
First identified in the early 1980s, HIV/AIDS quickly became a leading cause of death among adults in the United States¹. The HIV epidemic reached its peak in Arizona by 1988 with 940 new infections. At this point in time, zidovudine (AZT) was approved as the first antiretroviral drug to treat HIV/AIDS. Following its introduction to the market, we observed an immediate decline in HIV incidence, which fell to 464 new infections by 1994, a 49% decrease in the span of 6 years. Subsequently, we noticed a steady increase emerging from 1994 to 2007 where we saw the highest number of new infections (769), since the development of HAART in 1995. From 2008 to 2011, we detected a decline in incident cases which reached a low of 564 new infections in 2011. Over the last ten years of the epidemic (2011 to 2020), we have recorded on average, 699 incident cases per year.

Figure 3: Number of HIV incident cases among persons ≥ 13 years, Arizona from 1982 to 2020.



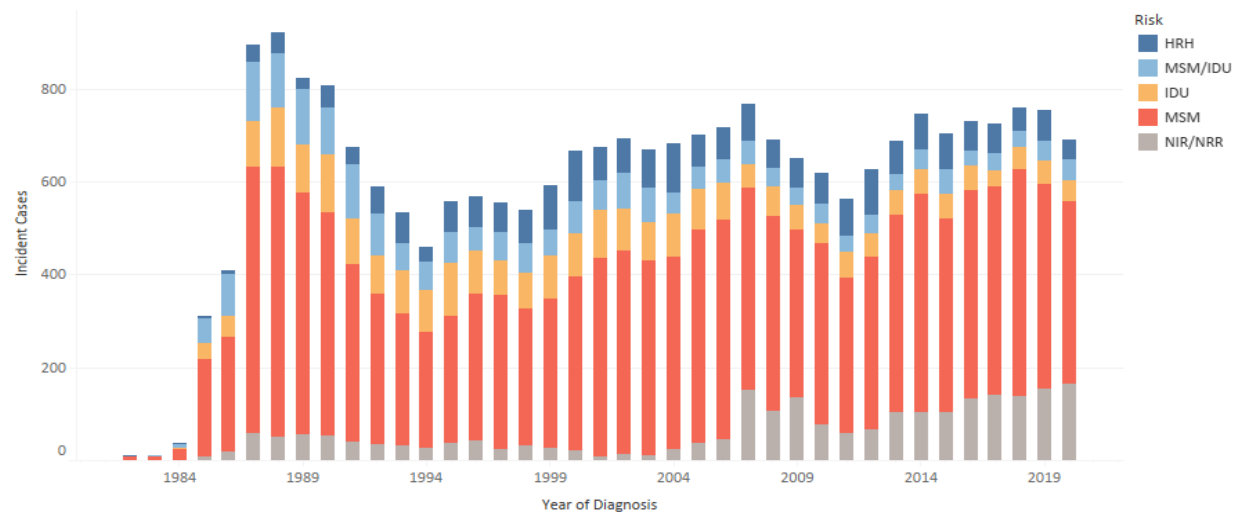
Since the height of the epidemic in 1988, when we saw the highest rates of HIV infection across the country, Arizona has observed a 16% decrease in incidence (691) by 2020. With the advent of biomedical prevention and intervention tools such as Pre-Exposure Prophylaxis (PrEP) and Treatment as Prevention (TasP), supplemented by campaigns like Undetectable equals Untransmittable (U=U), it is possible to disrupt the community spread of HIV and further reduce HIV incidence in Arizona.

Figure 4: Number of HIV incident cases among persons ≥13 years by age group, Arizona 1982 to 2020.



At the peak of the epidemic in 1988, persons aged 20-39 years were at highest risk of acquiring a new HIV infection. This group accounted for 64% of reported incident cases in 2020.

Figure 5: Number of HIV incident cases among persons ≥13 years by risk, Arizona 1982 to 2020.



The primary HIV transmission risk category throughout the epidemic has been Men who have Sex with Men (MSM). This group represented 57% of new infections in 2020.

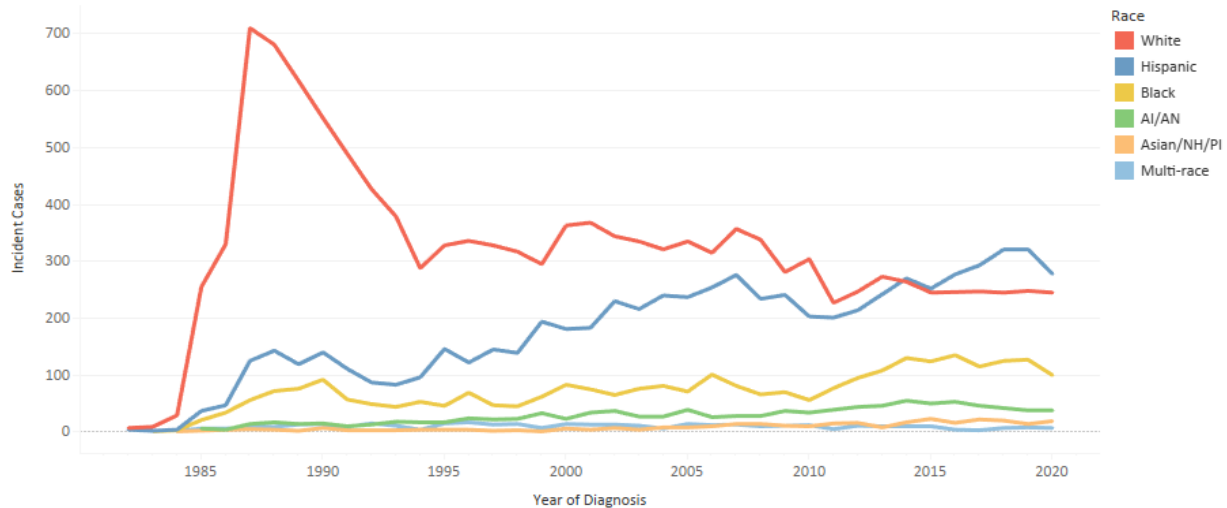
Cases by Risk

HIV incidence reported among MSM overall decreased by 33% from its peak in cases (583) in 1988 to 392 in 2020. However, Black and Hispanic MSM have experienced a 66% increase in new infections from 77 in 1995, the year HAART was introduced, to 225 in 2020. We observed the highest incidence (302) in Black and Hispanic MSM in 2018. New infections among Hispanic individuals surpassed that of White individuals in 2014, and have maintained a higher case count through 2020. From years 2000 to 2020, the AI/AN population has encountered a 49% increase in new HIV infections. Though more recently, in the last five years (2016-2020) there has been a 39% decline in new infections in the same population. Comparatively, White men have experienced a 52% decrease in cases from 320 in 2000 to 210 in 2020 and a 2% decrease in the last 5 years as they continue on a downward trend.

Females

At the peak of the epidemic, females comprised 8% of new HIV infections in Arizona in 1988 and 50% of those cases identified IDU as route of transmission. In 2020, females made up 13% of new infections and 16% of those cases reported IDU. New infections among Black women grew from 16 cases in 2010 to 27 cases in 2020, a 41% increase in ten years. In the same period of time, Hispanic women had a 44% increase in new infections, while White women saw a 20% increase. Overall, these three female populations continue to experience a rise in new infections year after year. Conversely, AI/AN females have had a 73% decrease in new infections from 11 in 2010 to 5 in 2019 with an average of 8 cases per year. Most new female infections occurred in women of child bearing age, which is concerning when coupled with the thought of potential sexually transmitted co-infections.

Figure 6: Number of HIV incident cases among persons ≥13 years by race, Arizona 1982 to 2020.

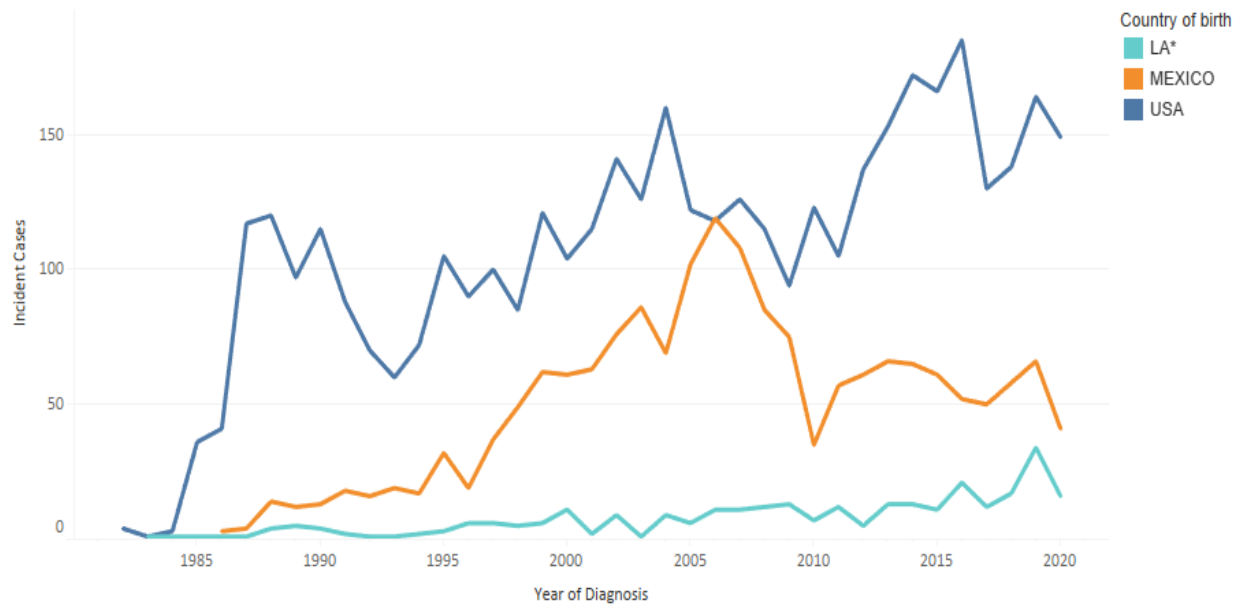


In 1988, 74% of new HIV infections were comprised of White individuals. This population has had a 64% decrease in HIV incidence from 1988 to 2020 whereas Hispanic individuals have had a 49% increase in new infections during the same time period.

HISPANIC POPULATION

In 2020, Hispanic persons accounted for 32% of Arizona’s population and 40% of all incident HIV/AIDS cases reported in the state. The proportion of new HIV/AIDS cases in the Hispanic population has steadily increased from 16% in 1991 to 40% in 2020, as previously mentioned. In the same twenty-year period the HIV/AIDS incidence rate (per 100,000) for the same population has declined from 15.9 to 12.1 as population growth has continued to rise in Arizona.

Figure 7: US Born Compared to Foreign Born, Arizona 1982 to 2020.



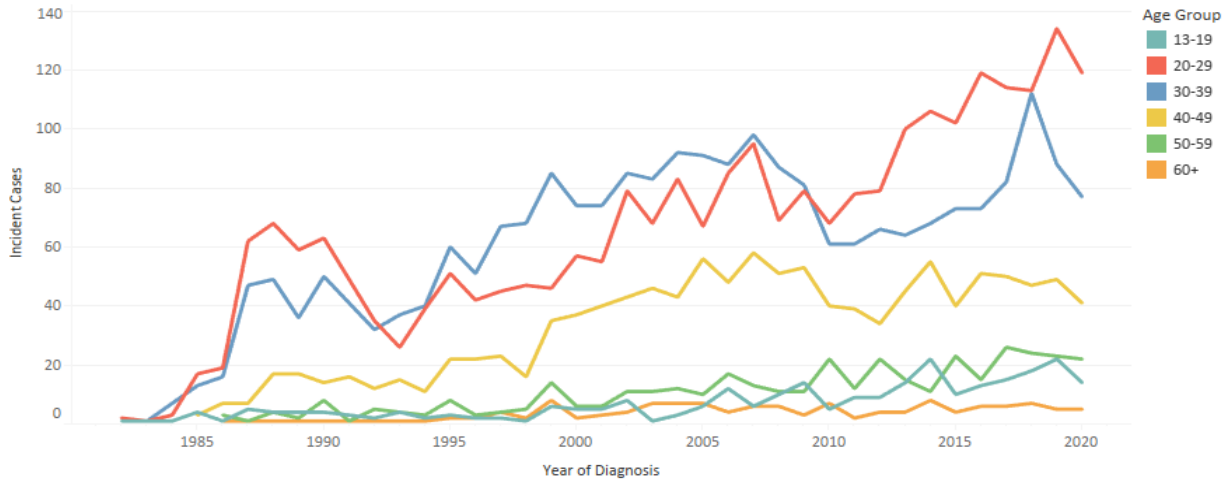
* LA includes Bolivia, Colombia, Cuba, Ecuador, Guatemala, Honduras, Nicaragua, Peru, El Salvador, Uruguay, and Venezuela.

The percent of incident HIV/AIDS cases in Hispanic individuals that were born in the U.S has decreased from a high of 87% in 1990, to 72% in 2020. Of the 2020 Hispanic incident HIV/AIDS cases that had complete data for the individual’s country of birth, roughly 72% were born in the United States, 20% were born in Mexico and the remaining 8% were born in other countries outside of the U.S.

Cases by Sex at Birth and Age

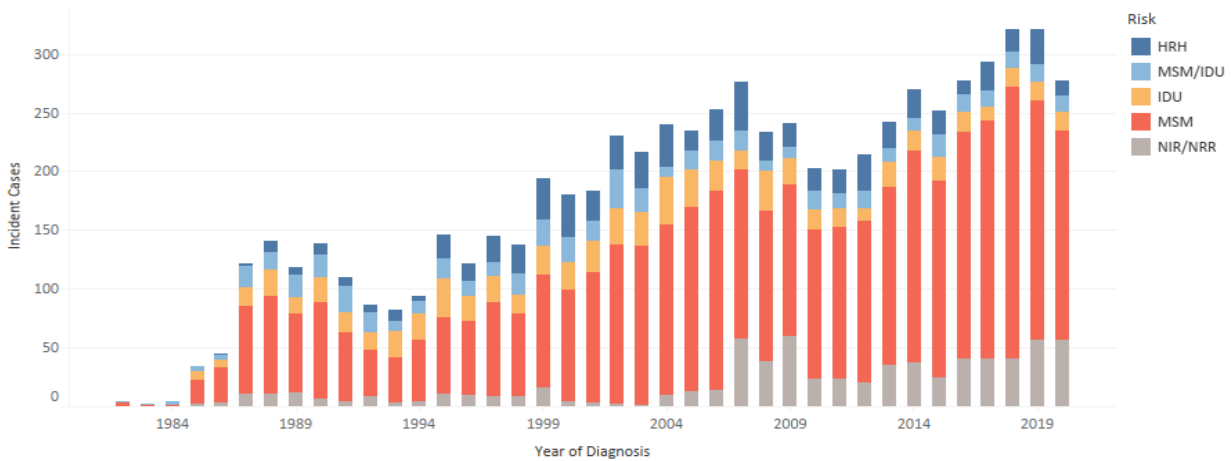
In 2020, over 90% of newly diagnosed HIV/AIDS cases in the Hispanic population in Arizona occurred in individuals born male. For comparison, the statewide proportion of new cases in Arizona that occurred in individuals born male was 87%. Individuals aged 20-29 years accounted for 42% of all incident Hispanic HIV/AIDS cases in Arizona in 2020. Of the 118 cases reported in this age category, approximately 71% recorded MSM as a risk factor.

Figure 8: Number of HIV incident cases among Hispanic persons ≥13 years by age group, Arizona 1982 to 2020.



From 1994 to 2009, Hispanic individuals aged 30-39 years were at highest risk for a new HIV infection, however, ages 20-29 years have been at highest risk from 2010 to 2020.

Figure 9: Number of HIV incident cases among Hispanic persons ≥13 years by risk, Arizona 1982 to 2020.



In 2020, 65% of Hispanic incident HIV/AIDS cases in Arizona reported MSM alone as their risk factor. IDU and MSM/IDU accounted for 10% of Hispanic incident cases in 2020. HRH cases comprised just 5% of cases and 20% of Hispanic incident HIV/AIDS cases in 2020 had no risk reported.

INCARCERATED POPULATION

When compared to the general population, incarcerated persons continue to be disproportionately affected by HIV. These individuals face barriers to care such as mental illness, substance abuse, housing and employment instability, distrust of correctional health systems, and concerns of confidentiality.^{2,3} The World Health Organization estimates that in some regions around the globe, HIV prevalence can be up to 15 times higher in prisoners,⁴ while HIV prevalence in the United States is three times higher in prisoners than in the general population.⁵ Furthermore, studies have consistently supported the notion that incarceration disrupts HIV health outcomes, e.g., the achievement of viral suppression.⁶

Among the approximate 2.1 million local jail and state prison inmates throughout the country, Arizona's ten state prisons and six private facilities house approximately 37,731 inmates and reported 306 inmates living with HIV at 2020 year's end.⁷ There were approximately 53 (140.5 per 100,000) incident cases of HIV/AIDS in 2020 among incarcerated individuals compared to 696 (9.6 per 100,000) incident cases in the general population.

Cases by Sex at Birth and Age

When compared to female born inmates, incarcerated persons born male were 6.3 times more likely to receive a new HIV diagnosis in 2020. Incarcerated individuals aged 20-29 had the highest number of new infections in 2020, which accounted for 45% of all new infections among correctional cases. In comparison, 36% represents the statewide proportion of new cases in Arizona that occurred in individuals aged 20-29 years.

Pinal County

Pinal County currently houses the state's largest incarcerated population and had the highest percentage of incarcerated incident HIV/AIDS cases compared to the rest of the state's health jurisdictions. Of the newly diagnosed incarcerated individuals in Pinal County in 2020, roughly 68% were Hispanic, Black non-Hispanic accounted for 7%, White non-Hispanic made up 4.5% of new diagnoses. The highest reported risk came from MSM at 27%, followed by HRH at 18%. After combining IDU and MSM/IDU, these risk categories made up 14% of incarcerated incident cases in Pinal County.

Figure 10: Percent of HIV incident cases among incarcerated persons ≥13 years by race, Pinal County and Arizona 2020.

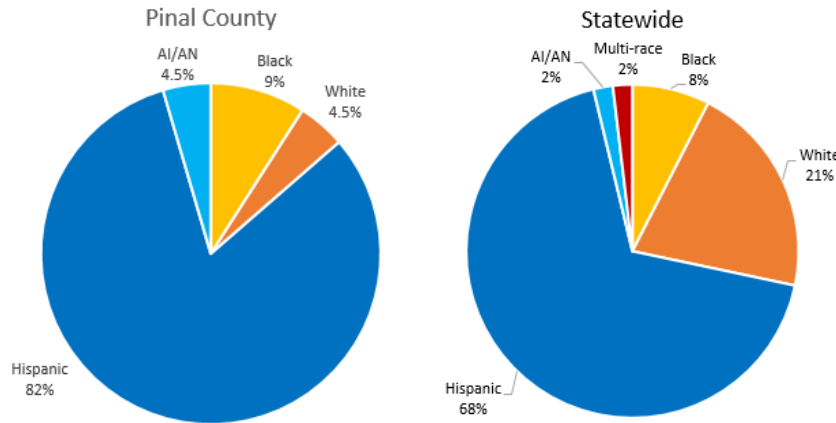
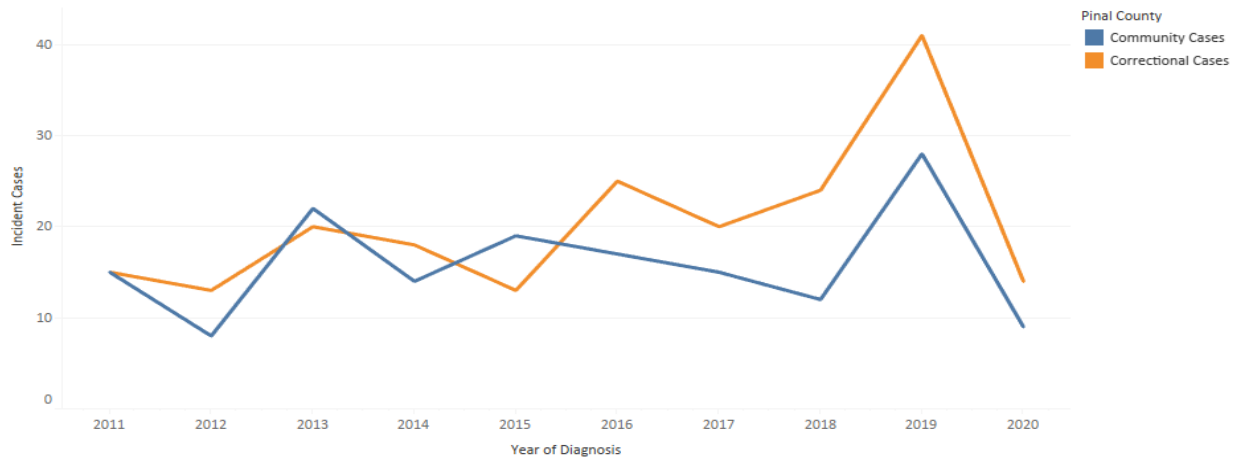


Figure 11: Number of HIV incident cases among incarcerated persons, Pinal County 2011 to 2020.



Of the 37 cases diagnosed in Pinal County in 2020, approximately 59% were housed in a correctional facility at the time of diagnosis.

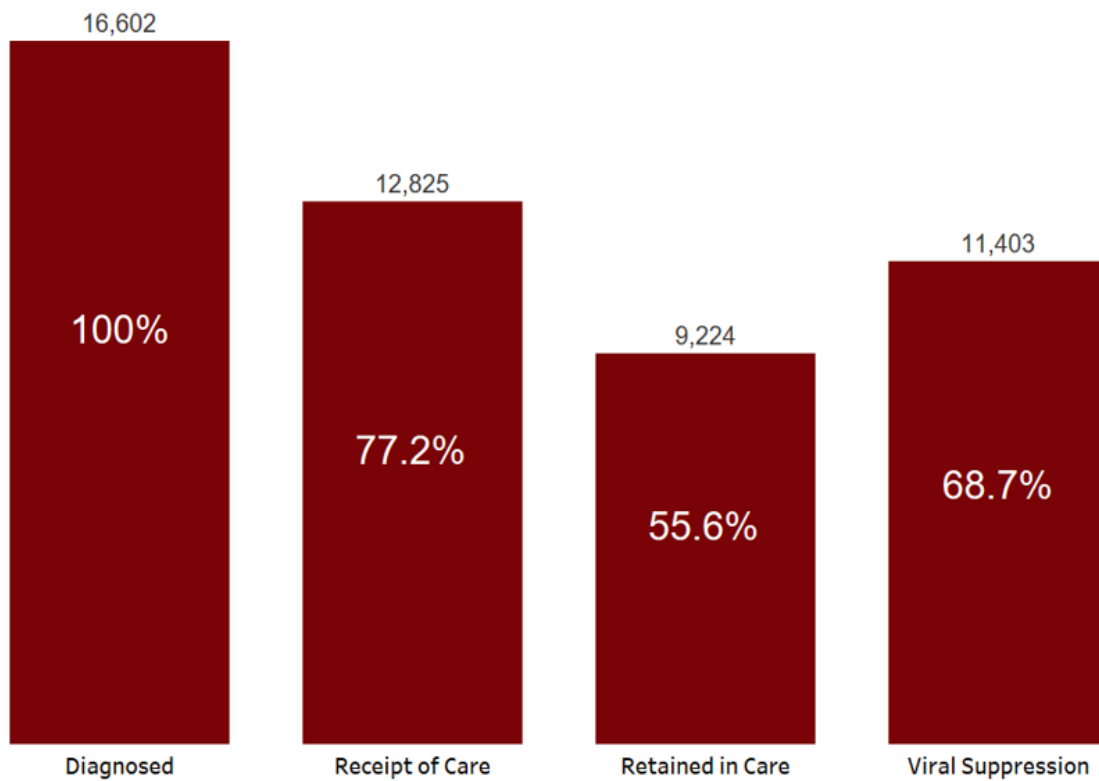
As 9 million individuals move through our country’s correctional facilities on a yearly basis, each phase of incarceration needs to be recognized when studying the effects on HIV/AIDS health outcomes. Several factors to consider include recidivism, number of incarcerations, total and average number of days incarcerated, and time to reincarceration.⁶ Special attention should be granted to vulnerable populations such as incarcerated populations living in congregate settings who may be difficult to reach via community-based testing. Furthermore, focus should be placed on the implementation of opt-out testing in jails, prisons and community correctional facilities as the CDC recommended in 2006, as well as re-entry programs in order to increase the number of inmates being tested and to ensure inmates are able to access HIV care upon release.^{3,8}

HIV CARE CONTINUUM

2020

80.7% of individuals newly diagnosed with HIV/AIDS in 2020 were **linked to care (LTC)** within 30 days of diagnoses.

Figure 12: Arizona HIV Care Continuum, 2020.



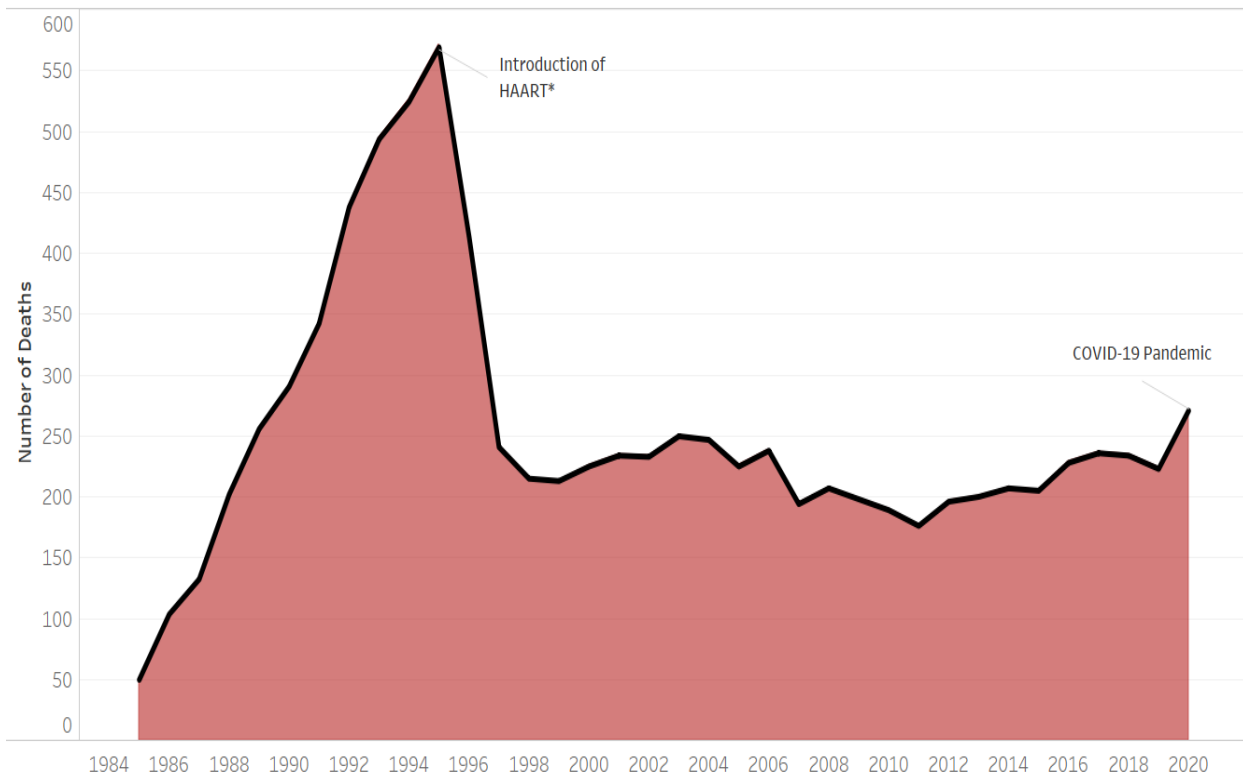
DEATH TREND ANALYSIS

2020

In 1985 then president Ronald Regan made his first address that mentioned AIDS and called it a top priority, this was also the first year that the FDA licensed a blood test that could identify antibodies to the virus.⁹ Additionally, that same year there were 12,529 HIV/AIDS related deaths in the United States (US) and 50 in the state of Arizona². For the next decade the upward trend of deaths due to HIV/AIDS would continue year after year both nationally and within the state of Arizona. In 1995, HIV/AIDS related deaths had reached a historic high with over 300 thousand deaths in the US and 572 deaths in the state of Arizona alone. This was the same year that the FDA approved the first HAART for the treatment of HIV.¹⁰ In Arizona this biopharmaceutical breakthrough had a positive impact on the number of deaths in Arizona as you can see in *Figure 13*, decreasing the number of deaths in one year by over 100.

Figure 13: Number of deaths per year from 1984 to 2020, including indications for the introduction of HAART as well as the COVID-19 Pandemic.

Deaths among PLWH in Arizona from 1985-2020



In addition to reducing the number of overall deaths per year due to HIV/AIDS, the introduction of HAART also allowed people living with HIV (PLWH) to live longer, healthier lives. In Arizona, before and up to 1995, the majority of people who died from HIV/AIDS were between 25 and 49 years of age. By the year 2020 this trend had shifted to the 55-65+ age groups, which accounted for the highest percentage of deaths due to HIV/AIDS.

Figure 14: Number of deaths by age group and year.

Deaths among PLWH by Age Group, 1985-2020

	<2	2-12	13-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
1985	*	*	*	*	10	14	10	*	*	4	4	*	*
1986	*	*	*	5	15	26	21	12	9	7	*	*	6
1987	*	5	*	*	16	29	26	22	14	*	4	4	8
1988	*	*	*	10	33	45	33	30	20	12	8	4	8
1989	*	*	*	14	37	64	48	41	15	14	11	6	6
1990	*	*	*	6	36	58	58	61	28	22	14	*	6
1991	*	4	*	11	52	69	64	62	39	21	7	4	9
1992	*	*	*	4	44	101	95	77	51	32	8	14	12
1993	*	*	*	4	48	101	126	78	70	38	10	10	8
1994	*	4	*	9	45	134	115	94	59	38	10	11	7
1995	*	*	*	4	49	127	135	101	67	43	23	14	7
1996	*	*	4	6	26	82	95	85	58	36	14	5	4
1997	*	*	*	*	17	48	54	46	31	15	15	10	*
1998	*	*	*	*	9	37	48	46	35	16	11	5	4
1999	*	*	*	*	9	26	55	40	29	26	10	8	6
2000	*	*	*	*	8	23	43	45	40	22	20	12	5
2001	*	*	*	*	6	27	45	54	33	25	20	8	11
2002	*	*	*	5	6	16	38	60	51	32	18	*	4
2003	*	*	*	*	5	22	47	49	48	32	20	11	13
2004	*	*	*	*	6	19	44	50	49	33	23	8	13
2005	*	*	*	*	5	20	34	56	41	28	16	11	14
2006	*	*	*	*	7	16	32	43	55	34	24	19	8
2007	*	*	*	*	8	12	23	39	42	28	19	11	11
2008	*	*	*	*	10	12	23	36	43	40	21	10	12
2009	*	*	*	*	7	8	24	25	42	35	21	17	19
2010	*	*	*	*	6	13	12	21	38	38	26	14	22
2011	*	*	*	*	5	6	14	20	44	31	20	14	21
2012	*	*	*	*	12	13	15	13	37	36	22	26	20
2013	*	*	*	*	4	12	13	19	40	34	32	23	22
2014	*	*	*	4	4	10	16	21	38	37	34	21	23
2015	*	*	*	*	6	8	14	16	24	45	34	19	38
2016	*	*	*	*	6	13	13	15	27	43	41	33	37
2017	*	*	*	4	6	13	8	15	31	41	39	32	48
2018	*	*	*	*	10	*	10	10	30	43	49	31	47
2019	4	*	*	*	7	9	14	13	25	36	34	29	50
2020	*	*	*	*	5	18	24	18	18	36	51	33	67

Both *Figure 13 and Figure 14* provide clear evidence for the immense impact of the rapid advancement in treatment technologies had on the overall number of deaths and the feasibility for PLWH to live long, healthy lives. This trend will hopefully continue as more prevention services become accessible to the community and new medications come to market making it easier for PLWH to adhere to medication regimens.

ACKNOWLEDGEMENTS

The HIV Surveillance Program at Arizona Department of Health Services would like to thank the following individuals for their support of the program and publication of this report:

Authors

Jay Armenta, MPH – Epidemiologist, ADHS Contractor
Maxwell Short, MPH -- Epidemiologist, HIV Surveillance
Ryan Manos, MPH – Epidemiologist/Data Manager, HIV Surveillance

HIV Surveillance Staff

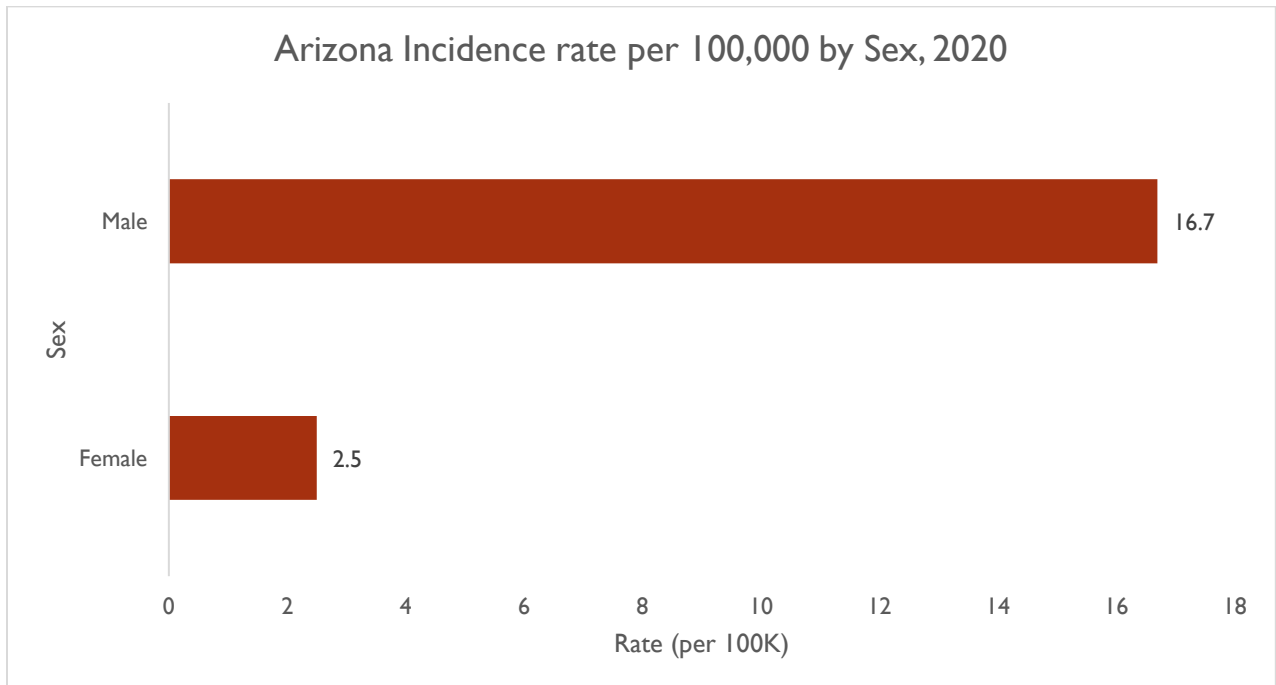
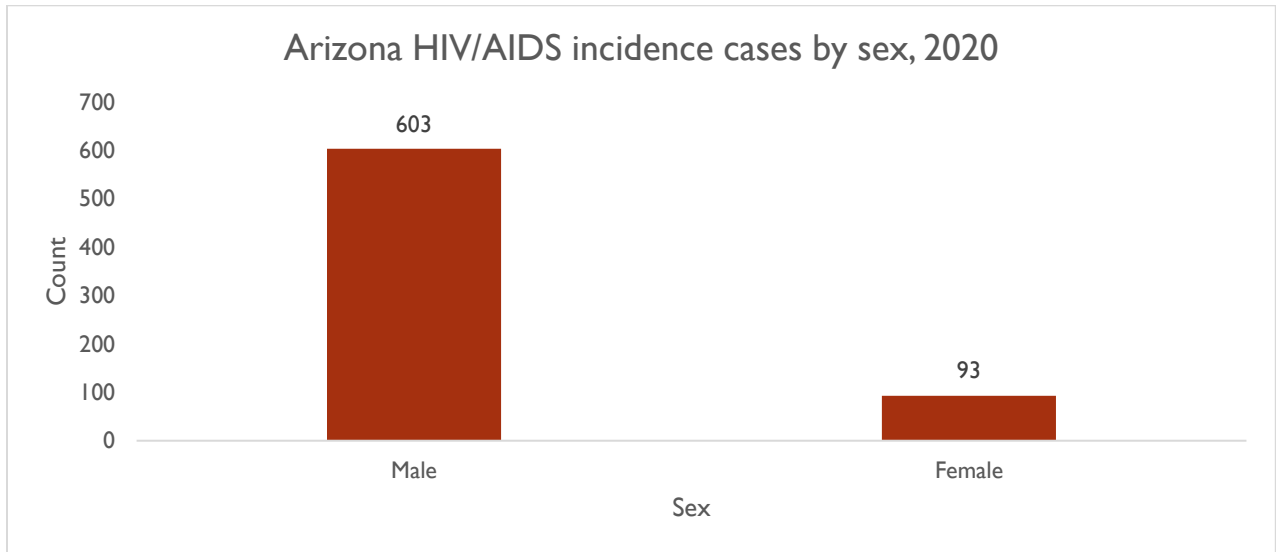
Rick DeStephens, MHA – Program Manager, HIV Surveillance
Heidi Frautnick, MPH – Epidemiologist/Surveillance Coordinator, HIV Surveillance
Blanca Hughes – Program Project Specialist, HIV Surveillance
Julia Mulligan – Incidence Coordinator, HIV Surveillance
Rosalinda Avila – Program Project Specialist, HIV Surveillance
Priscilla Hernandez – Data Entry, HIV Surveillance
Gabriela Ramirez – Data Entry, HIV Surveillance

Acknowledgements

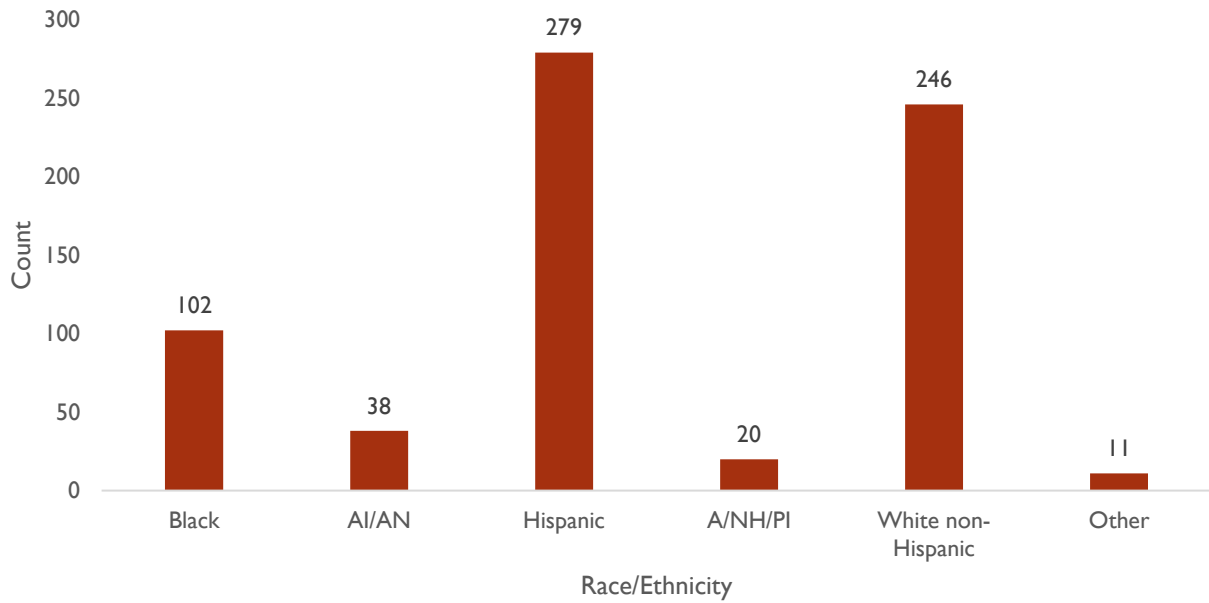
Kristen Herrick, MPH, CHES – Chief, Office of Disease Integration and Services
Eugene Livar, MD, CIC – Chief, Bureau of Epidemiology and Disease Control

APPENDIX 1: STATEWIDE DEMOGRAPHICS

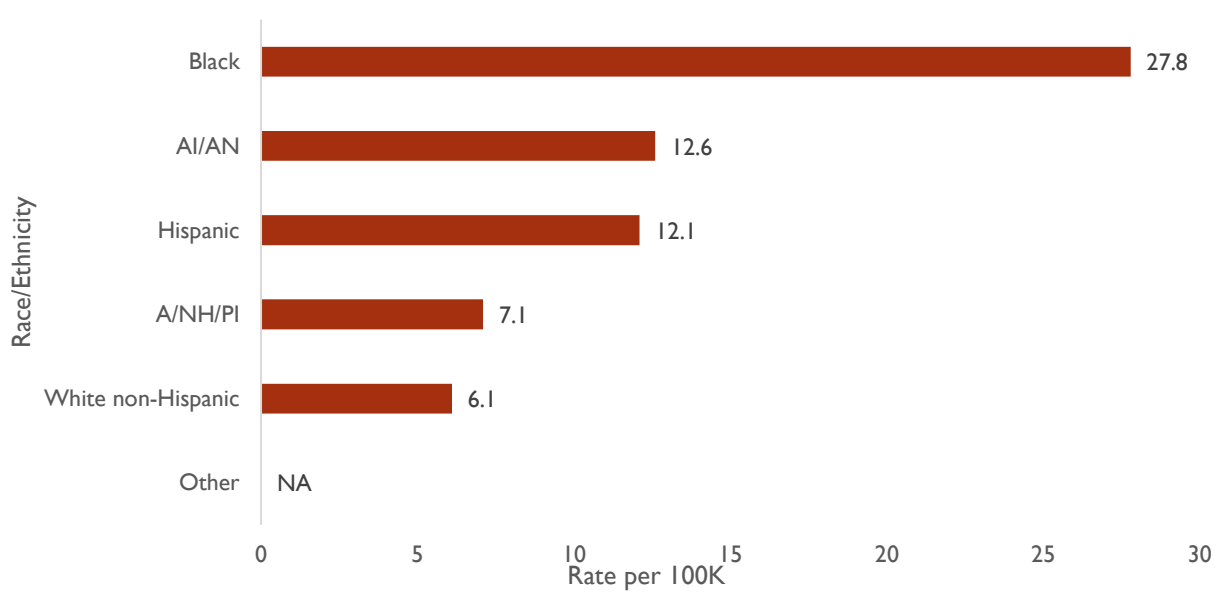
HIV/AIDS INCIDENCE, 2020



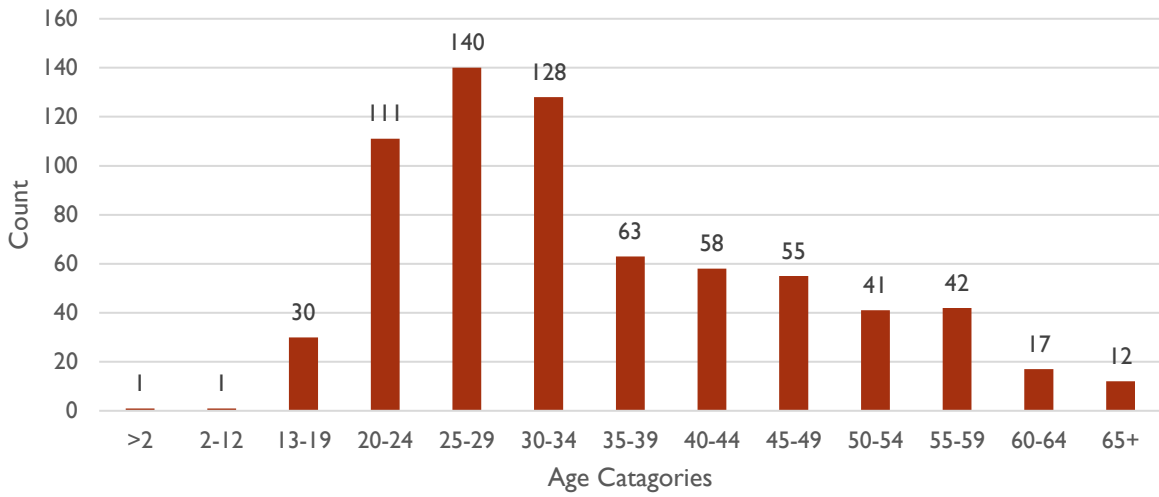
Arizona HIV/AIDS incident cases by race/ethnicity, 2020



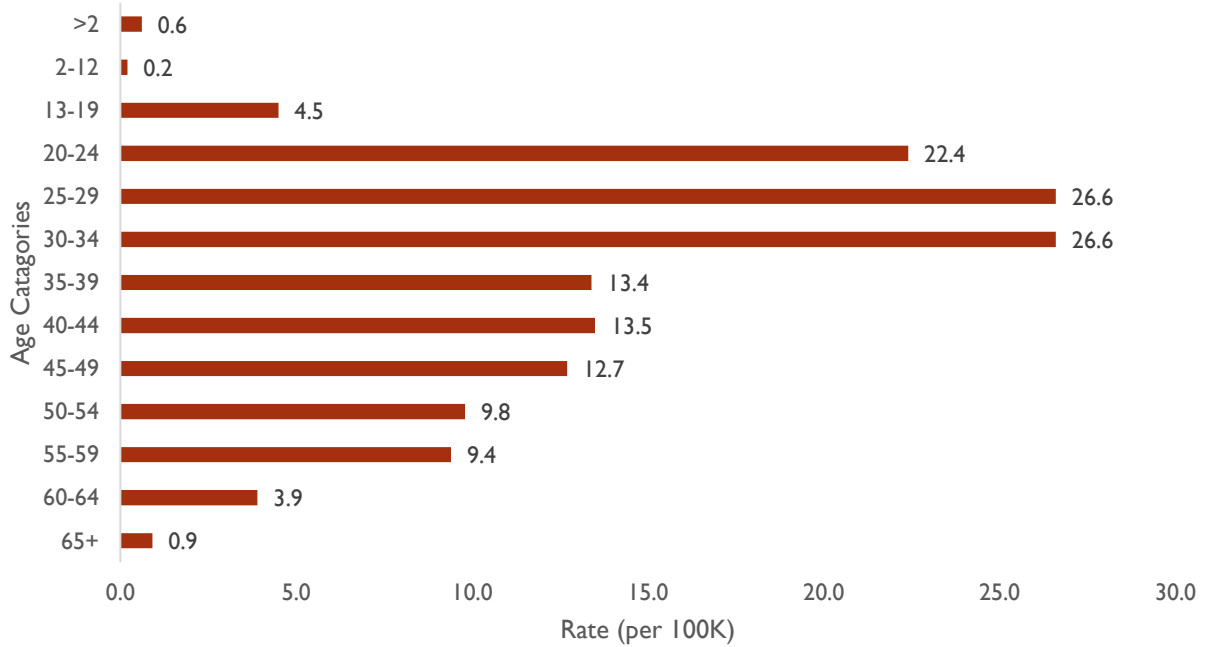
Arizona Incidence Rate per 100,000 by race/ethnicity, 2020



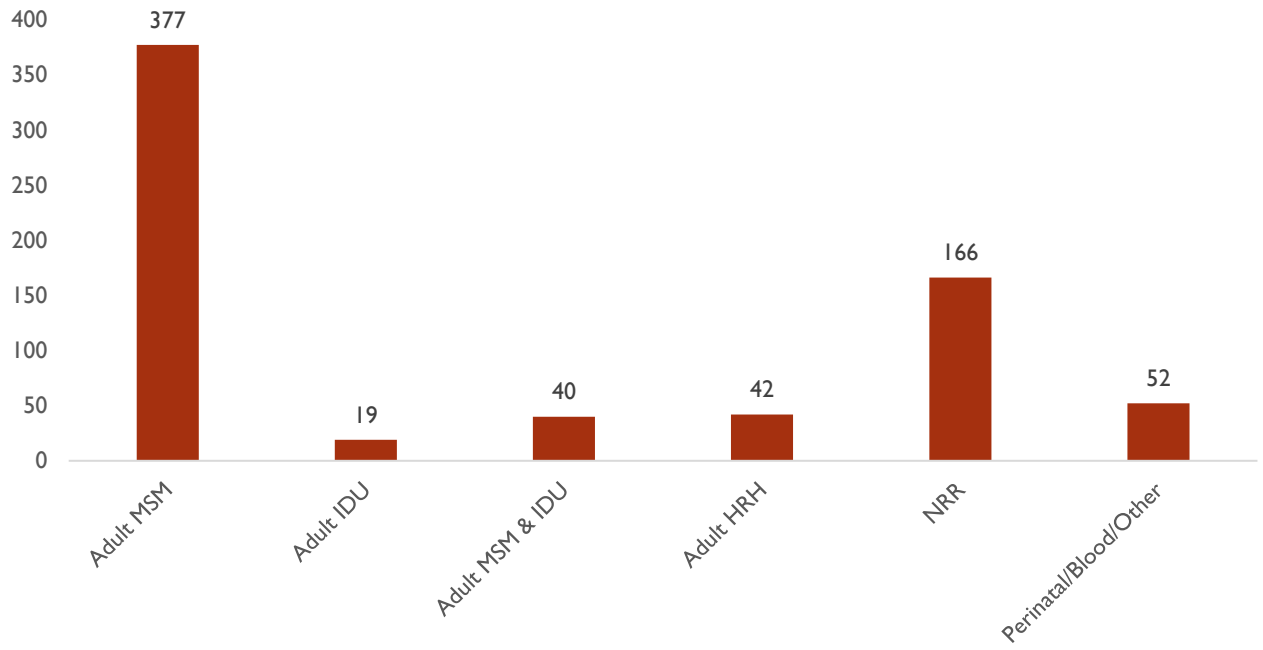
Arizona HIV/AIDS incidence cases by age, 2020



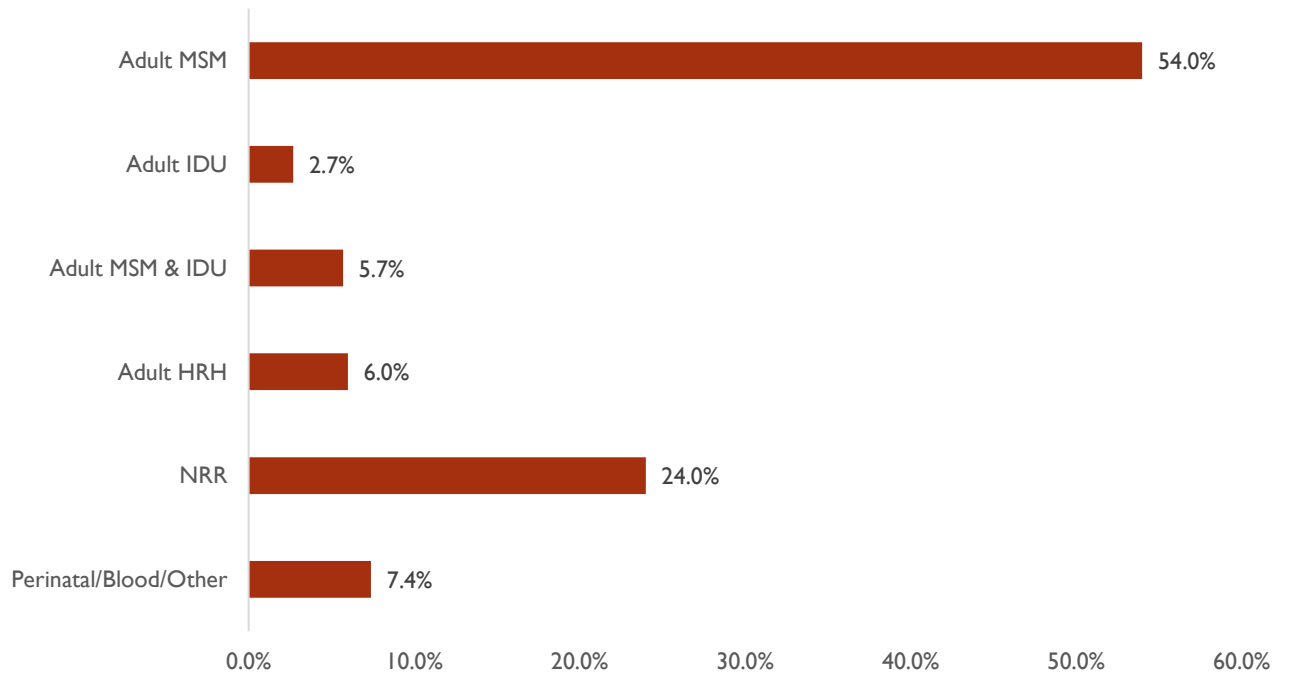
Arizona Incidence rate per 100,000 by Age, 2020



Arizona HIV/AIDS incidence cases by risk, 2020

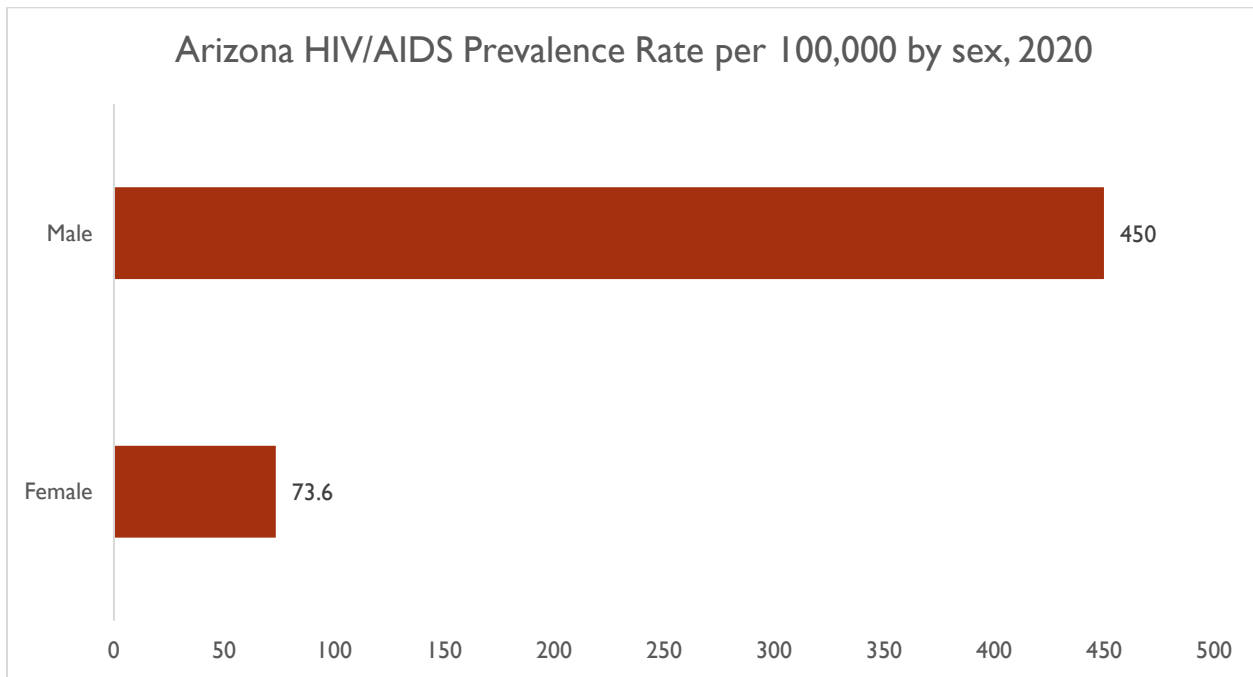
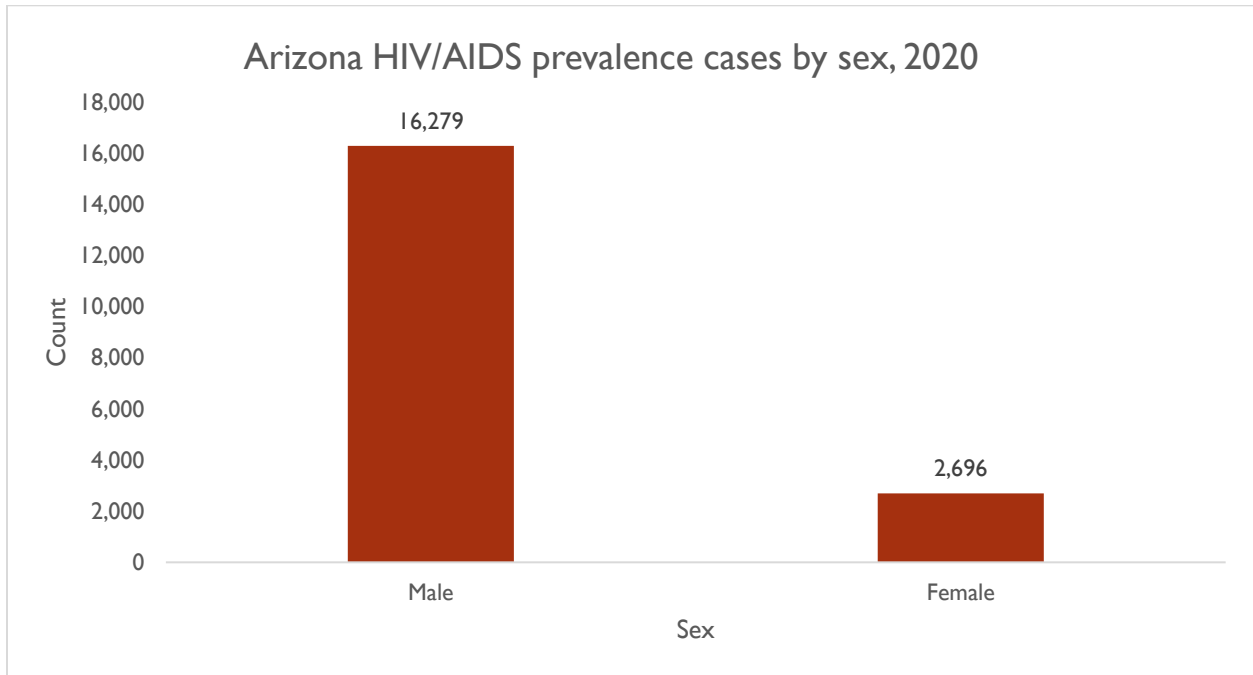


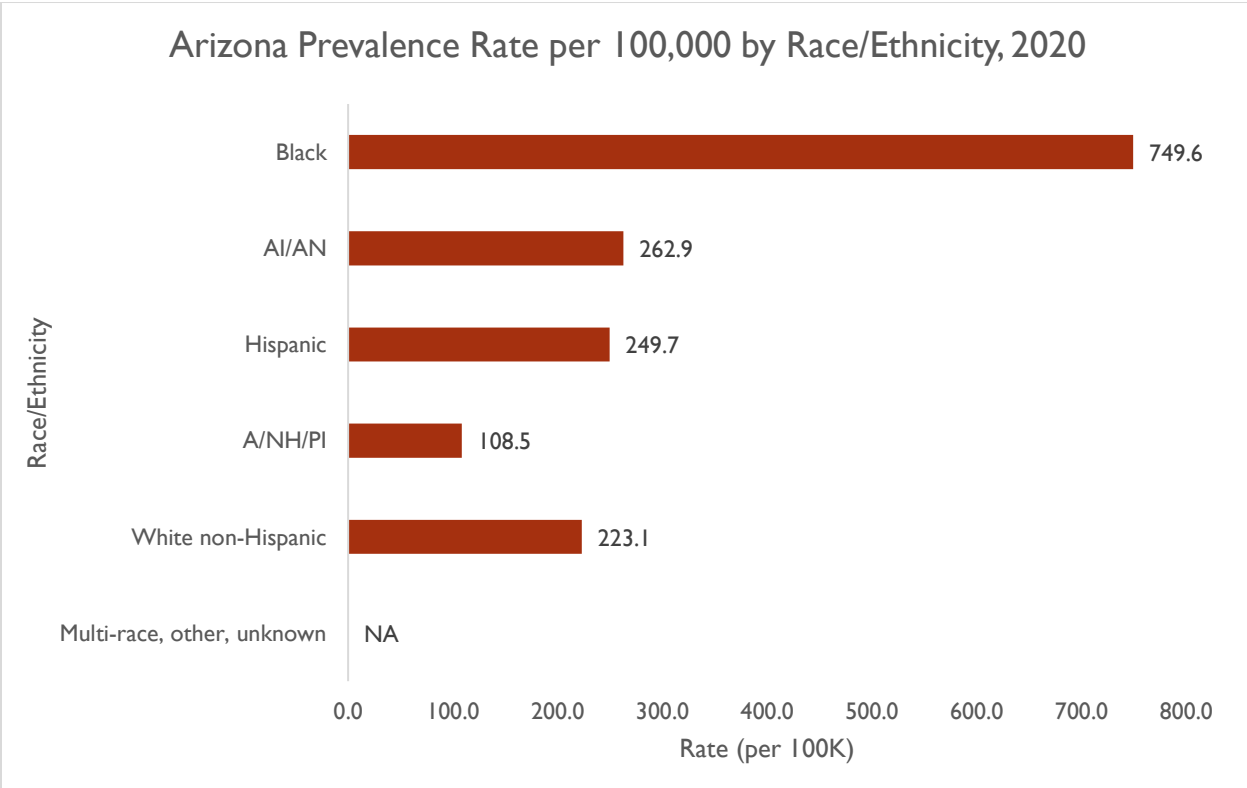
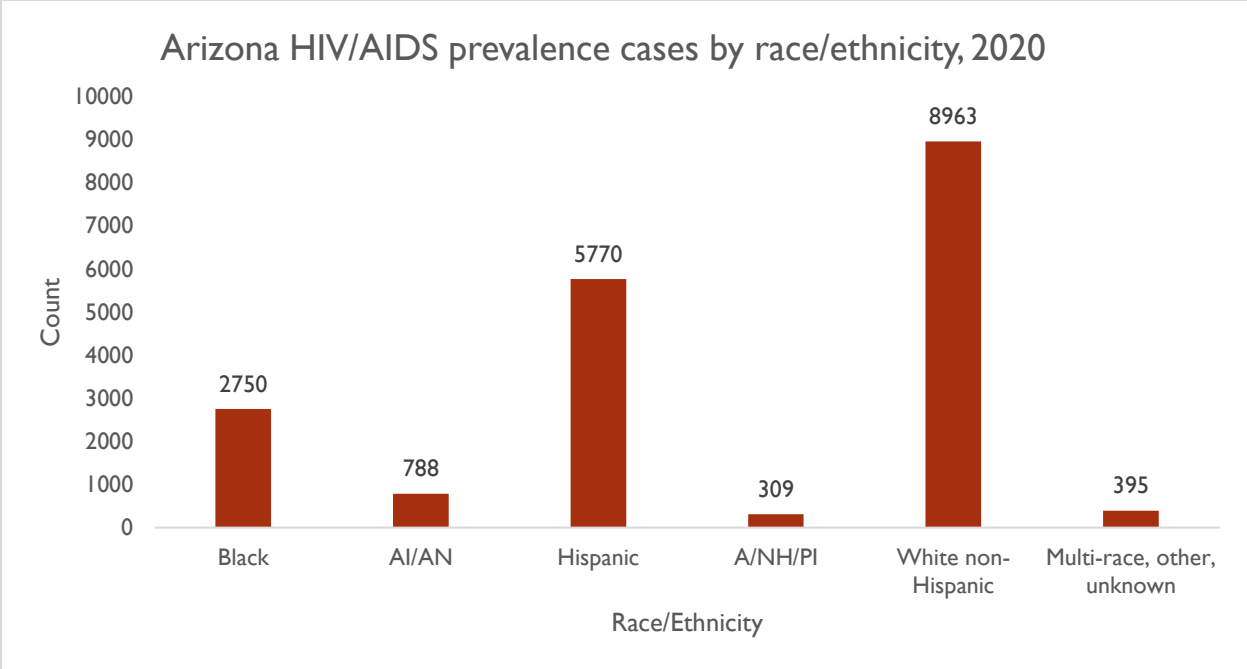
Arizona HIV/AIDS incidence percent of state total by Risk, 2020



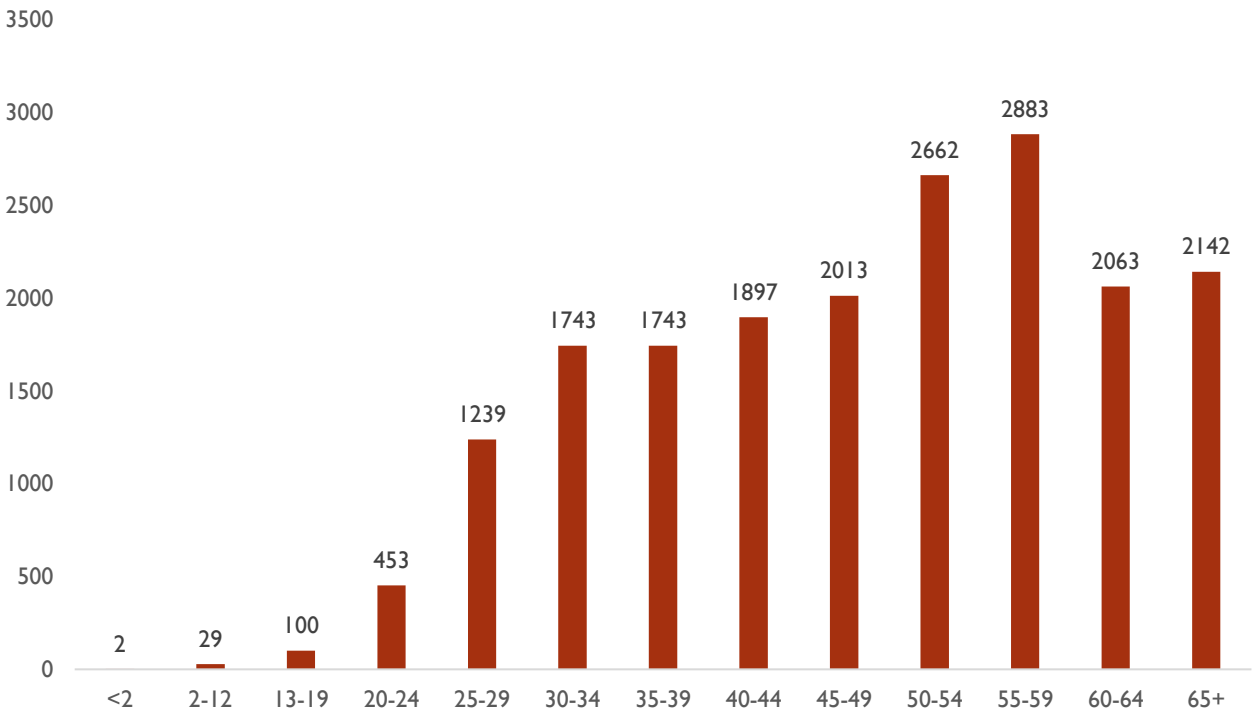
APPENDIX 2: STATEWIDE DEMOGRAPHICS

HIV/AIDS PREVALENCE, 2020

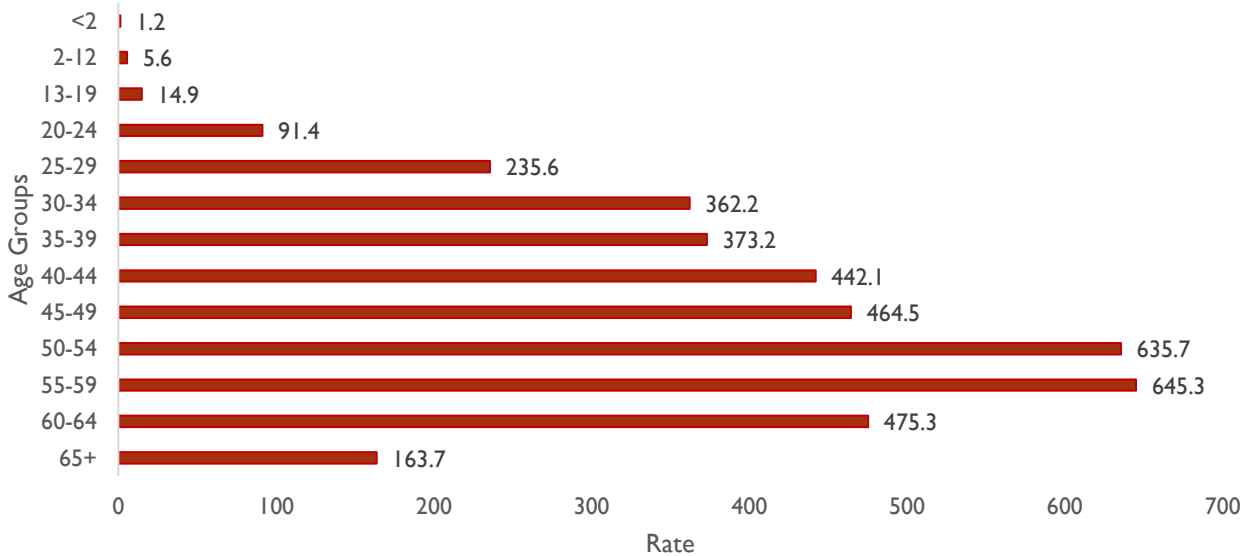


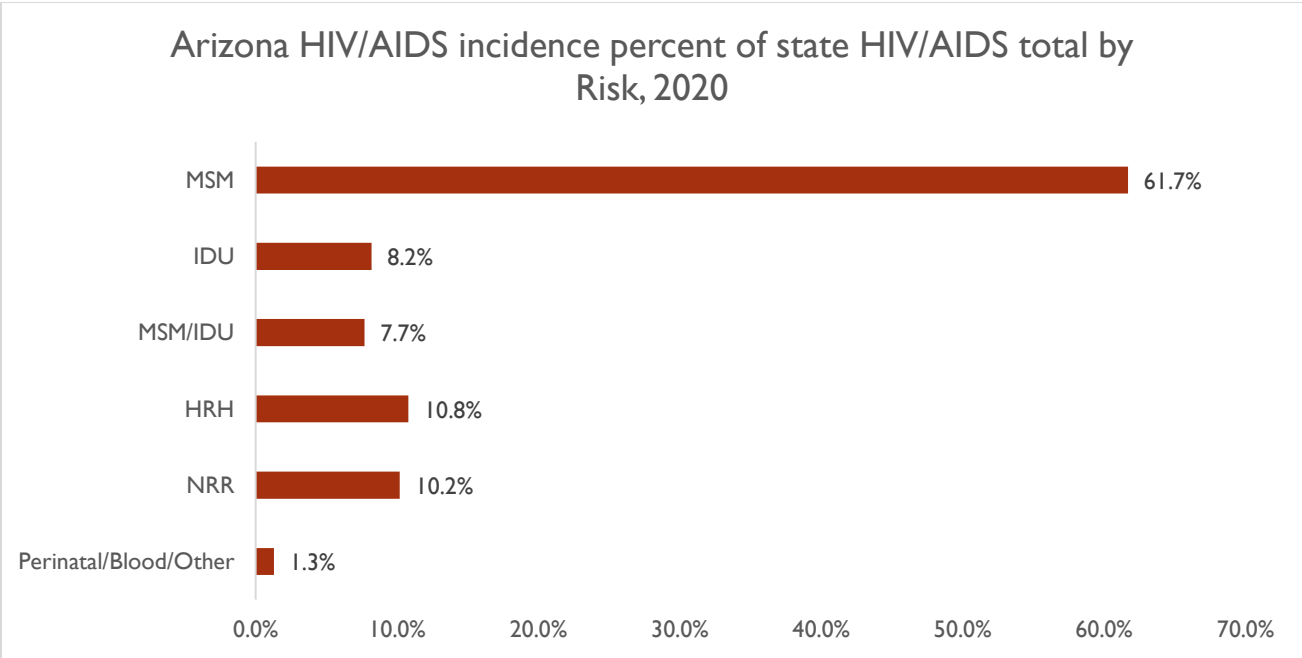
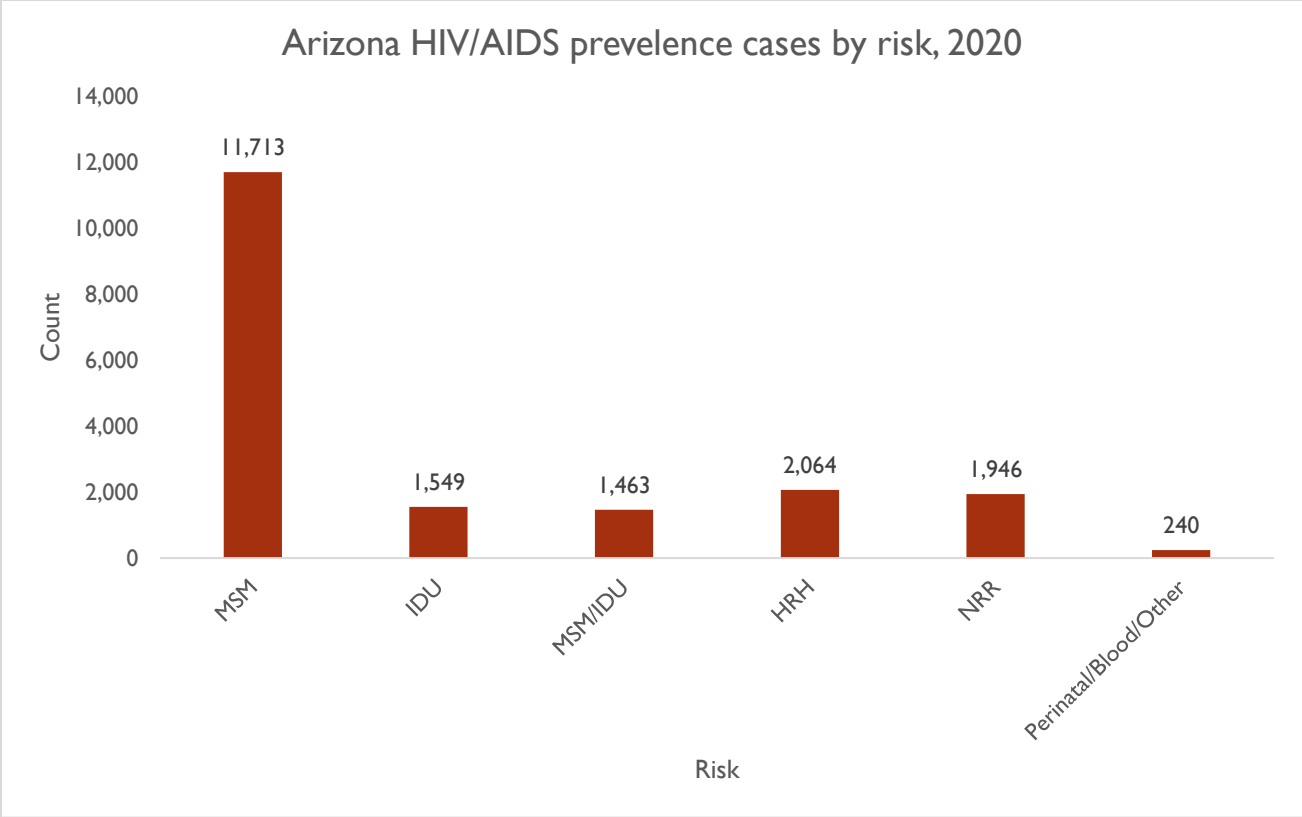


Arizona HIV/AIDS prevalence count by age categories, 2020



Arizona HIV/AIDS Prevalence rate per 100,000 by age categories, 2020





APPENDIX 3: COUNTY TABLES

HIV/AIDS INCIDENCE & PREVALENCE, 2020

2020 Apache County (Population: 71,887)

	Incidence						Prevalence						
	N	Rate					N	Rate					
	7	9.7					131	182.2					
Age categories	<2	2-12	13-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
Incidence	0	0	0	2	2	0	2	1	0	0	0	0	0
Prevalence	0	1	0	4	15	8	18	18	15	16	17	12	7
Race/ Ethnicity	Black	AI/AN	Hispanic	A/NH/PI	White	Other							
Incidence	*	*	*	*	*	*							
Prevalence	*	114	*	0	12	*							
Risk categories	MSM	IDU	MSM/IDU	HRH	NRR	Perinatal/Blood/Other							
Incidence	4	0	1	0	2	0							
Prevalence	64	18	20	18	9	2							
Sex	Male	Female											
Incidence	7	0											
Prevalence	111	20											

2020 Cochise County (Population: 125,922)

	Incidence						Prevalence						
	N	Rate					N	Rate					
	5	3.9					248	196.9					
Age categories	<2	2-12	13-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
Incidence	0	0	0	1	2	1	0	0	0	0	1	0	0
Prevalence	0	0	1	4	9	6	19	23	17	39	40	35	54
Race/ Ethnicity	Black	AI/AN	Hispanic	A/NH/PI	White	Other							
Incidence	*	*	*	0	*	0							
Prevalence	28	11	57	3	141	8							
Risk categories	MSM	IDU	MSM/IDU	HRH	NRR	Perinatal/Blood/Other							
Incidence	4	0	0	1	0	0							
Prevalence	140	27	20	34	24	3							
Sex	Male	Female											
Incidence	5	0											
Prevalence	207	41											

*Data for race/ethnicity are suppressed based on suppression criteria** to protect privacy and confidentiality.

2020 Coconino County (Population: 143,476)

	Incidence						Prevalence						
	N		Rate				N		Rate				
	7	4.9					190	132.4					
Age categories	<2	2-12	13-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
Incidence	0	0	1	4	0	0	1	0	1	0	0	0	0
Prevalence	0	0	2	8	18	23	20	19	14	21	20	23	22
Race/ Ethnicity	Black	AI/AN	Hispanic	A/NH/PI	White	Other							
Incidence	*	*	*	*	*	*							
Prevalence	14	73	33	5	61	4							
Risk categories	MSM	IDU	MSM/IDU	HRH	NRR	Perinatal/Blood/Other							
Incidence	4	0	0	0	3	0							
Prevalence	113	17	18	15	25	2							
Sex	Male	Female											
Incidence	7	0											
Prevalence	168	22											

2020 Gila County (Population: 54,018)

	Incidence					Prevalence							
	N		Rate			N		Rate					
	4	7.4				56	103.6						
Age categories	<2	2-12	13-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
Incidence	0	0	0	0	1	2	0	0	1		0	0	0
Prevalence	0	0	1	0	1	2	10	7	5	11	7	5	7
Race/ Ethnicity	Black	AI/AN	Hispanic	A/NH/PI	White	Other							
Incidence	*	*	*	*	*	0							
Prevalence	*	10	5	*	38	*							
Risk categories	MSM	IDU	MSM/IDU	HRH	NRR	Perinatal/Blood/Other							
Incidence	1	0	0	1	2	0							
Prevalence	27	8	9	7	4	1							
Sex	Male	Female											
Incidence	4	0											
Prevalence	42	14											

*Data for race/ethnicity are suppressed based on suppression criteria** to protect privacy and confidentiality.

2020 Graham County (Population: 38,837)

	Incidence						Prevalence						
	N		Rate				N		Rate				
	1	2.6					34	87.5					
Age categories	<2	2-12	13-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
Incidence	0	0	0	0	0	0	1	0	0	0	0	0	0
Prevalence	0	0	0	0	2	9	1	1	4	6	6	0	5
Race/ Ethnicity	Black	AI/AN	Hispanic	A/NH/PI	White	Other							
Incidence	*	*	*	*	*	*							
Prevalence	*	*	13	*	18	0							
Risk categories	MSM	IDU	MSM/IDU	HRH	NRR	Perinatal/Blood/Other							
Incidence	0	0	0	0	1	0							
Prevalence	11	10	4	5	4	0							
Sex	Male	Female											
Incidence	1	0											
Prevalence	31	3											

2020 Greenlee County (Population: 9,498)

	Incidence					Prevalence							
	N		Rate			N		Rate					
	0	0				5	52.6						
Age categories	<2	2-12	13-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
Incidence	0	0	0	0	0	0	0	0	0	0	0	0	0
Prevalence	0	0	0	0	2	1	0	0	0	0	1	0	1
Race/ Ethnicity	Black	AI/AN	Hispanic	A/NH/PI	White	Other							
Incidence	0	0	0	0	0	0							
Prevalence	*	*	*	*	*	*							
Risk categories	MSM	IDU	MSM/IDU	HRH	NRR	Perinatal/Blood/Other							
Incidence	0	0	0	0	0	0							
Prevalence	3	0	0	0	1	1							
Sex	Male	Female											
Incidence	0	0											
Prevalence	5	0											

*Data for race/ethnicity are suppressed based on suppression criteria** to protect privacy and confidentiality.

2020 La Paz County (Population: 21,108)

	Incidence						Prevalence						
	N		Rate				N		Rate				
	1	4.7					24	113.7					
Age categories	<2	2-12	13-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
Incidence	0	0	0	0	1	0	0	0	0	0	0	0	0
Prevalence	0	0	0	0	0	0	5	2	2	2	3	5	5
Race/ Ethnicity	Black	AI/AN	Hispanic	A/NH/PI	White	Other							
Incidence	0	*	*	0	*	0							
Prevalence	*	*	4	0	17	0							
Risk categories	MSM	IDU	MSM/IDU	HRH	NRR	Perinatal/Blood/Other							
Incidence	1	0	0	0	0	0							
Prevalence	13	5	3	3	0	0							
Sex	Male	Female											
Incidence	1	0											
Prevalence	17	7											

2020 Maricopa County (Population: 4,485,414)

	Incidence						Prevalence						
	N		Rate				N		Rate				
	497	11.1					13028	290.5					
Age Categories	<2	2-12	13-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
Incidence	1	1	22	76	101	99	40	39	35	31	31	13	8
Prevalence	2	20	75	318	909	1313	1241	1333	1409	1826	1935	1315	1321
Race/ Ethnicity	Black	AI/AN	Hispanic	A/NH/PI	White	Other							
Incidence	82	20	189	6	179	11							
Prevalence	2183	362	3726	231	6246	280							
Risk categories	MSM	IDU	MSM/IDU	HRH	NRR	Perinatal/Blood/Other							
Incidence	280	14	28	27	111	37							
Prevalence	8396	854	873	1330	1415	160							
Sex	Male	Female											
Incidence	429	68											
Prevalence	11161	1867											

*Data for race/ethnicity are suppressed based on suppression criteria** to protect privacy and confidentiality.

2020 Mohave County (Population: 212,181)

	Incidence						Prevalence						
	N		Rate		N		Rate						
	10	4.7			323	152.2							
Age categories	<2	2-12	13-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
Incidence	0	0	0	2	1	2	1	1	2	0	0	0	1
Prevalence	0	0	0	6	18	14	30	23	31	42	77	39	43
Race/ Ethnicity	Black	AI/AN	Hispanic	A/NH/PI	White	Other							
Incidence	0	0	*	*	8	*							
Prevalence	14	9	44	5	243	8							
Risk categories	MSM	IDU	MSM/IDU	HRH	NRR	Perinatal/Blood/Other							
Incidence	2	0	3	1	3	1							
Prevalence	156	52	43	46	43	4							
Sex	Male	Female											
Incidence	7	3											
Prevalence	268	55											

2020 Navajo County (Population: 110,924)

	Incidence						Prevalence						
	N		Rate		N		Rate						
	4	3.6			136	122.6							
Age Categories	<2	2-12	13-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
Incidence	0	0	0	0	0	2	1	0	0	0	0	1	0
Prevalence	0	0	0	4	6	14	16	12	13	24	18	14	15
Race/ Ethnicity	Black	AI/AN	Hispanic	A/NH/PI	White	Other							
Incidence	0	4	0	0	0	0							
Prevalence	*	92	8	*	28	*							
Risk Categories	MSM	IDU	MSM/IDU	HRH	NRR	Perinatal/Blood/Other							
Incidence	1	0	1	0	1	0							
Prevalence	63	25	20	19	8	1							
Sex	Male	Female											
Incidence	4	0											
Prevalence	107	29											

*Data for race/ethnicity are suppressed based on suppression criteria** to protect privacy and confidentiality.

2020 Pima County (Population: 1,047,279)

	Incidence						Prevalence							
	N		Rate		N		Rate		40-44	45-49	50-54	55-59	60-64	65+
	89		8.5		2923		279.1							
Age Categories	<2	2-12	13-19	20-24	25-29	30-34	35-39							
Incidence	0	0	4	17	16	17	8	8	5	5	7	2	0	
Prevalence	0	7	15	66	153	197	202	236	274	385	492	408	483	
Race/ Ethnicity	Black	AI/AN	Hispanic	A/NH/PI	White	Other								
Incidence	11	*	42	*	34	*								
Prevalence	345	67	951	37	1471	52								
Risk Categories	MSM	IDU	MSM/IDU	HRH	NRR	Perinatal/Blood/Other								
Incidence	53	0	2	5	23	6								
Prevalence	1817	235	256	329	235	51								
Sex	Male	Female												
Incidence	76	13												
Prevalence	2530	393												

2020 Pinal County (Population:462,789)

	Incidence						Prevalence							
	N		Rate		N		Rate		40-44	45-49	50-54	55-59	60-64	65+
	37		7.9		1154		249.4							
Age Categories	<2	2-12	13-19	20-24	25-29	30-34	35-39							
Incidence	0	0	2	5	9	2	5	5	6	2	0	1		
Prevalence	0	0	4	27	69	103	124	161	165	183	152	96	70	
Race/ Ethnicity	Black	AI/AN	Hispanic	A/NH/PI	White	Other								
Incidence	5	*	23	*	7	*								
Prevalence	125	31	644	16	318	20								
Risk Categories	MSM	IDU	MSM/IDU	HRH	NRR	Perinatal/Blood/Other								
Incidence	12	1	2	4	15	3								
Prevalence	520	208	125	149	145	7								
Sex	Male	Female												
Incidence	33	4												
Prevalence	1024	130												

*Data for race/ethnicity are suppressed based on suppression criteria** to protect privacy and confidentiality.

2020 Santa Cruz County (Population:46,498)

	Incidence						Prevalence						
	N		Rate				N		Rate				
	7	15.1					71	152.7	40-44	45-49	50-54	55-59	60-64
Age Categories	<2	2-12	13-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
Incidence	0	0	0	1	2	0	1	1	1	0	1	0	0
Prevalence	0	0	0	3	7	3	5	8	7	5	9	7	17
Race/ Ethnicity	Black	AI/AN	Hispanic	A/NH/PI	White	Other							
Incidence	*	0	6	*	0	*							
Prevalence	*	0	57	*	12	*							
Risk Categories	MSM	IDU	MSM/IDU	HRH	NRR	Perinatal/Blood/Other							
Incidence	4	1	1	0	0	1							
Prevalence	45	4	7	10	4	1							
Sex	Male	Female											
Incidence	6	1											
Prevalence	63	8											

2020 Yavapai County (Population: 235,099)

	Incidence						Prevalence						
	N		Rate				N		Rate				
	11	4.7					338	143.7	40-44	45-49	50-54	55-59	60-64
Age Categories	<2	2-12	13-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
Incidence	0	0	0	1	2	2	0	0	2	2	0	0	2
Prevalence	0	1	0	6	13	17	18	21	27	60	58	59	58
Race/ Ethnicity	Black	AI/AN	Hispanic	A/NH/PI	White	Other							
Incidence	*	0	*	*	8	0							
Prevalence	8	10	51	5	255	9							
Risk Categories	MSM	IDU	MSM/IDU	HRH	NRR	Perinatal/Blood/Other							
Incidence	5	0	2	0	2	2							
Prevalence	189	43	35	47	21	3							
Sex	Male	Female											
Incidence	9	2											
Prevalence	278	60											

*Data for race/ethnicity are suppressed based on suppression criteria** to protect privacy and confidentiality.

2020 Yuma County (Population: 213,787)

	Incidence						Prevalence							
	N		Rate		N		Rate							
	16	7.5			303	141.7								
Age Categories	<2	2-12	13-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+	
Incidence	0	0	0	2	3	1	3	2	1	1	2	0	1	
Prevalence	0	0	2	6	17	21	32	32	27	42	48	43	33	
Race/ Ethnicity	Black	AI/AN	Hispanic	A/NH/PI	White	Other								
Incidence	0	0	12	0	4	0								
Prevalence	22	4	170	3	97	7								
Risk Categories	MSM	IDU	MSM/IDU	HRH	NRR	Perinatal/Blood/Other								
Incidence	6	3	0	3	3	1								
Prevalence	150	41	28	52	28	4								
Sex	Male	Female												
Incidence	14	2												
Prevalence	257	46												

**All suppression for counties for race/ethnicity were done based on the following criteria: For Incidence, a total incidence case count of three or less or individual race/ethnicity values are suppressed for privacy if possible identification due to makeup of the county population. For prevalence, a race/ethnicity value is suppressed if the value is less than four and the total county population is less than 140,000.

All Denominators and population data are from the CDC's National Center of Health Statistics ¹¹.

REFERENCES

1. “Current Trends Mortality Attributable to HIV Infection/AIDS -- United States, 1981-1990.” *MMWR Weekly*, Centers for Disease Control and Prevention January 25, 1991 / 40(3);41-44. <https://www.cdc.gov/mmwr/preview/mmwrhtml/00001880.htm>
2. Bailey, S., Gilmore, K., Yerkes, L. et al. Connecting Corrections and HIV Care: Building a Care Coordination Program for Recently Incarcerated Persons Living with HIV in Virginia. *AIDS Behav* 23, 25–31 (2019). <https://doi.org/10.1007/s10461-017-2003-3>
3. National HIV Curriculum <https://cdn.hiv.uw.edu/pdf/key-populations/hiv-corrections/core-concept/all>
4. WHO <https://www.who.int/hiv/topics/prisons/about/en/>
5. HIV in prisons <https://www.bjs.gov/index.cfm?ty=pbdetail&iid=6026>
6. Iroh, P. A., Mayo, H., & Nijhawan, A. E. (2015). The HIV Care Cascade Before, During, and After Incarceration: A Systematic Review and Data Synthesis. *American journal of public health*, 105(7), e5–e16. <https://doi.org/10.2105/AJPH.2015.302635>
7. DOC <https://corrections.az.gov/sites/default/files/REPORTS/CAG/2020/cagdec20.pdf>
8. Centers for Disease Control and Prevention. (2018). HIV Surveillance Report, 2018 (Preliminary). *HIV Surveillance Report*, 30, 1–129.
9. Awofala, A.A., Ogundele, O. E. (2018). History of HIV and AIDS Overview | AVERT. *Avert*, 1–11. <https://www.avert.org/professionals/history-hiv-aids/overview>
10. *HIV/AIDS: Snapshots of an Epidemic Title*. (n.d.). <https://www.amfar.org/thirty-years-of-hiv/aids-snapshots-of-an-epidemic/>
11. National Center for Health Statistics. Vintage 2019 postcensal estimates of the resident population of the United States (April 1, 2010, July 1, 2010–July 1, 2019), by year, county, single-year of age (0, 1, 2, .., 85 years and over), bridged race, Hispanic origin, and sex. Prepared under a collaborative arrangement with the U.S. Census Bureau. Available from: /nchs/nvss/bridged_race.htm as of July 9, 2020, following release by the U.S. Census Bureau of the unbridged Vintage 2019 postcensal estimates by 5-year age group on June 25, 2020.