State of Maine
HIV and AIDS Epidemiological Profile, 2015

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Prepared for:

HIV, STD and Viral Hepatitis Program
Division of Infectious Disease
Maine Center for Disease Control and Prevention
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List of Abbreviations

ADAP	AIDS Drug Assistance Program
AI/AN	American Indian/Alaska Native
AIDS	Acquired Immunodeficiency Syndrome (HIV stage 3)
BRFSS	Behavioral Risk Factor Surveillance System
CDC	United States Centers for Disease Control and Prevention
CTR	Counseling, Testing and Referral sites
DHHS	Maine Department of Health and Human Services
DIS	Disease Intervention Specialist
eHARS	Electronic HIV/AIDS Reporting System
FPL	Federal poverty level
HAV	Hepatitis A virus
HBV	Hepatitis B virus
HCV	Hepatitis B virus
HIV	Human Immunodeficiency Virus
HPSA	Health professional shortage areas
HRSA	Health Resources and Services Administration (US HHS)
IDU	Injection drug use
MeCDC	Maine Center for Disease Control and Prevention
MIYHS	Maine Integrated Youth Health Survey
MSM	Men who have sex with men
MUA	Medically underserved areas
MUP	Medically underserved populations
NCHSTP	National Center for HIV, STD, and TB Prevention (CDC)
NIR	No identified risk
NRR	No reported risk
NSDUH	National Survey of Drug Use and Health
PHD	Public health district
PLWHA	People living with diagnosed HIV/AIDS
STD	Sexually transmitted disease
WITS	Web Infrastructure for Treatment Systems

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Executive Summary

This profile was developed by the Maine Center for Disease Control and Prevention (MeCDC)'s HIV, STD and Viral Hepatitis Program to assist Maine HIV prevention and care planners and others interested in HIV epidemiology. The profile focuses on three core questions:

1) What are the sociodemographic characteristics of the general population in Maine?
2) What is the scope of HIV in Maine?
3) What are the indicators of risk for HIV infection in Maine's population?

The profile additionally examines populations of special interest to Maine's Ryan White program and the continuum of HIV care in the state.

In 2014, Maine's population was an estimated 1.3 million. More than 36 percent of Maine residents lived in its two southern-most counties, York and Cumberland. Fifty-one percent of Maine's population was female, and 96 percent of Maine's population identified as non-Hispanic White. Individuals of any race who identified their ethnicity as Hispanic/Latino made up approximately one percent of the population. Approximately one-third of Maine's population was over 55 years old.

During 2014, there were 59 newly diagnosed cases of HIV reported to the MeCDC. Of those, 14 percent were cases of stage 3 HIV infection (AIDS). As of December 31, 2014, there were an estimated 1,680 individuals living with diagnosed and reported HIV disease (PLWHA) residing in Maine. Of these, 46 percent were infected with HIV (stages 1, 2 or unknown) and 54 percent were infected with AIDS (HIV stage 3).

In 2014, the estimated rate of reported HIV disease in Maine was 126.3 per 100,000 (95 percent CI: 120.3 – 132.3), a significant increase from the 2005 rate of 70.4 per 100,000 (95 percent CI: 65.9 – 74.9). This increase in HIV prevalence may be due to several factors, including increased HIV testing, improved disease reporting and data collection, and longer lifespans among PLWHA.

In 2014, the majority of new HIV diagnoses were among males (70 percent). Eighty-two percent of the total 1,680 PLWHA in Maine were male; 18 percent were female.

Approximately 56 percent of new HIV diagnoses in 2014 were among non-Hispanic White individuals, 36 percent were among non-Hispanic Black/African-American individuals, and 7 percent were among individuals of Hispanic/Latino ethnicity. Ninety-five percent of new HIV diagnoses in Maine in 2014 were among individuals over the age of 30.

African-Americans accounted for 13 percent of Maine PLWHA overall. Approximately five percent of PLWHA in Maine were of Hispanic/Latino ethnicity. Approximately 10 percent of Maine PLWHA were born outside the U.S. In 2014, both Black/African-American and Hispanic/Latino populations in Maine experienced a disproportionately high rate of HIV disease.

Among PLWHA in Maine 58 percent were likely to have been infected through unprotected male-to-male sex, 10 percent through injection drug use and 4 percent through a combined risk of male-to-male sex

and injection drug use. Eleven percent of all known infections were likely transmitted via high-risk heterosexual contact; this was most frequent mode of identified transmission for HIV positive women (41 percent).

Approximately one-third of all Maine PLWHA were living in the Cumberland Public Health District (PHD) at the time of their HIV/AIDS diagnosis. Additionally, 58 percent of individuals newly diagnosed with HIV in 2014 were residing in the Cumberland PHD.

Between 2005 and 2014, an estimated 187 HIV positive individuals died in Maine. Fifty-two percent of these deaths were due to causes other than those directly related to HIV.

Population level estimates of certain behaviors or diseases known to be associated with HIV transmission can assist in understanding trends and changes in HIV risk. These include HIV testing, sexual risk behaviors, sexually transmitted diseases, viral hepatitis and injection drug use.

According to the 2012 Behavioral Risk Factor Surveillance System (BRFSS), an estimated 3 percent of Maine adults reported engaging in HIV risk behaviors, including intravenous drug use, giving/receiving money or drugs in exchange for sex and/or engaging in anal sex without a condom in the 12 months prior to the survey. According to the 2013 BRFSS, approximately 32 percent of Maine adults reported they had ever received an HIV test.

In 2014, there were 3,531 cases of chlamydia reported to the MeCDC for a rate of 265.5 cases per 100,000 individuals. Rates were highest among women, adolescents and young adults. During the same year there were 237 cases of gonorrhea reported to the MeCDC and the rate was17.8 cases per 100,000 individuals. Rates of gonorrhea were highest among men and young adults aged 20-29. There were 21 cases of syphilis reported to the MeCDC in 2014.

Viral hepatitis shares common modes of transmission with HIV, and HIV positive individuals are particularly at risk for viral hepatitis infection. In 2014, there were 31 acute cases of hepatitis C and 1,426 cases of chronic hepatitis C reported in Maine. The rate of chronic hepatitis C has been increasing Maine over the past five years.

Injection drug use is a risk factor for acquiring and/or transmitting HIV. At the end of 2014, there were 168 Maine PLWHA who were known to have likely acquired the disease via injection drug use, representing just over 10 percent of Maine PLWHA. According to data from the Maine Department of Health and Human Services (DHHS), Office of Substance Abuse and Mental Health Services, 4,390 individuals admitted to substance abuse treatment in Maine reported injection drugs as their primary drug(s) of abuse. Of these, approximately 25 percent also reported sharing needles.

Engaging in certain types of unprotected male-to-male sexual contact can place individuals at a higher risk for acquiring HIV from, or transmitting HIV to, sexual partners. MSM make up the majority of PLWHA in Maine (58 percent) and nationally. MSM also made up the largest proportion of cumulative new diagnoses of HIV disease in Maine from 2010 through 2014.

High-risk heterosexual contact can also place an individual at increased risk for HIV. In 2014, an estimated 11 percent of Maine PLWHA likely acquired the disease through high-risk heterosexual contact. High-risk sexual contact includes contact with a partner who uses injection drugs, is a bisexual male and/or is HIV positive. High-risk sexual contact was a more common mode of HIV transmission among female and Black/ African-American PLWHA in Maine.

The Ryan White HIV/AIDS Program (RW) works with States to provide services to individuals who do not have sufficient health care coverage or financial resources to cope with HIV disease. The State of Maine receives grant funding from the Heath Resources Service Administration (HRSA) to administer RW Part B services that cover core medical and support services for people with HIV/AIDS. HRSA has identified youth 13 to 24 years, injection drug users, substance users other than injection drug users and women as populations requiring special attention for RW program planning and resource allocation.

Youth ages 13 to 24 are a population of special concern for HIV planning and prevention because they experience several significant risk factors related to HIV—including higher-risk sexual behaviors, substance abuse and lack of access to health care—at higher rates than other age groups. In 2014, 17 percent of new HIV diagnoses in Maine in were among this age group.

The number of HIV positive individuals in Maine *currently* using illicit drugs is unknown. According to the 2012-2013 National Survey on Drug Use and Health (NSDUH), approximately 11.3 percent (95 percent CI: 9.49 – 13.50) of Maine residents over age 12 reported using a least one illicit drug in the month preceding the survey. Young adults age 18 to 25 had the highest rate of substance use in Maine.

In 2014, approximately 18 percent of Maine PLWHA were female. Female PLWHA in Maine were more racially diverse and were also more likely to have acquired HIV via high-risk heterosexual contact or injection drug use compared to male PLWHA.

Engagement in appropriate HIV medical care reduces morbidity and mortality among PLWHA. In 2013, more than 96 percent of individuals newly diagnosed with HIV were linked to HIV care within three months of their diagnosis. Among individuals diagnosed with HIV in Maine and living in the state as of the end of 2013, approximately 62 percent were in HIV care and 52 percent were considered virally suppressed.

Health care coverage is an important factor in receiving timely and appropriate HIV care. In 2014, approximately 60 percent Maine PLWHA were enrolled in the State's AIDS Drug Assistance Program (ADAP). Of these enrollees, 96 percent had some type of health insurance coverage at some point during 2014.

Despite medical advances and focused HIV prevention and care programs, HIV continues to have a harmful impact on the health and well-being of Maine people. Because a significant number of new infections are occurring in Maine even as HIV-related deaths decline, HIV prevalence is slowly but steadily increasing. Continued work in HIV prevention and care services remains important in promoting the health of all Maine residents.

INTRODUCTION

Background

This epidemiological profile is designed to provide a comprehensive and thorough description of populations in the state of Maine infected with Human Immunodeficiency Virus (HIV) or at risk of HIV infection. The profile was developed by the Maine Center for Disease Control and Prevention (MeCDC), HIV, STD and Viral Hepatitis Program to assist Maine HIV prevention and care planners and others interested in HIV epidemiology. This profile was designed to serve as a planning tool to help identify present and future needs, set priorities for activities that support individuals living with diagnosed HIV/AIDS (PLWHA) and reduce HIV-related morbidity and mortality in Maine.

The goals of this profile, as suggested by the U.S. Centers for Disease Control and Prevention (CDC), are as follows:

- Provide a thorough description of HIV among various population groups within the state.
- Describe the current status of PLWHA in the state and provide some understanding of what the distribution of HIV in Maine may look like in the future.
- Identify characteristics of the general population and of populations who are living with, or at high risk for, HIV in Maine, and who may need primary and secondary prevention or care services.
- Provide information required to conduct needs assessments and gap analyses.

To meet these goals, the epidemiological profile is divided into three sections. Section 1 will address three essential epidemiological questions:

1) What are the sociodemographic characteristics of the general population in Maine?
2) What is the scope of HIV in Maine?
3) What are the indicators of risk for HIV infection in Maine's population?

Section 2 will address issues of special interest relative to Maine's Ryan White Part B grant, focusing on an exploration of populations of special concern to Ryan White programs and services. Section 3 will provide an overview of the continuum of HIV care in Maine.

The following document is a five-year update to the 2009 Maine HIV Epidemiological Profile. It includes HIV data reported through December 31, 2014 unless otherwise noted.

Methods and Data Sources

This document relies primarily on disease data reported to the MeCDC by healthcare providers and laboratories in accordance with Maine's Rules for the Reporting of Notifiable Conditions. The document also considers local and national research concerning HIV risk behaviors and seroprevalence as well as U.S. Census data. Table 1 summarizes the sources of data used within this profile. A more detailed description of each data source is included in Appendix A.

Where possible, data are presented by sociodemographic characteristics and county and/or Maine Public Health District (PHD). MeCDC's current policy is to limit reporting where there are five or fewer individuals within a given group and the underlying population is less than 5,000. In these instances,

individual cell numbers may be suppressed or categories and/or years may be combined to allow for trend analysis. Figures regarding HIV/AIDS prevalence and new diagnoses are based on data reported to MeCDC as of November 12, 2015.

Table 1. Data sources for the 2015 Maine HIV Epidemiological Profile

Section/Question	Data Source
SECTION 1/Question 1: What are the characteristics of Maine's population?	U.S. Census Bureau, American Community Survey 5-year estimates, 2010-2014
	U.S. Census Bureau, American Community Survey 1-year estimates, 2014
	U.S. Census Bureau, Population Division, Population Estimates Program, 2014
	U.S. Census Bureau, State and County Quick Facts
	U.S. Census Bureau, Census 2000 Summary File 3
SECTION 1/Question 2: What is the scope of HIV in Maine?	Maine electronic HIV/AIDS Reporting System (eHARS) database
SECTION 1/Question 3: What are the indicators of risk for HIV/AIDS in Maine?	Maine electronic HIV/AIDS Reporting System (eHARS) database
	Sexually Transmitted Disease Management Information System (STD*MIS)
	National Electronic Disease Surveillance System (NEDDS)
	U.S. Census Bureau, Population Division, Population Estimates Program
	Behavioral Risk Factor Surveillance System (BRFSS), 2012 and 2013
	Maine Integrated Youth Health Survey (MIYHS), 2013
	Web Infrastructure for Treatment Systems (WITS)
	Evaluation Web (HIV testing)
SECTION 2: Special questions and considerations for Maine's Ryan White HIV/AIDS Program	Maine electronic HIV/AIDS Reporting System (eHARS) database
	National Survey on Drug Use and Health (NSDUH), 2012-2013
	Maine Integrated Youth Health Survey (MIYHS), 2013
SECTION 3: HIV Care in Maine	CAREWare (data for the Maine AIDS Drug Assistance Program)
	Maine electronic HIV/AIDS Reporting System (eHARS) database

SECTION 1: CORE EPIDEMIOLOGICAL QUESTIONS

Question 1: Characteristics of Maine's population

Examining the general characteristics of Maine's population provides context for understanding HIV in the State. This section will consider geographic, demographic, and socioeconomic data that describe Maine's population.

Geographic Information

With a land area of 35,385 square miles and a population of approximately 1.3 million, Maine is a geographically large but sparsely populated state. Maine's overall population density is considerably lower than that of the United States as a whole. In 2014, Maine's statewide population density was 41 individuals per square mile, while the overall population density of the U.S. was 87 individuals per square mile.

According to data from the 2010 U.S. Census, approximately 39 percent of Maine's residents lived in urban communities (defined as those with populations more than 50,000), while 61 percent lived in rural communities. Maine's population reflects a very different distribution of rural to urban residents compared to the United States generally. According to the most recent decennial U.S. Census, in 2010, about 80 percent of Americans lived in urban areas.

Many Maine residents live in areas with small numbers of healthcare providers and facilities. According to the Health Resources and Services Administration (HRSA), 87,578 Maine residents live in areas designated as primary care Health Professional Shortage Areas (HPSAs)[i], and 50 communities in Maine are designated as Medically Underserved Areas (MUAs) or Medical Underserved Populations (MUPs).[ii] Large geographic areas of western, northern and northeastern Maine are designated as MUAs.[1]

Maine experienced very low population growth over the last five years. The U.S. Census estimates that Maine's total population grew just 0.1 percent from 2010 to 2014, making it one of the slowest growing states in the nation.[2]

Maine is made up of 16 counties which vary considerably in population. In 2014, approximately 36 percent of Maine residents lived in Maine's two southernmost counties, York and Cumberland. Piscataquis County in north central Maine was the least populated county with just 1.3 percent of the state's total population. Maine's counties and corresponding populations are listed in Table 2 and displayed geographically in Figure 1.

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[i] Health Professional Shortage Areas (HPSAs) are designated as such by HRSA. There are three categories of HPSA designation based on the health discipline that is experiencing a shortage: 1) primary medical; 2) dental; and 3) mental health. For each discipline category, there are three types of HPSA designations based on the area or population group that is experiencing the shortage: 1) geographic area; 2) population group; and 3) facility. A geographic HPSA indicates that the entire area may experience barriers in accessing care, while a population HPSA indicates that a particular subpopulation of an area (e.g., homeless or low-income) may be underserved. Finally, a facility HPSA designation is granted to a facility that primarily cares for an underserved population. The primary factor used to determine a HPSA designation is the number of health professionals relative to the population with consideration of high need.

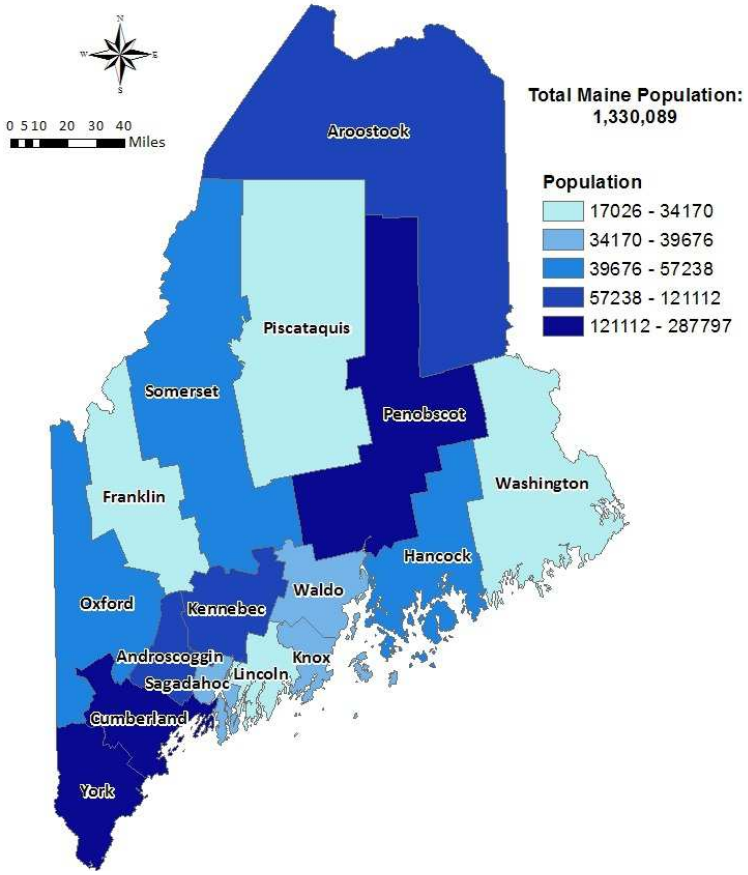
[ii] Medically Underserved Areas (MUAs) and Medically Underserved Populations (MUPs) are designated as such by HRSA. MUAs and MUPs are areas or populations that have too few primary care providers, high infant mortality, high poverty, and/or high older adult population.

Table 2. Population count and distribution of Maine counties, 2014

County	Population count	Percent (%) of population
Cumberland County	287,797	21.6 %
York County	200,710	15.1 %
Penobscot County	153,414	11.5 %
Kennebec County	121,112	9.1 %
Androscoggin County	107,440	8.1 %
Aroostook County	69,447	5.2 %
Oxford County	57,238	4.3 %
Hancock County	54,696	4.1 %
Somerset County	51,163	3.8 %
Knox County	39,676	3.0 %
Waldo County	39,051	2.9 %
Sagadahoc County	35,045	2.6 %
Lincoln County	34,170	2.6 %
Washington County	31,808	2.4 %
Franklin County	30,296	2.3 %
Piscataquis County	17,026	1.3 %
TOTAL	1,330,089	100 %

U.S. Census Bureau. Population Division, 2014 Annual Population Estimates

Figure 1. Population of Maine by county, 2014



Source: U.S. Census Bureau. Population Division, 2014 Annual Population Estimates

Maine has eight Public Health Districts (PHDs). Some districts are composed of single counties and others include multiple counties. Maine also has a Tribal Health District which encompasses the state's five tribal communities located in Aroostook, Penobscot and Washington counties. These districts were created by the Maine Department of Health and Human Services (DHHS) in 2007 as part of an effort to establish a coordinated, regionally-based public health system in the state. The eight districts, and their corresponding populations, are listed below in Table 3.

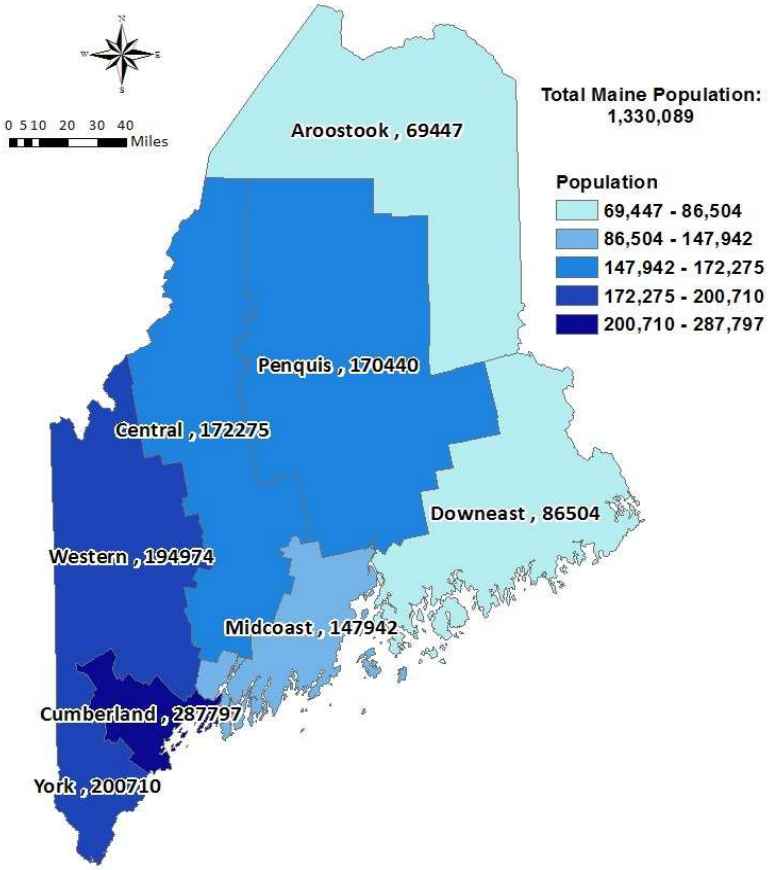
Table 3. Population of Maine public health districts, 2014

Public Health District	Population	Percent (%) of State's Population
York (District 1)	200,710	15.1 %
Cumberland (District 2)	287,797	21.6 %
Western (District 3)	194,974	14.7 %
Midcoast (District 4)	147,942	11.1 %
Central (District 5)	172,275	13.0 %
Penquis (District 6)	170,440	12.8 %
Downeast (District 7)	86,504	6.5 %
Aroostook (District 8)	69,447	5.2 %

U.S. Census Bureau, Population Division, 2014 Annual Population Estimates

Figure 2 presents a geographic display of Maine's PHD boundaries and their respective populations. Accounting for more than fifth of the state's population, the Cumberland PHD is the most populous. The Aroostook PHD with 69,447 residents is the least populous district.

Figure 2. Population of Maine by PHD, 2014



Source: U.S. Census Bureau. Population Division, 2014 Annual Population Estimates

Demographic Information

Age and Sex

Table 4 shows the distribution of Maine's 2014 population by age group and sex. In 2014, the median age of Maine residents was 44.2 years, several years older than that of the nation (37.7 years).[3] Adults over 55 years old accounted for more than one-third of Maine's total population, while youth under 25 years accounted for approximately 28 percent. Fifty-one percent of Maine's population was female.

Table 4. Population of Maine by age group and sex, 2014

Age Group	Males	Females	Total (Age)	Percent (%) of State Population
<15	108,156	102,748	210,904	15.9 %
15-19	42,145	39,711	81,856	6.2 %
20-24	40,282	38,557	78,839	5.9 %
25-29	39,061	38,829	77,890	5.9 %
30-34	36,964	37,805	74,769	5.6 %
35-39	35,766	36,837	72,603	5.5 %
40-44	40,743	42,093	82,836	6.2 %
45-49	45,313	47,105	92,418	6.9 %
50-54	52,885	55,207	108,092	8.1 %
55+	209,956	239,926	449,882	33.8 %
Total (Sex)	651,271	678,818	1,330,089	100%

Source: U.S. Census Bureau, Population Division

Race and Ethnicity

According to data from the 2010 U.S. Census, Maine is among the least racially diverse states in the nation, despite experiencing a 66 percent increase in its racial and ethnic minority population since 2000.[4] Table 5 shows the population distribution of both Maine and the U.S. by race and ethnicity according to U.S. Census Bureau's 2014 Annual Population Estimates. As Table 5 indicates, the majority of Maine's population identified as non-Hispanic White (94.4 percent). Maine residents of other races accounted for 4.2 percent of the state's population and individuals of any race who identified their ethnicity as Hispanic/Latino made up 1.3 percent of Maine's population. In contrast, in 2014, non-Hispanic Whites made up approximately 62 percent of the United States' total population and 21 percent of U.S. residents identified their ethnicity as Hispanic/Latino.

Table 5. Population of Maine and the United States by race and ethnicity, 2014

Race/ethnicity	Maine		United States	
	Count	Percent (%)	Count	Percent (%)
White*	1,255,527	94.4 %	197,870,516	62.1 %
Black or African American*	15,453	1.2 %	39,528,225	15.0 %
American Indian/ Alaska Native*	8,266	0.6 %	2,349,923	0.9 %
Asian*	13,583	1.0 %	16,786,720	6.4 %
Native Hawaiian /Pacific Islander*	316	0.02 %	545,734	0.2 %
Two or More Races*	18,281	1.4 %	6,388,399	2.4 %
Hispanic/Latino (any race)	16,935	1.3 %	55,387,539	21.0 %

* *Non-Hispanic/Latino*

Source: U.S. Census Bureau, Population Division

While the population of Maine is racially and ethnically homogenous overall, some areas of the state are more racially and ethnically diverse. As indicated in Table 6, the Cumberland PHD, which includes Maine's largest metropolitan area (Portland) and the entirety of Cumberland County, is home to Maine's largest Black/African-American, Asian and Hispanic/Latino populations. The Downeast and Aroostook PHDs are home to Maine's largest American Indian populations.

Table 6. Maine PHDs by racial/ethnic group (number and percent distribution), 2014

	York	Cumber-land	Western	Mid-coast	Central	Penquis	Downeast	Aroostook
White*	190,254	261,907	182,113	141,684	164,103	160,612	80,780	65,622
	95%	91%	93%	96%	95%	94%	93%	95%
Black /African-American*	1,367	8,141	4,364	840	965	1,417	550	543
	1%	3%	2%	1%	1%	1%	1%	1%
American Indian/Alaska Native*	590	846	735	556	815	1,886	1,841	1,245
	<1%	<1%	<1%	<1%	1%	1%	2%	2%
Asian*	2,394	6,245	1,423	1,059	1,356	1,786	773	351
	1%	2%	1%	1%	1%	1%	1%	1%
Native Hawaiian/ Pacific Islander*	56	67	66	31	63	59	10	41
	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%
Two or more races*	2,729	4,989	3,352	1,998	2,638	2,528	1,260	874
	1%	2%	2%	1%	2%	2%	2%	1%
Hispanic/ Latino (any race)	3,320	5,602	2,921	1,774	2,335	2,152	1,290	771
	2%	2%	2%	1%	1%	1%	2%	1%

**Non-Hispanic/Latino*
Source: U.S. Census Bureau, Population Division

Region of Birth

According the U.S. Census American Community Survey, in 2014 an estimated 3.7 percent of Maine residents were born in a country other than the United States (Figure 4). This represents an increase from 2.9 percent in 2000.[5] Nationally in 2014, 13.3 percent of the overall U.S. population was born outside of the U.S. (Figure 3), an increase from 11.1 percent in 2000.[6]

Figure 3. US residents by region of birth, 2014

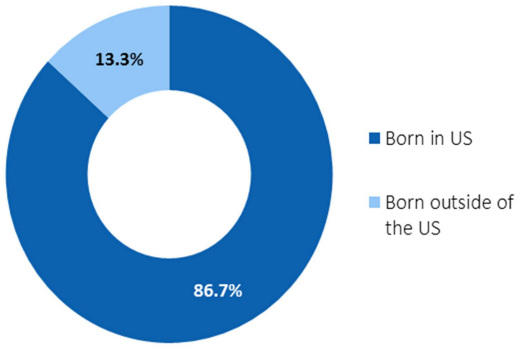
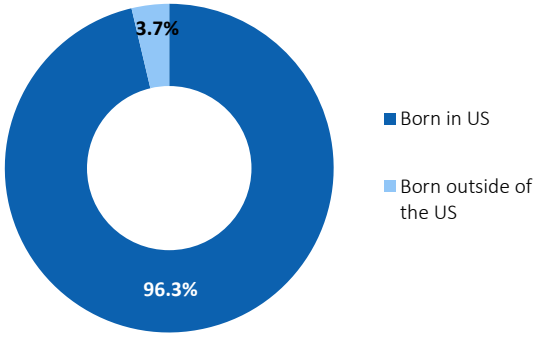


Figure 4. Maine residents by region of birth, 2014



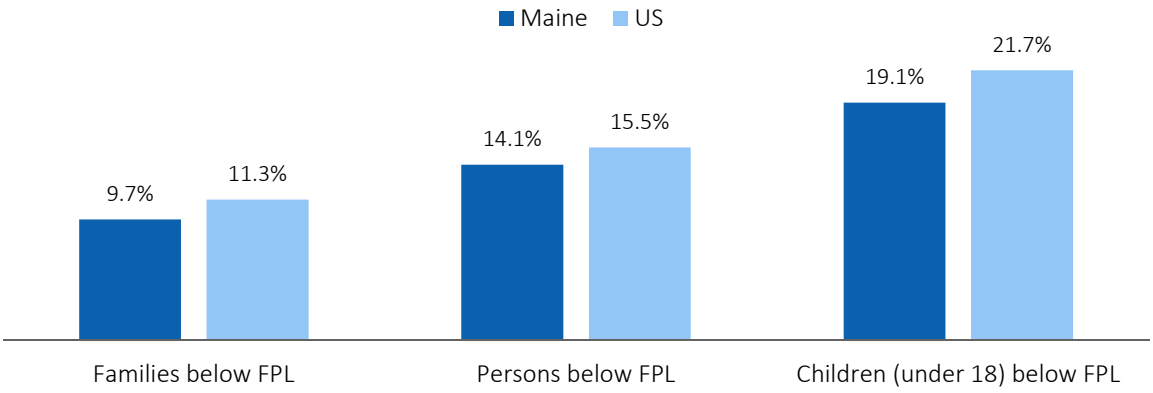
Source: U.S. Census Bureau, 2014 American Community Survey 1-Year Estimates

Socioeconomic Information

Poverty

In 2014, the federal poverty level (FPL) for the 48 contiguous U.S. states was $11,670 in annual income for an individual and $23,850 in annual income for a family of four.[7] As illustrated in Figure 5, in 2014, the estimated proportion of Maine residents living below the FPL was 14.1 percent—slightly below the national estimate of 15.5 percent. Maine's median annual household income during 2009-2013 (the latest time period for which data is available), was about $4,500 lower than that of the U.S. overall ($48,458 per year versus $53,046 per year, respectively).[8]

Figure 5. Average poverty rates, Maine and US, 2014



Source: U.S. Census Bureau, 2014 American Community Survey 1-Year Estimates

During the five-year period from 2010-2014, 10 Maine counties had a higher average proportion of residents living below the FPL than the state overall (Table 7). Piscataquis County had the highest proportion of residents living below the poverty level (19.9 percent), while York County in southernmost Maine had the lowest (10.6 percent).

Table 7. Proportion of Maine residents living in poverty by county, 2010-2014

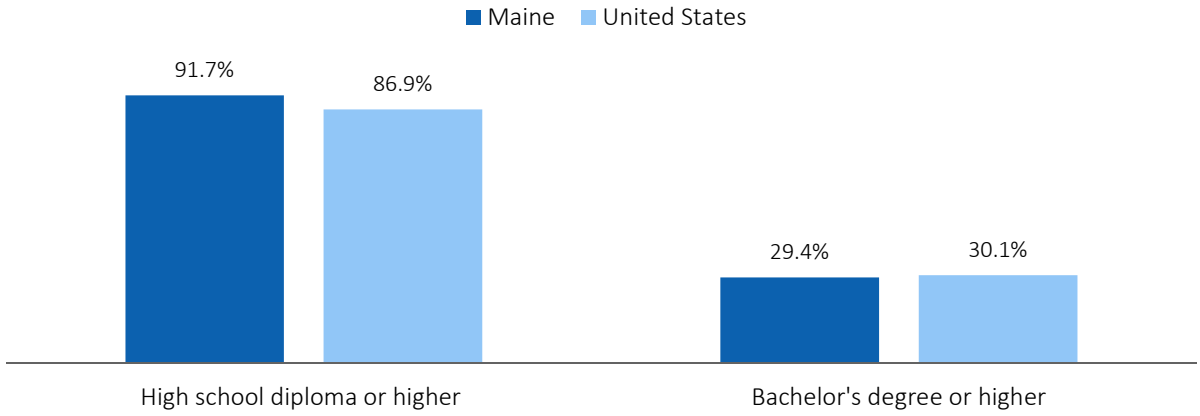
Maine County	Percent in Poverty (%)
York County	10.6%
Knox County	11.3%
Lincoln County	11.5%
Sagadahoc County	11.6%
Cumberland County	11.7%
Kennebec County	13.5%
Maine	**13.9%**
Hancock County	14.1%
Franklin County	15.3%
Oxford County	15.9%
Androscoggin County	16.1%
Waldo County	16.7%
Penobscot County	16.9%
Aroostook County	17.1%
Somerset County	17.1%
Washington County	19.0%
Piscataquis County	19.9%

Source: U.S. Census Bureau, 2010 – 2014 American Community Survey 5-Year Estimates.

Educational Attainment

According to the U.S. Census Bureau's American Community Survey, in 2014, an estimated 91.7 percent of adults (25 years and older) living in Maine had completed high school. This was larger than the US proportion of 86.9 percent during the same time period. Figure 6 compares the proportion of high school and college graduates in Maine and the US in 2014.

Figure 6. Educational attainment among adults over 25, Maine and the US, 2014



Source: U.S. Census Bureau, 2014 American Community Survey 1-Year Estimates.

Like poverty, educational attainment in Maine varied by county. Table 8 provides a breakdown by county of the average proportion of residents who completed high school and college during the five year period from 2010-2014. Aroostook and Somerset counties had the lowest proportion of high school and college graduates, respectively. Cumberland County had the highest proportion of both high school and college graduates.

Table 8. Educational attainment among Maine adults over 25 by county, 2010-2014

Maine county	Percent (%) high school diploma* or higher	Percent (%) bachelor's degree or higher
Aroostook County	86.3%	17.0%
Somerset County	87.4%	15.7%
Washington County	87.5%	20.2%
Androscoggin County	88.6%	19.9%
Piscataquis County	89.0%	18.2%
Oxford County	89.9%	18.8%
Penobscot County	90.7%	24.2%
Kennebec County	90.9%	23.9%
Maine	**91.3%**	**28.4%**
Franklin County	91.9%	24.5%
Waldo County	91.9%	29.0%
York County	92.0%	29.1%
Lincoln County	92.7%	32.3%
Knox County	93.3%	30.7%
Hancock County	93.4%	32.6%
Cumberland County	93.8%	42.0%

** Or equivalent*

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates.

Health Insurance Coverage

Health insurance coverage is an important indicator of access to preventive care and other health services. Table 9 provides a breakdown of Maine's uninsured population by age, gender and race/ethnicity. Comparisons with U.S. insurance figures are also included.

Table 9. Proportion uninsured, Maine and the United States, 2014

	Percent (%) uninsured, Maine	Percent (%) uninsured, United States
AGE		
Children (under 18 years)	6.3%	6.0%
Young Adults (19 to 25 years)	17.4%	20.4%
Adults (18 to 64 years)	14.2%	16.3%
Older Adults (65 years and older)	0.2%	0.9%
SEX		
Male	**11.2%**	**12.9%**
Female	**9.2%**	**10.5%**
RACE AND HISPANIC/LATINO ORIGIN		
White	9.9%	10.4%
Black or African American	12.4%	13.6%
American Indian and Alaska Native	19.8%	23.1%
Asian	18.2%	10.6%
Native Hawaiian and Other Pacific Islander	Not Available	13.5%
Some other race	**9.5%**	26.1%
Two or more races	**12.0%**	10.4%
Hispanic or Latino (of any race)	**12.7%**	**23.5%**
TOTAL	10.1%	11.7%

Source: U.S. Census Bureau, 204 1-Year Estimates American Community Survey

As Table 9 indicates, a higher proportion of Maine young adults (aged 19 to 25 years), American Indian/Alaska Native residents and Asian-American residents were without health insurance coverage compared to other subpopulations in the state. Additionally, a larger proportion of male residents in Maine were uninsured compared to female residents.

Table 10 details the types of insurance coverage held by Maine residents in 2014. According to data from the U.S. Census Bureau's American Community Survey, the majority of Maine residents—about two-thirds—were covered by private insurance plans, and nearly 38 percent were covered by publically-funded insurance. These insurance categories are not mutually exclusive; individuals may have multiple coverage types simultaneously.

Table 10. Insurance coverage in Maine by type, 2014

Health Insurance Type*	Percent (%)
PRIVATE HEALTH INSURANCE	66.5%
Employment-based health insurance	53.0%
Direct-purchase health insurance	13.5%
TRICARE/military health coverage	3.3%
PUBLIC COVERAGE	37.9%
Medicare coverage	21.1%
Medicaid/means-tested public coverage	20.9%
VA Health Care	3.6%
UNINSURED	10.1%

** Note: Individuals may hold multiple types of coverage simultaneously. Categories are not mutually exclusive.*

Source: U.S. Census Bureau, 2014 American Community Survey 1-Year Estimates

Key Points

In 2014:

- The majority of Maine's population resided in rural areas. Maine's most densely populated areas were in the central and southern areas of the state.
- A large geographic portion of Maine is considered by HRSA to be medically underserved.
- Maine's population was 1,330,089, up 0.1 percent from 2010.
- More than one-third of Maine's population was over age 55 and 28 percent was under age 25.
- Maine's population was predominantly White and non-Hispanic/Latino. Less than six percent of Maine residents identified as a race or ethnicity other than non-Hispanic White.
- 14.1 percent of Mainers were living below the FPL, a lower proportion than in U.S. overall (15.5 percent).
- Ten of Maine's 16 counties had poverty rates above the state's overall rate.
- 91.7 percent of Maine adults over 25 years had at least a high school education, while more than 29 percent had a college education or higher.
- Approximately 10 percent of Maine residents did not have health insurance, compared to approximately 12 percent of the U.S. population.
- Lack of insurance was highest among American Indian/Alaska Native, Asian-American residents and young adult residents of Maine.
- Among insured Maine residents, private health insurance was the most common insurance type.

Question 2: What is the scope of HIV in Maine?

Question 2 examines the extent and impact of HIV in Maine, including the number, distribution and rate of HIV infection in the state. Data are also examined by demographic characteristics including sex, age, race/ethnicity, region of residence at HIV/AIDS diagnosis, mode of HIV transmission and region of birth.

HIV Data Sources and Limitations

HIV infection is a notifiable condition in Maine. Healthcare providers and clinical laboratories are required by law to report information about HIV to the MeCDC. Information provided by clinical entities includes patient demographics such as age, sex, race, HIV risks (if known) and region of residence as well as information about disease status and progression. These data form the core of HIV surveillance data in Maine.

Although processes are in place to ensure that disease reports are completed in a timely and accurate manner, disease report data are imperfect. There are several limitations to Maine's HIV surveillance data which may impact its overall accuracy and completeness. Of note:

- Maine HIV data only include information about individuals who have been tested for HIV and been reported to the MeCDC. Individuals who are living with HIV in Maine but are not aware of their infection are not included in prevalence estimates and counts of new diagnoses.

- Positive HIV tests reported to the MeCDC do not always distinguish between individuals being diagnosed for the first time and those previously diagnosed with HIV outside of the United States. HIV diagnoses counted as new within a given year may therefore actually include both those truly being diagnosed for the first time, and those who were previously diagnosed internationally but are receiving their first diagnosis of HIV within the United States.

- Data on mode of HIV transmission are based on a diagnosed individual's self-report of HIV risk factors. Individuals may not disclose, or may inaccurately disclose, information on HIV risk for a variety of reasons, including social stigma regarding certain HIV risk behaviors.

- Maine has recently undertaken efforts to improve the quality of data on deaths among HIV positive individuals. As this process is ongoing, it may further impact estimates of HIV prevalence in the future.

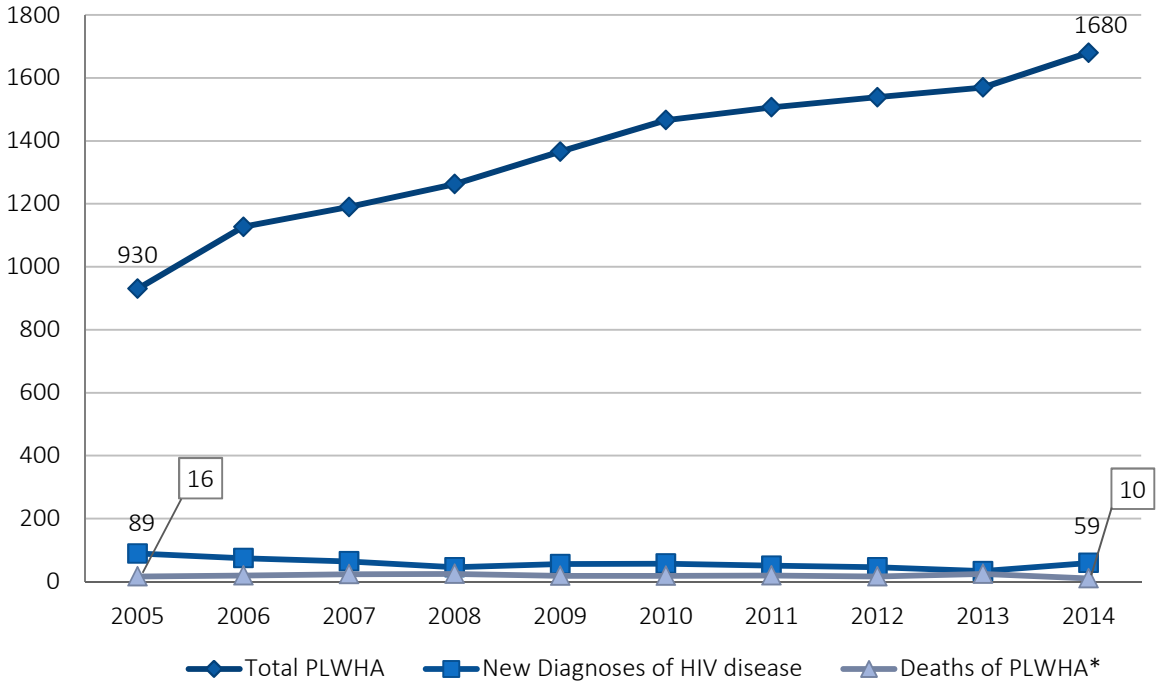
Due to these limitations, the HIV data reported here represent *estimates*. Finally, readers are cautioned that all HIV data from 2014 should be considered preliminary, given the possibility of delays in case and clinical data reporting.

Overall HIV Prevalence and New Diagnoses in 2014

During 2014, there were 59 new diagnoses of HIV (all stages) reported to the MeCDC. Of those, eight individuals (13.6 percent) were diagnosed with stage 3 HIV infection (AIDS). In 2014, the rate of newly diagnosed HIV infections was 4.4 (95 percent CI: 3.3 - 5.6) per 100,000 individuals. From 2005 through 2014, the average number of HIV diagnoses per year was 57.1. The number of new diagnoses per year

was relatively stable during this time period (Figure 7). While Maine's rate of diagnosis is significantly lower than the United States, the stability in Maine's yearly diagnoses rate reflects national trends.[9] Figure 7 illustrates trends in new HIV diagnoses, total HIV cases and HIV deaths in Maine from 2005 through 2014.

Figure 7. Number of deaths, new HIV diagnoses and total PLWHA in Maine, 2005-2014



** Death counts are limited to individuals known to have died in Maine and exclude cases who died in other states or are missing data on location of death. The number of deaths for 2013 and 2014 should be considered preliminary and incomplete due to delays in reporting and availability of federally maintained death data.*
Source: Maine electronic HIV and AIDS Reporting System (eHARS)

In 2014, there were 1,680 individuals living with diagnosed and reported HIV disease (any stage) residing in Maine. The estimated rate of HIV disease during 2014 was 126.3 (95 percent CI: 120.3 - 132.3) cases per 100,000 people. The 2014 rate of HIV disease represents a significant increase since 2005, when the estimated rate of HIV/AIDS in Maine was 70.37 (95 percent CI: 65.9 - 74.9) cases per 100,000 (see Table 31, Appendix B).

Figure 7 reflects the increasing overall number of PLWHA in Maine. There are several factors which can impact this figure. Higher prevalence estimates do not necessarily indicate that there are more individuals with HIV/AIDS residing in Maine. An increase in the number of PLWHA can reflect improvements and/or increases in HIV testing. If more testing occurs, especially among high-risk populations, more cases of HIV will be diagnosed. Improvements in HIV reporting, data collection and data quality can also impact prevalence estimates. Improvements in death ascertainment, for example, may result in a reduction in the overall prevalence estimate, while more timely and accurate reporting by healthcare providers may contribute to an increase. Finally, improvements in care for individuals with HIV/AIDS can prolong the

lives of HIV-positive people, raising the number of PLWHA alive at a given time. As Figure 7 illustrates, the number of deaths among PLWHA living in Maine has been consistently lower than the number of new HIV diagnoses in the state, which contributes to Maine's increasing HIV prevalence.

Demographic Characteristics of People Living in Maine with Diagnosed HIV/AIDS

This section highlights key demographic characteristics of Maine PLWHA. This information is critically important for prevention and care planning, as some demographic groups may be at higher risk for HIV acquisition or in particular need of HIV care services. The demographic information included in this section is presented in as much detail as possible, while protecting individual privacy and adhering to the MeCDC rules regarding small cell size. Additionally, sex in this section refers to an individual's assigned sex at birth. At this time, Maine is unable to thoroughly and accurately report on *current* gender identity, which may be different than sex at birth.

Sex

Aligning with national and historic trends, the majority of new diagnoses in Maine in 2014 were among individuals whose sex at birth was male. Of the 59 individuals diagnosed with HIV in 2014, 41 were male (69.5 percent), and 18 were female (31.6 percent). Males also make up the majority (82.1 percent) of all Maine PLWHA. Table 11 provides a breakdown of Maine PLWHA by sex and stage of disease.

Table 11. PLWHA in Maine by sex, 2014

	HIV (stage 1, 2 or unknown)		AIDS (HIV stage 3)		Total HIV (all stages)	
	Count	Percent (%)	Count	Percent (%)	Count	Percent (%)
Male	631	81.2%	749	82.9%	1380	82.1%
Female	146	18.8%	154	17.1%	300	17.9%
TOTAL	777	100%	903	100%	1,680	100%

Source: Maine Electronic HIV and AIDS Reporting System (eHARS)

Age

In 2014, the majority of new HIV diagnoses in Maine were among individuals over the age of 30 (76 percent). Only one new HIV diagnoses was a pediatric case (under 13 years old). In 2014, about 95 percent of Maine PLWHA were over the age of 30, and more than half were over the age of 50. Table 12 provides a breakdown by age group of both new HIV diagnoses and existing HIV cases in 2014.

Table 12. New HIV diagnoses and PLWHA by age group, 2014

	New HIV diagnoses (all stages)		Existing HIV cases (PLWHA)	
Age group	Count	Percent (%) of new Diagnoses	Count	Percent (%) of PLWHA
under 15	1	1.7%	9	<1%
15-19	2	3.4%	7	<1%
20-29	11	18.6%	67	4.0%
30-39	12	20.3%	223	13.3%
40-49	13	22.0%	446	26.5%
50-59	14	23.7%	624	37.1%
over 60	6	10.2%	304	18.1%
TOTAL	59	100%	1,680	100%

Source: Maine Electronic HIV and AIDS Reporting System (eHARS)

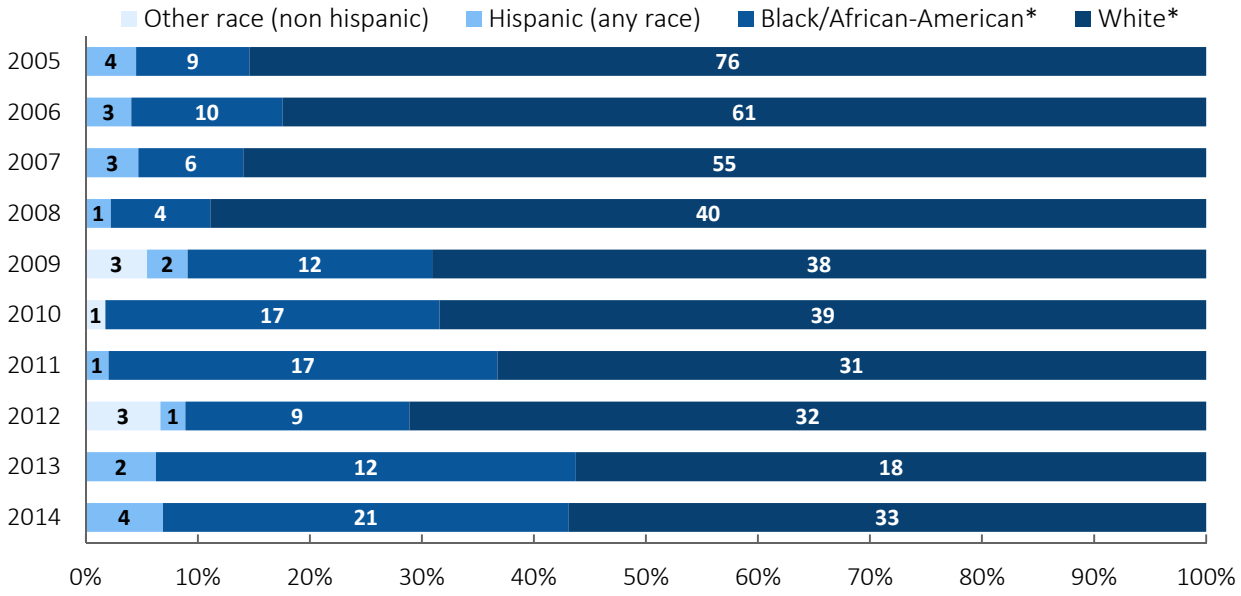
The age distribution of Maine PLWHA differed slightly by disease status as of 2014. Among individuals with HIV (stages unknown, 1 or 2), 93.2 percent were over 30 years of age; among individuals with AIDS (HIV stage 3), 98.8 percent were over 30 years of age (see table 33, Appendix B).

Race and Ethnicity

Of the 58 new adult HIV diagnoses in Maine in 2014, 33 (55.9 percent) were among non-Hispanic White individuals, 21 (35.6 percent) were among non-Hispanic Black/African-American individuals, and 4 (6.7 percent) were among individuals of Hispanic/Latino ethnicity. Sixty-one percent of females diagnosed in 2014 were non-Hispanic Black/African-Americans, reflecting an ongoing trend since 2010.

Figure 8 shows the trends in the number and distribution of new HIV diagnoses from 2005 – 2014 among individuals over the age of 13 years old by race and ethnicity.

Figure 8. Number and distribution of new HIV diagnoses (among ≥ 13 years old) by year and race/ethnicity, 2005 – 2014



**non-Hispanic*
Source: Maine Electronic HIV and AIDS Reporting System (eHARS)

In 2014, non-Hispanic White individuals made up the majority of both those living with diagnosed HIV (stages 1, 2 or unknown) and those living with AIDS (HIV stage 3). Table 13 provides a breakdown of PLWHA by race/ethnicity, disease status and adult/pediatric designation.

Table 13. Number and distribution of Maine PLWHA by disease status and race/ethnicity, 2014

	HIV (Stage 1, 2 or unknown)			AIDS (HIV stage 3)			Total (all stages)	
	Adult	Pediatric	% of HIV (adult + pediatric)	Adult	Pediatric	% of AIDS (adult + pediatric)	Total	Percent (%) of total
American Indian/ Alaska Native*	4	0	<1%	4	0	<1%	8	<1%
Asian*	1	0	<1%	7	0	<1%	8	<1%
Black/ African-American*	122	6	16.5%	94	3	10.7%	225	13.4%
Hispanic/Latino	41	1	5.4%	43	0	4.8%	85	5.1%
Multi-race*	7	0	<1%	2	0	<1%	9	<1%
White*	589	6	76.6%	745	5	83.1%	1,345	80.1%
Total	764	13	100.0%	895	8	100.0%	1,680	100.0%

** Non-Hispanic*
-- Suppressed due to small cell size
Source: Maine Electronic HIV and AIDS Reporting System (eHARS)

While 80 percent of PLWHA in Maine were non-Hispanic White, HIV/AIDS disproportionately affected Black/African-American and Hispanic/Latino(a) residents. The rate of HIV among Black/African-American residents was the highest in the state: 1,237.1 cases per 100,000. Additionally, forty-three percent of known pediatric HIV/AIDS cases in Maine were Black/African-American. Table 14 provides a breakdown of the distribution and rate of HIV infection in Maine by race and/or ethnicity.

Table 14. Estimate rate of diagnosed HIV infections (any stage) in Maine by race/ethnicity, 2014

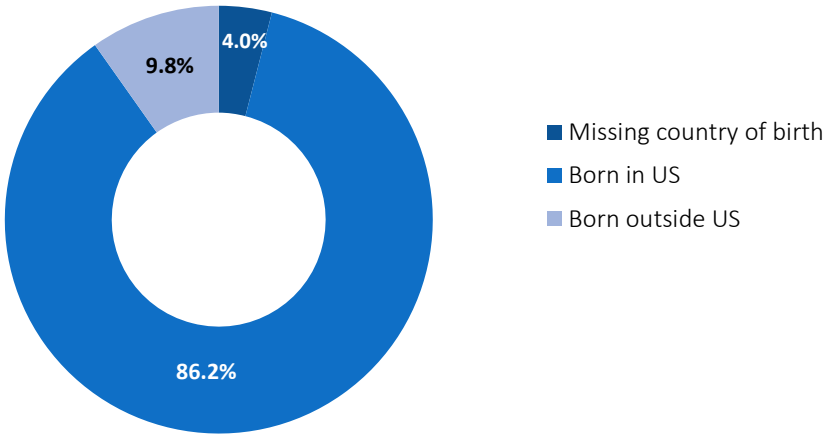
Race/ethnicity	Count	Percent (%)	Rate per 100,000	95% CI for rate
White	1,345	80.0%	107.9	102.1 - 113.6
Black /African-American	225	13.4%	1,237.1	1,075.5 - 1,398.8
Hispanic/Latino	85	5.1%	421.5	331.9 - 511.1
Other race or multi-race	25	1.5%	56.0	34.0 - 77.9

Source: Maine Electronic HIV and AIDS Reporting System (eHARS)

Region of Birth

In 2014, 1,449 of the 1,680 PLWHA in Maine were born in the U.S. (86.2 percent), and 165 (9.8 percent) were born outside the U.S. (Figure 9). According U.S. Census, in 2014 approximately 3.7 percent of Maine residents were born in a country other than the U.S. This suggests that Maine residents born outside the U.S. may be disproportionally impacted by HIV.

Figure 9. Region of birth among Maine PLWHA, 2014



Source: Maine Electronic HIV and AIDS Reporting System (eHARS)

Mode of HIV Transmission

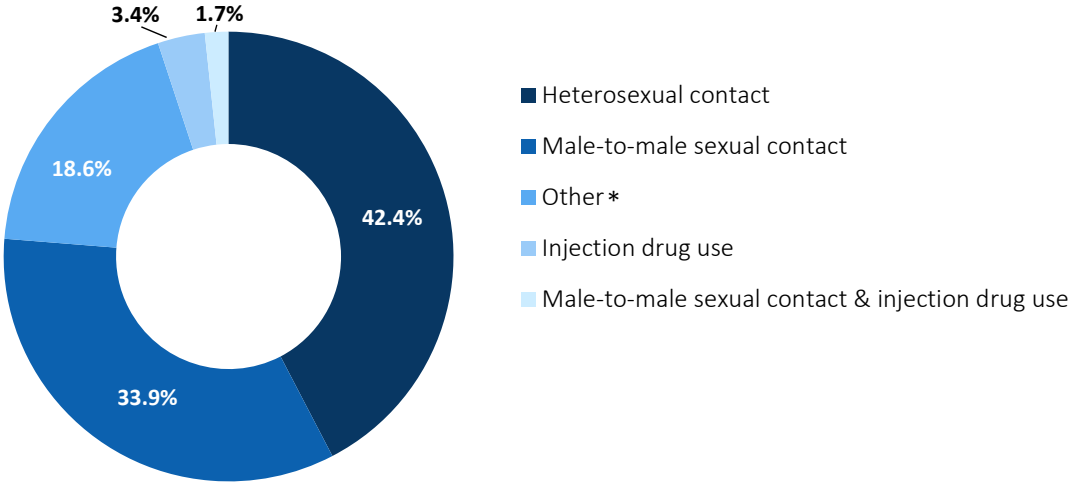
There are certain behaviors associated with an increased risk for the acquisition and/or transmission of HIV. Risk behaviors associated with HIV transmission include unsafe male-to-male sexual contact, sharing needles and other equipment in the course of injection drug use and high-risk sexual contact. High-risk heterosexual contact includes sexual contact with partners who are infected with HIV, inject nonprescription drugs or are bisexual males.

Mode of Transmission: Special Considerations

When an individual receives a new diagnosis of HIV, it is public health practice to gather additional information from that individual to better understand what circumstances and/or behaviors were most likely associated with the HIV transmission. In Maine, Disease Intervention Specialists (DIS) or healthcare providers gather this information through voluntary interviews with newly-diagnosed patients. Newly-diagnosed individuals may refuse to participate in risk interviewing, and those who do agree to participate may refuse to disclose their true risk factor(s) or may report their risk factors inaccurately or incompletely. Among other reasons, individuals might decline to provide risk factor information due to fears about the consequences associated with disclosing illegal or culturally stigmatized behaviors. Readers are therefore cautioned that inaccurate or incomplete disclosure of risk behavior information may artificially inflate the "no risk reported" (NRR) and "no risk identified" (NIR) transmission category counts, and deflate counts in the male-to-male sexual contact, injection drug use and combined male-to-male sexual contact/injection drug use transmission categories.

Figure 10 displays the distribution of new HIV diagnoses in 2014 by mode of transmission. Heterosexual transmission was the most common mode of transmission (42.4 percent) and male-to-male sexual contact was the second most common (33.9 percent). Two of the 59 diagnoses (3.4 percent) were determined to have injection drug use as the mode of transmission.

Figure 10. Distribution of new HIV (any stage) diagnoses by mode of transmission, 2014



Source: Maine Electronic HIV and AIDS Reporting System (eHARS)

** Includes transmission via clotting factor, transplant/transfusion, other confirmed risks, and those with no identified (NIR) or no reported risk (NRR).*

Table 15 provides a breakdown of Maine PLWHA by mode of HIV transmission and sex at birth. Among all PLWHA in Maine in 2014, the majority were likely to have been infected through unprotected male-to-male sexual contact. Heterosexual mode of HIV transmission accounted for 11 percent of all known infections but was the most frequent mode of identified transmission for female PLWHA (41 percent). Infection via injection drug use accounted for 19.5 percent of HIV infections among women living with HIV/AIDS.

Table 15. Number and distribution of Maine PLWHA by transmission category and sex, 2014

TRASMISSION CATEGORY	FEMALE		MALE		TOTAL	
	Count	% of Female	Count	% of Male	Count	% of Total
Male-to-male sexual contact	n/a	n/a	972	70.4%	972	57.9%
Injection drug use	58	19.3%	110	8.0%	168	10.0%
Male-to-male sexual contact & injection drug use	n/a	n/a	59	4.3%	59	3.5%
Heterosexual contact	123	41.0%	62	4.5%	185	11.0%
Perinatal transmission (diagnosed at any age)	6	2.0%	12	0.9%	18	1.1%
Other*	113	37.7%	165	12.0%	278	16.5%
Total	300	100.0%	1,380	100.0%	1,680	100.0%

**Includes transmission via clotting factor, transplant/transfusion, other confirmed risks, and those with no identified (NIR) or no reported risk (NRR).*

Source: Maine Electronic HIV and AIDS Reporting System (eHARS)

Perinatal transmission was a relatively rare mode of transmission in Maine. As of 2014, there were 18 individuals living in Maine known to have acquired HIV through perinatal transmission, accounting for approximately one percent of the total PLWHA.

People infected through contaminated blood products represent less than one percent of Maine PLWHA. Additionally, there have been no documented or reported instances of occupationally-acquired HIV infection in the state.

Region of Residence at HIV Diagnosis

This subsection describes the location of residence of Maine PLWHA at their time of HIV/AIDS diagnosis. Data in this subsection are presented by public health district (PHD) only, due to the very low numbers (<5) of HIV/AIDS cases diagnosed in some Maine counties.

Thirty-four of the 59 individuals (57. 6 percent) newly diagnosed with HIV in 2014 resided in the Cumberland PHD. The Penquis PHD was the only other PHD to have more than five HIV diagnoses among residents in 2014.

More than one-third of Maine PLWHA were living in the Cumberland PHD at the time of their HIV/AIDS diagnosis. Table 16 details the distribution of all Maine PLWHA by their PHD of residence at diagnosis. Figure 11 provides a geographic display of the PHD of residence at HIV diagnosis among PLWHA in Maine in 2014.

Table 16. Region of residence at HIV/AIDS diagnosis among Maine PLWHA, 2014

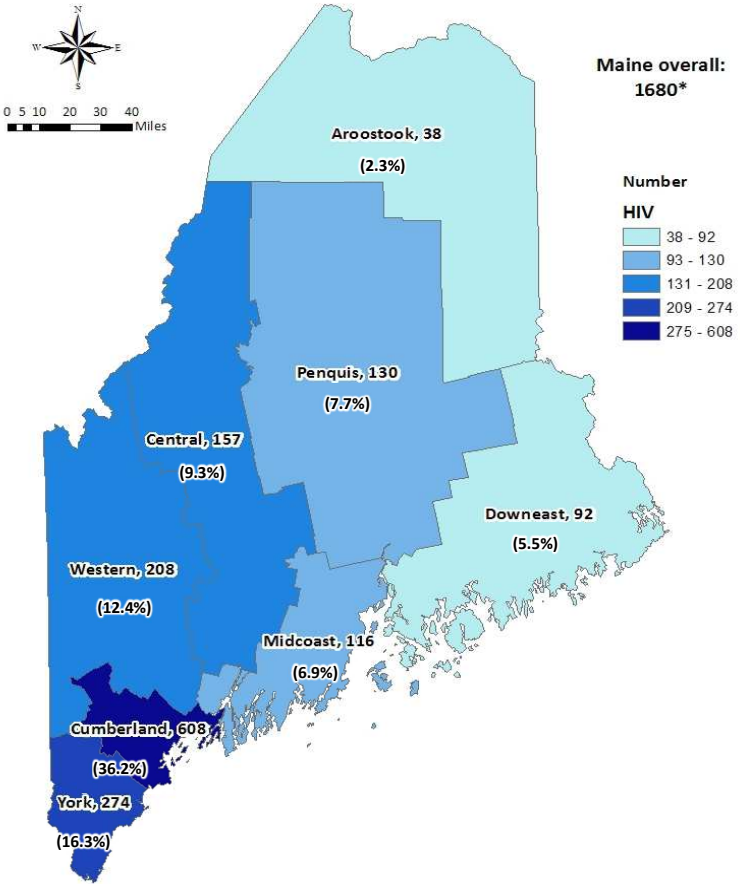
Public Health District*,†	HIV count	AIDS count	Total count	% of Total
Aroostook	17	21	38	2.3%
Central	71	86	157	9.3%
Cumberland	292	316	608	36.2%
Downeast	34	58	92	5.5%
Midcoast	54	62	116	6.9%
Penquis	54	76	130	7.7%
Western	106	102	208	12.4%
York	141	133	274	16.3%

**PHD of residence at the time of HIV/AIDS diagnosis*

† Missing residence: n = 57

Source: Maine Electronic HIV and AIDS Reporting System (eHARS)

Figure 11. PHD of residence at HIV/AIDS diagnosis among PLWHA in Maine, 2014



**Missing residence at diagnosis: n = 57*
Source: Maine Electronic HIV and AIDS Reporting System (eHARS)

The population of individuals living in the Cumberland PHD at the time of diagnosis was the most racially diverse in the state. Approximately 65 percent of the state's Black/African American PLWHA lived in the Cumberland PHD at the time of their HIV/AIDS diagnosis. Table 17 details the region of residence at HIV/AIDS diagnosis among Maine PLWHA by racial group.

Table 17. Region of residence at time of HIV/AIDS diagnosis among Maine PLWHA by race/ethnicity, 2014

	Hispanic/ Latino		White**		Black/ African-American**		Other race/ Multi-race**		Total*	
Public Health District[†]	N	%	N	%	N	%	N	%	N	%
Aroostook	--	--	29	2.2%	--	--	--	--	38	2.3%
Central	10	11.9%	132	10.2%	12	5.4%	--	--	157	9.3%
Cumberland	36	42.9%	420	32.6%	145	64.7%	7	28.0%	608	36.2%
Downeast	7	8.3%	79	6.1%	--	--	--	--	92	5.5%
Midcoast	--	--	105	8.1%	--	--	--	--	116	6.9%
Penquis	--	--	109	8.4%	16	7.1%	--	--	130	7.7%
Western	7	8.3%	177	13.7%	20	8.9%	--	--	208	12.4%
York	14	16.7%	239	18.5%	18	8.0%	3	12.0%	274	16.3%
Total*	84	100.0%	1,290	100.0%	224	100.0%	25	100.0%	1,623	2.3%

[†] *At time of HIV/AIDS diagnosis*

* *Missing residence at diagnosis: n = 57*

*** Non-Hispanic*

-- Suppressed due to small cell size

Source: Maine Electronic HIV and AIDS Reporting System (eHARS)

HIV/AIDS Deaths in Maine

For the purposes of this report, deaths among PLWHA in Maine were considered to be those deaths that occurred in Maine, regardless of where the individuals were diagnosed. In 2014, ten PLWHA were known to have died in Maine. Readers are cautioned, however, that this figure is preliminary and subject to change as additional death data are released by State and/or federal sources.

As illustrated in Figure 7 (p. 23), the number of deaths among people known to have HIV/AIDS in Maine has remained relatively steady over the past ten years. During 2005 through 2014, the average number of deaths per year among PLWHA was 19 and the average age at death was approximately 52 years old.

Table 18 provides a demographic breakdown of the cumulative deaths among PLWHA who died in Maine between 2005 and 2014.

Table 18. Cumulative deaths among Maine PLWHA by select demographic characteristic, 2005-2014

Demographic characteristic	Count	Percent (%) of total deaths
SEX		
Male	163	84.9%
Female	24	12.5%
AGE		
Under 50	77	40.1%
Over 50	109	56.8%
RACE		
White*	163	87.2%
African American*	13	7.0%
Other race/ethnicity	11	5.9%
TOTAL DEATHS	**187**	**100%**

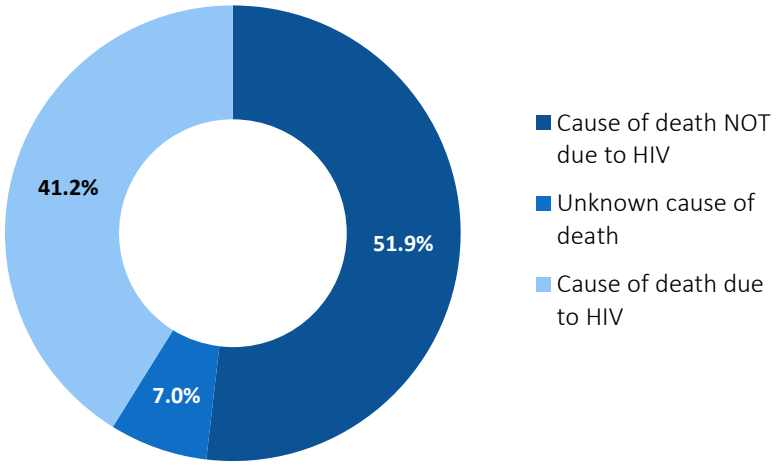
***** *Non-Hispanic/Latino*

NOTE: Data excludes individuals who died in a state other than Maine or for whom location at death was unknown.

Source: Maine electronic HIV and AIDS Reporting System (eHARS)

In the 10-year period between 2005 and 2014, the majority of deaths that occurred in Maine among PLWHA were due to causes other than those directly related to HIV. Figure 12 displays the relative proportions of HIV and non-HIV causes of death among PLWHA who died in Maine between 2005 and 2014. Among those with an HIV-related cause of death during this time period, the average age at death was 50.9 years old, while the average age at death for those with a cause of death not directly related to HIV was 52 years old (data not shown).

Figure 12. Cumulative causes of death among PLWHA in Maine, 2005-2014



Source: Maine Electronic HIV and AIDS Reporting System (eHARS)

Deaths among PLWHA in Maine

Data on deaths among HIV positive individuals in Maine are obtained by MeCDC's Office of Data, Research and Vital Statistics from death certificates. HIV surveillance staff link this death data to the State's eHARS database annually. In the year prior to this report, Maine also initiated efforts to improve the quality and completeness of death data for PLWHA by matching death records maintained at a federal level with the Maine eHARS database. At the time of writing, national-level death data were not yet available for 2013 and 2014, therefore the number of deaths reported for 2013 and 2014 in this report should be considered preliminary. Additionally, information on cause of death is not available from all sources of death data, resulting in a proportion of PLWHA for whom the cause of death is currently unknown.

Key Points

In 2014:

- 59 individuals were newly diagnosed with HIV (any stage) and reported to the MeCDC. Of these, eight were diagnosed with AIDS (HIV stage 3).
- There were 1,680 people estimated to be living with diagnosed HIV/AIDS in Maine. This figure does not include those who have not been tested and/or reported to the MeCDC.
- The majority of Maine PLWHA were male, as were the majority of individuals newly diagnosed. Approximately 37 percent of new HIV/AIDS diagnoses in 2014 were among females, and approximately 18 percent of Maine's total PLWHA were female.
- 76 percent of those newly diagnosed with HIV and 95 percent of PLWHA were 30 years of age and older.
- Of the 58 new adult HIV/AIDS diagnoses reported to the MeCDC in 2014, more than half were non-Hispanic White men. Black/African American women were the next largest group, accounting for 19 percent of new HIV diagnoses.
- The majority of PLWHA in Maine were non-Hispanic White (80.1 percent), followed by Black/African Americans (13.4 percent) and Hispanic/Latino individuals of any race (5.1 percent).
- Approximately 86 percent of individuals with diagnosed HIV/AIDS in Maine were born in the U.S.; just less than 10 percent were born outside the U.S.
- Approximately 58 percent of Maine PLWHA reported having been infected through unprotected male-to-male sex, 11 percent through heterosexual sex, 10 percent through injection drug use and 3.5 percent through a combination of male-to-male sex and injection drug use.

- Just more than 36 percent of Maine PLWHA were living in the Cumberland PHD at the time of their HIV/AIDS diagnosis.

- 10 people with HIV died in Maine in 2014. This figure should be considered preliminary due to delays in reporting and releasing of 2014 death data.

- In the 10-year period between 2005 and 2014, there was an average of 19 deaths among Maine PLWHA. Just more than half of these deaths were due to causes other than those directly related to HIV disease.

Question 3: What are the indicators of risk for HIV infection in Maine's population?

This section addresses factors associated with HIV risk in Maine, including HIV testing, sexual risk behaviors, sexually transmitted diseases, viral hepatitis and injection drug use.

Testing

HIV testing is a key component of reducing the spread of HIV. Testing allows individuals to know their HIV status, which in turn may positively impact an individual's decisions regarding healthcare treatment, sexual activity and injection drug use. HIV-infected persons who have not been tested and do not know that they are infected may not achieve viral suppression and/or avoid unsafe behaviors thereby placing others at risk for acquiring HIV.

The State of Maine participates in yearly surveillance of health behaviors among adults, including HIV testing and risk behaviors via the BRFSS survey. Information from the BRFSS provides a snapshot of HIV testing among the general adult population in Maine. Table 19 details responses to the HIV testing question included in the 2013 BRFSS survey (the last year for which data on HIV testing were available).

Table 19. Maine adults reporting ever received an HIV test, BRFSS, 2013

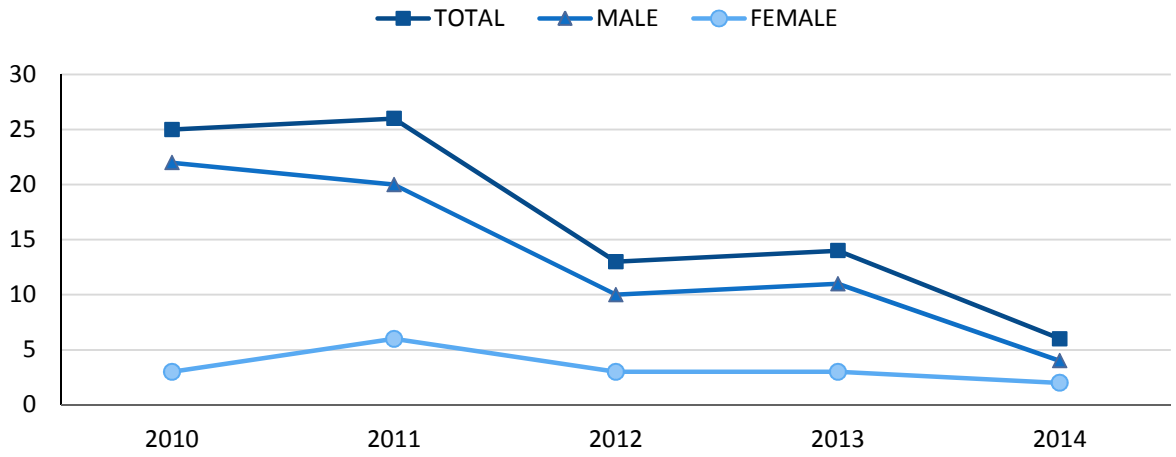
	Number	Percent (%)	95% CI
Yes	2,015	31.6%	30.2 - 33.0%
No	5,464	68.4%	67.0 - 69.8%

SOURCE: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health. BRFSS Prevalence & Trends Data [online]. 2015.

Data from HIV testing entities in Maine provide a closer look at HIV testing trends. There are four HIV counseling, testing and referral (CTR) subgrantees funded by the MeCDC HIV, STD and Viral Hepatitis Program that provide no-cost services to at-risk individuals at 19 sites throughout Maine. These sub-grantees include family planning agencies, STD clinics and community based organizations. Sub-grantees provide HIV testing, risk-reduction counseling, safer-sex supplies, educational materials and referrals for services.

In 2014, 2,340 HIV tests were performed at CTR sites in Maine. Six of these tests were positive.
In the five-year period between 2010 and 2014, 84 individuals tested by Maine CTR sites tested positive for HIV. Figure 13 shows the number of positive tests identified through *State-funded* CTR sites by year and gender from 2010 through 2014.

Figure 13. Positive HIV tests in Maine identified at State-funded CTR sites, 2010-2014



SOURCE: Maine CDC, Division of Infectious Disease, HIV,STD and Viral Hepatitis Program, Evaluation Web database

Although the majority of the positive tests occurring at Maine CTR sites between 2010 and 2014 identified truly new HIV cases, 33 percent of the positive tests were among individuals who were previously diagnosed with HIV. Individuals who are already aware of their HIV status may seek additional HIV testing for a variety of reasons, including documentation for service eligibility purposes.

HIV Risk Behaviors

According to the 2012 BRFSS (the most recent year in which the Maine survey included a question on HIV risk behaviors), an estimated 3.2 percent of Maine adults reported engaging in HIV risk behaviors in the 12 months prior to the survey. The 2012 BRFSS defined being "at risk for HIV transmission" as including any of the following: used intravenous drugs in the past year; was treated for a sexually transmitted disease in the past year; had given or received money or drugs in exchange for sex in the past year; and/or had anal sex without a condom in the past year. Table 20 provides a breakdown of survey respondents by age group and gender.

Table 20. HIV risk behavior among Maine adults by age group and sex, BRFSS, 2012

	Number reporting HIV risk behaviors (weighted)	Percent reporting HIV risk behaviors (%)
AGE GROUP		
18-34	21,654	2.1% (CI: 1.6% – 2.6%)
35-54	9,470	0.9% (CI: 0.7% – 1.2%)
55+	2,160	0.2% (CI: 0.1% – 0.3%)
SEX		
Male	19,113	1.9% (CI: 1.4% – 2.3%)
Female	14,230	1.4% (CI: 1.1% – 1.7%)

Source: Behavioral Risk Factor Surveillance System (BRFSS), 2012

CI = Confidence Interval

Note: Cells in the same category with overlapping CIs are not statistically different from one another

HIV risk behaviors among Maine youth is not specifically addressed by statewide behavioral surveillance, however the MIYHS—a biannual self-report survey of Maine kindergarten through 12th grade students—

measures condom use among Maine middle and high school students. In the 2013 MIYHS, 37.9 percent of Maine high school students responding to the survey reported they had *not* used a condom at their last sexual intercourse. Table 21 provides a breakdown of high school students reporting no condom use at their last sexual intercourse by gender, grade in school, race/ethnicity and sexual orientation.

Table 21. Students reporting no condom use at last sexual intercourse, MIYHS, 2013

Characteristic	Percent (%) reporting no condom use at last sexual intercourse
Overall	**37.9% (CI: 36.2%-39.6%)**
GENDER	
Female	41.7% (CI: 39.7% -43.7%)
Male	33.9% (CI: 31.8-36.0%)
GRADE	
9th	33.4% (CI: 30.1%-36.7%)
10th	33.5% (CI: 30.4%-36.6%)
11th	37.6% (CI: 35.0%-40.2%)
12th	41.7% (CI: 39.0%-44.3%)
RACE/ETHNICITY	
American Indian or Alaskan Native*	38.1% (CI: 29.4%-46.7%)
Asian*	44.0% (CI: 34.9%-53.0%)
Black or African American*	38.7% (CI: 29.8%-47.6%)
Hispanic/Latino(a)	45.8% (CI: 39.2%-52.3%)
Native Hawaiian or Other Pacific Islander*	44.6% (CI: 23.5%-65.6%)
White*	37.7% (CI: 36.0%-39.5%)
Multiple races*	37.5% (CI: 30.2%-44.7%)
SEXUAL ORIENTATION	
Heterosexual	36.0% (CI: 34.2%-37.74)
Gay/Lesbian	65.7% (CI: 56.9%-74.5%)
Bisexual	51.0% (CI: 47.0%-55.0%)
Not Sure	52.7% (CI: 45.0%-60.3%)

Source: Maine Integrated Youth Health Survey, 2013

**Non-Hispanic*

CI = Confidence Interval.

Note*: cells in the same category with overlapping CIs are not significantly different from one another.*

Sexually Transmitted Diseases

HIV and STDs share similar behavioral risk factors, therefore data on these diseases can provide some suggestion about the future direction of HIV in the state. Additionally, the presence of an STD can facilitate HIV transmission between sexual partners. Individuals infected with an STD are estimated to be two to five times more likely to acquire HIV compared to individuals who are not infected with an STD.[10] HIV-positive individuals who are infected with an STD are also more likely to transmit HIV to their sexual partners.

Like HIV, gonorrhea, chlamydia and syphilis are notifiable conditions in Maine. This section includes STD case reports received through December 31, 2014 Trend data for the previous five- or 10-year period (as available) are included to present a more comprehensive picture. Trends in reported cases of STDs can be

influenced by a number of factors, including changes in screening, diagnosis and reporting practices as well as a change in actual disease incidence. Due to the large numbers of STD cases reported without data on race and/or ethnicity, comparisons by race/ethnicity are not included.

Chlamydia and Gonorrhea

Chlamydia is the most frequently reported STD in the state. In 2014, there were 3,531 cases of chlamydia reported to the MeCDC, a case rate of 265.5 (95 percent CI: 256.7 - 274.2) per 100,000 individuals. Rates were highest among women, adolescents and young adults in 2014. Table 22 provides a breakdown of chlamydia cases reported to the MeCDC in 2014 by sex and age group.

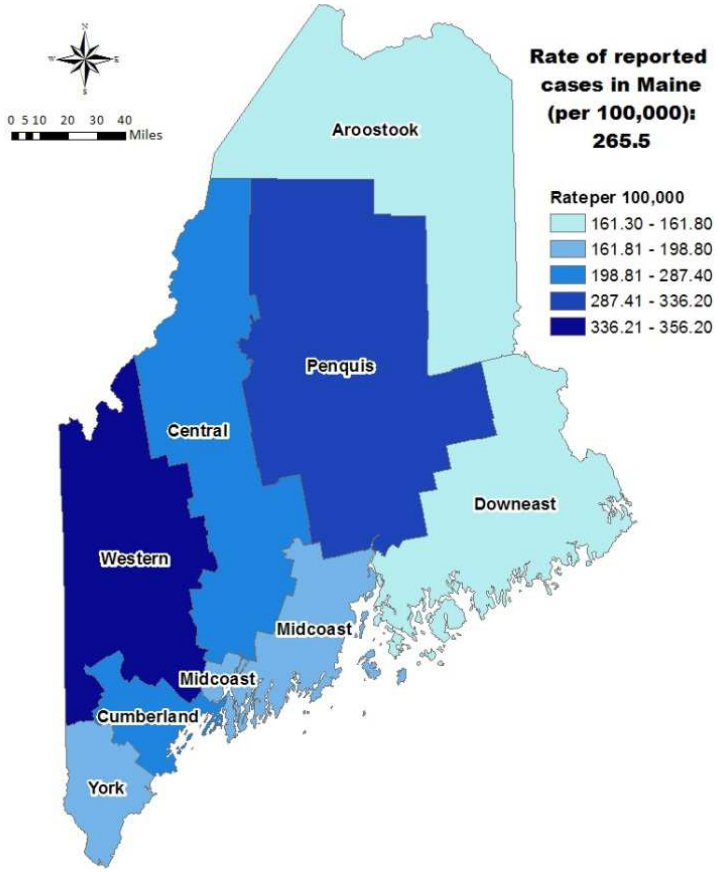
Table 22. Reported cases of chlamydia by sex and age, Maine, 2014

Demographic Characteristic	Cases	Percent (%) of cases	Rate (per 100,000)	95% CIs for rate (per 100,000)
SEX				
Male	1,050	29.7%	161.2	151.5 - 171.0
Female	2,479	70.2%	365.2	350.8 - 379.6
Unknown	2	<1%	n/a	n/a
AGE GROUP				
<15	20	<1%	9.5	5.3 - 13.6
15-19	928	26.3%	1,133.7	1,060.8 - 1,206.6
20-24	1,476	41.8%	1,872.2	1,776.7 - 1,967.7
25-29	640	18.1%	821.7	758.0 - 885.3
30-39	340	9.6%	230.7	206.2 - 255.2
40-54	108	3.1%	38.1	30.9 - 45.3
>54	11	<1%	2.4	1.0 - 3.9
Age Unknown	8	<1%	n/a	n/a

*SOURCE: Maine CDC, HIV, STD and Viral Hepatitis Program, STD*MIS*

In 2014, the rates of reported chlamydia cases were highest in the Western and Penquis PHDs and lowest in the Aroostook and Downeast PHDs. Figure 14 provides a geographic display of the case rate of chlamydia in Maine by PHD.

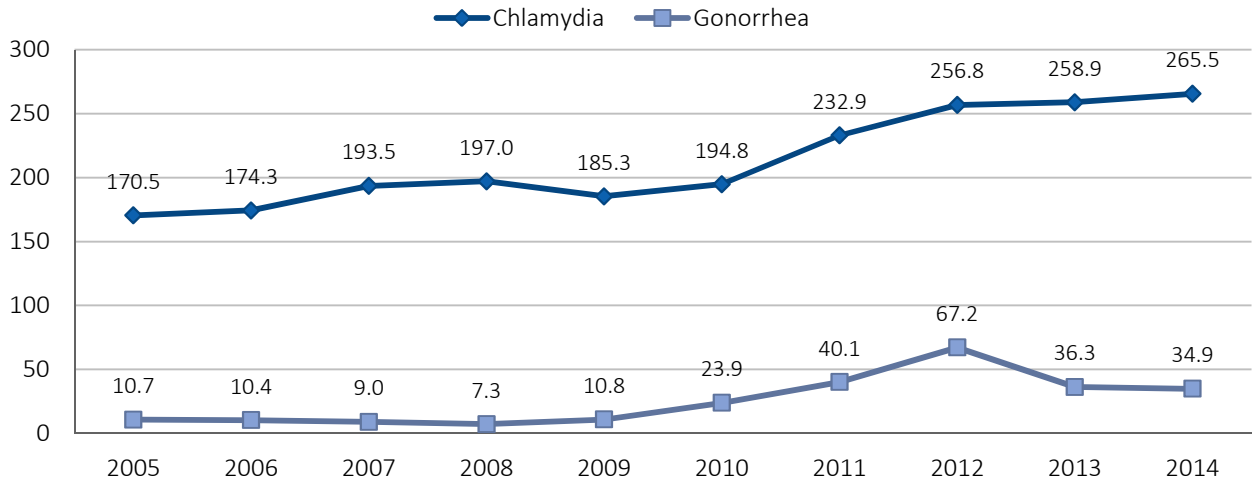
Figure 14. Rate (per 100,000) of reported cases of chlamydia by Maine PHD, 2014



*Source: Maine CDC, HIV, STD and Viral Hepatitis Program, STD*MIS*

As Figure 15 illustrates, the yearly rate of reported cases of chlamydia in Maine has grown significantly and relatively steadily over the past decade. The rate of reported cases of gonorrhea has followed less consistent trend.

Figure 15. Rate (per 100,000) of reported cases of chlamydia and gonorrhea in Maine by year, 2005 - 2014



*Source: Maine CDC, HIV, STD and Viral Hepatitis Program, STD*MIS*

In 2014, there were 237 cases of gonorrhea reported to the MeCDC, a case rate of 17.8 (95 percent CI: 15.5 - 20.1) per 100,000 individuals. The rate was highest among men and young adults in 2014 (Table 23). Additionally, the Western PHD (38 per 100,000; 95 percent CI: 29.3 - 46.6) and the Cumberland PHD (20.9 per 100,000; 95 percent CI: 15.6 - 26.1) had the highest rate of reported of gonorrhea in the state. The Aroostook PHD had the lowest rate. Table 23 provides a breakdown of gonorrhea cases reported by sex and age group.

Table 23. Reported cases of gonorrhea by select demographic characteristics, Maine, 2014

Demographic Characteristic	Cases	Percent (%) of Maine cases	Rate per 100,000	95% CI for Rate
SEX				
Male	137	57.8%	21.0	17.5 - 24.6
Female	98	41.4%	14.4	11.6 - 17.3
Unknown	2	0.8%	n/a	n/a
AGE AT DIAGNOSIS				
<15	2	0.8%	*	*
15-19	28	11.8%	34.2	21.5 - 46.9
20-24	74	31.2%	93.9	72.5 - 115.2
25-29	54	22.8%	69.3	50.8 - 87.8
30-39	43	18.1%	29.2	20.5 - 37.9
40-54	28	11.8%	9.9	6.2 - 13.5
>54	7	3.0%	*	*
Age unknown	1	0.4%	n/a	n/a

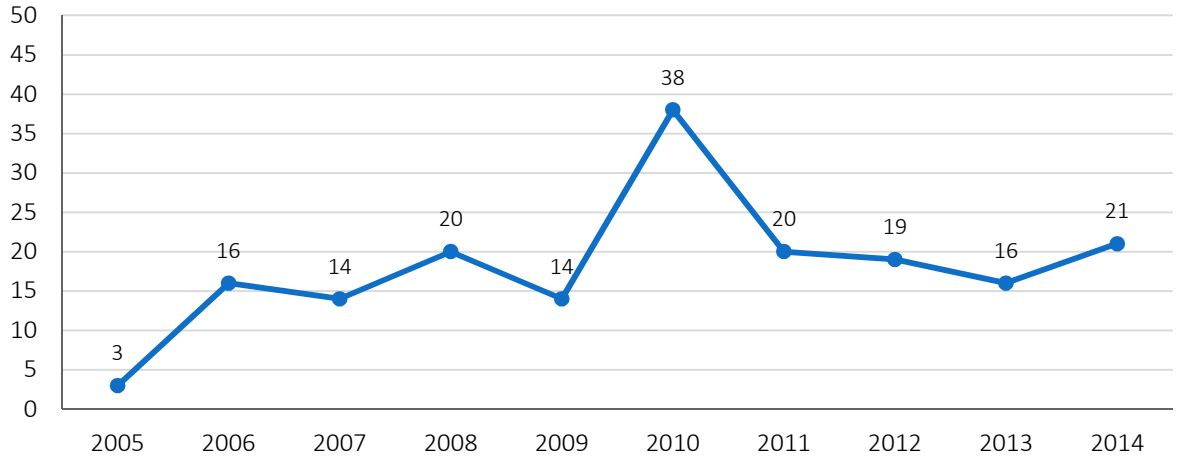
*SOURCE: Maine CDC, HIV, STD and Viral Hepatitis Program, STD*MIS*

** Rates are not included for ten or fewer events.*

Syphilis

Syphilis can pose serious health risks if left untreated and can facilitate the transmission of HIV infection between partners. Since 2005, the number of syphilis cases (primary, secondary and early latent) in Maine has ranged from a low of three cases in 2005 to a high of 38 cases in 2010 (Figure 16). In 2014, 21 cases of syphilis were reported to the MeCDC. Eighteen of the 21 reported syphilis cases were among males (86 percent). Similarly, 18 of the 21 cases reported in 2014 were among non-Hispanic White individuals. The Cumberland PHD had the highest number of reported cases among Maine's PHDs. The Central, Downeast and Aroostook PHDs had no reported cases of syphilis.

Figure 16. Number of reported cases of syphilis by year, Maine, 2005-2014



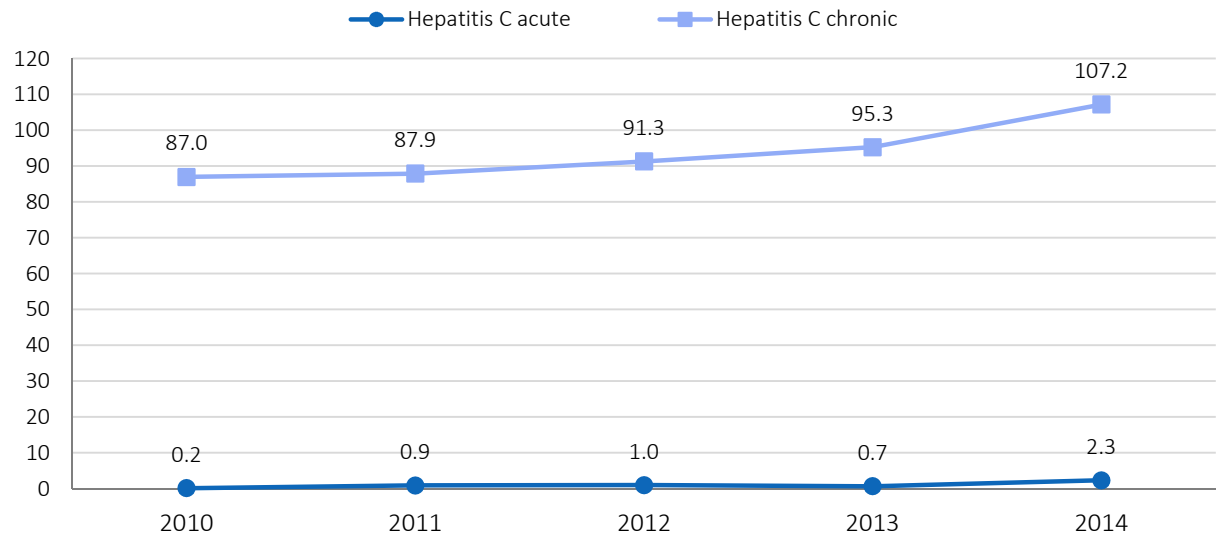
*SOURCE: Maine HIV, STD and Viral Hepatitis Program, STD*MIS*

Viral Hepatitis

According to the CDC, the most common causes of hepatitis in the U.S. are the hepatitis A virus (HAV), the hepatitis B virus (HBV) and the hepatitis C virus (HCV).[11] Viral hepatitis shares common modes of transmission with HIV. Hepatitis A, B and C can be transmitted through the sharing of contaminated drug injection equipment. Sexual contact with an infected person is also a risk factor for contraction of HAV and HVB. HCV is bloodborne and not commonly transmitted via sexual activity. HIV-positive individuals are particularly at risk for viral hepatitis infection. The CDC estimates that approximately 25 percent of people with HIV in the U.S. are co-infected with HCV, and about 10 percent are co-infected with HVB.[12] Hepatitis is a condition of particular concern for PLWHA, as the presence of HIV hastens the progression of disease and increases the risk of developing cirrhosis and end-stage liver disease. Data on HIV and viral hepatitis co-infection rates in Maine were not available for this report.

Hepatitis C is the most common form of viral hepatitis in Maine. In 2014, there were 31 reported acute cases of hepatitis C, representing an incidence rate of 2.3 (95 percent CI: 1.5 - 3.2) per 100,000 Maine residents. There were 1,426 reported cases of chronic hepatitis C, representing a prevalence rate of 107.2 (95 percent CI: 101.6 - 112.8) per 100,000. Hepatitis C chronicity is defined by a time period of lingering infection of more than 6 months post transmission.[13] Timely and appropriate treatment reduces the risk that an acute infection will become chronic.[14] Figure 17 illustrates trends in acute and chronic hepatitis C from 2010-2014.

Figure 17. Acute and chronic hepatitis C rates per 100,000 by year, Maine, 2010-2014



Source: Maine Center for Disease Control, Division of Infectious Disease

The yearly reported cases of acute and chronic hepatitis B in Maine have remained relatively stable from 2010 through 2014. In 2014, there were 12 reported cases of acute hepatitis B and 108 reported cases of chronic hepatitis B. The respective case rates for acute and chronic hepatitis B among Maine residents were 0.9 (95 percent CI: 0.4 - 1.4) and 8.1 (95 percent CI: 6.6 - 9.7) per 100,000. Males accounted for two-thirds of chronic hepatitis B cases and 58.3 percent of acute hepatitis B cases in 2014. Approximately half of the chronic hepatitis B cases reported in 2014 were in Cumberland County.

Hepatitis A is the least common form of hepatitis reported in Maine. The number of cases of HAV reported in Maine between 2010 and 2014 ranged from a low of six cases in 2011 to a high of 10 cases in 2013.

Injection Drug Use

Individuals who use injection drugs are at heightened risk for HIV infection due to their increased risk of sharing contaminated injection equipment. As of the end of 2014, there were 168 individuals with HIV (any stage) living in Maine who likely acquired the disease via injection drug use, representing approximately 10 percent of Maine PLWHA (see Table 13, section 2). An additional 59 individuals were likely to have acquired HIV (any stage) via a combination of male-to-male sexual contact and injection drug use. These counts are based on individual self-report through diagnostic interviewing and may underestimate the true number of PLWHA in Maine who acquired HIV via sharing contaminated injection equipment. Table 24 provides a breakdown of Maine PLWHA for whom the HIV mode of transmission was determined to be injection drug use by age, race and sex.

Table 24. Counts of Maine PLWHA with injection drug use mode of transmission by age group, race and sex, 2014

	20-29 years	30-39 years	40-49 years	50-59 years	60 + years	Total
RACE						
Hispanic/Latino	--	--	--	--	--	13
Black/ African-American *	--	--	--	--	--	21
White*	4	16	25	69	20	134
SEX						
Female	3	9	12	26	8	58
Male	2	11	20	59	18	110
Total	**5**	**20**	**32**	**85**	**26**	**168**

** Non-Hispanic*

-- Suppressed due to small cell size

SOURCE: Maine Electronic HIV and AIDS Reporting System (eHARS)

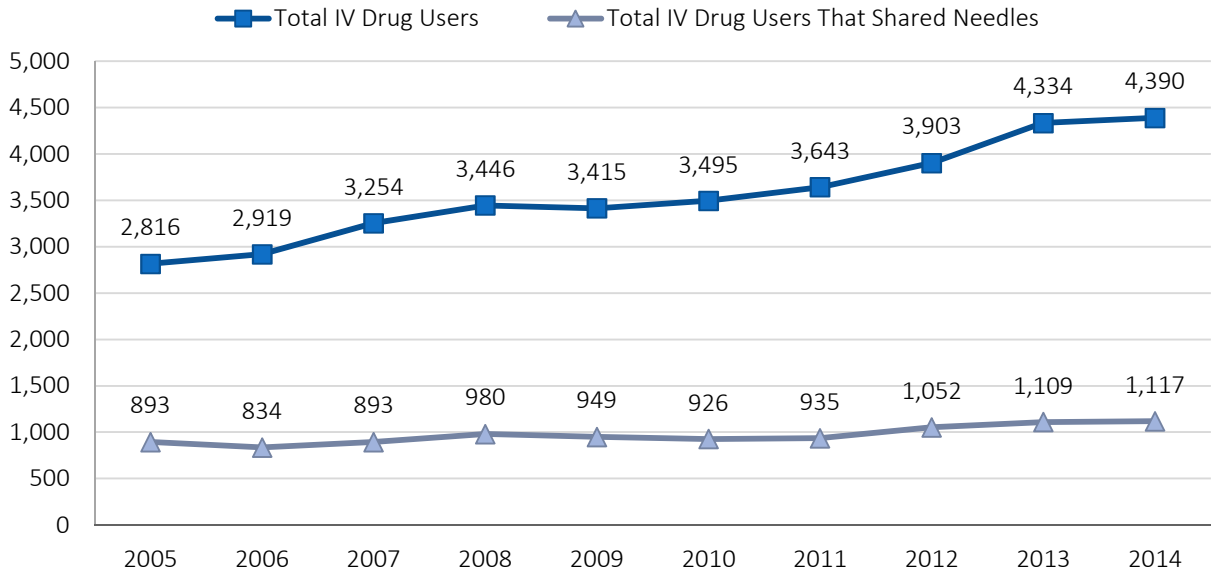
According to the University of Michigan's Monitoring the Future Survey—a on-going national study of substance use among American youth and young adults—about 1.6 percent of survey respondents between age 21 and 30 report having ever used injection drugs. Additionally, about 0.5 percent of survey respondents report having shared needles in the course of injection drug use.[15]

Additionally, data from the 2012-2013 National Survey on Drug Use and Health (NSDUH)—an annual survey sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA)—indicated that approximately 0.6 percent of the U.S. population (12 years and older) used heroin at least once during the year preceding the survey.[16]

Data reported to the Maine's Office of Substance Abuse and Mental Health Services show that the number of individuals admitted to substance abuse treatment facilities reporting injection drug use has been increasing over the past decade (Figure 18). While this trend may represent improvements in availability of treatment rather than an increase in the prevalence of injection drug use, the proportion of injection drug users who also reporting needle-sharing remains a particular concern.

In 2014, 1,117 of 4,390 injection drug users who were admitted for substance abuse treatment also reported sharing needles (25.4 percent), placing them at high risk for acquiring or transmitting HIV as well as other diseases, such as viral hepatitis (Figure 18). In 2015, the Maine Office of Substance Abuse and Mental Health Services began collecting data from substance abuse treatment providers on patients admitted to treatment who reported they were HIV positive. While these data are not available for the time period covered by this profile, it will be an important element in future Maine HIV Epidemiological Profiles.

Figure 18. Patients admitted to substance abuse treatment facilities in Maine reporting injection drug use and needle sharing, 2005-2014



Source: Maine Office of Substance Abuse and Mental Health, Web Infrastructure for Treatment Systems (WITS)

Male-to-Male Sexual Contact

Men who have sex with men (MSM) make up the majority of PLWHA in Maine (57.9 percent) and nationally.[17] In 2014, the majority of individuals in Maine who acquired HIV through male-to-male sexual contact were 50 years old or older (57.3 percent), reflecting an age distribution similar to Maine PLWHA overall. The racial distribution of individuals who acquired HIV via male-to-male sexual contact differed from that of Maine PLWHA overall. While Black/African-American individuals accounted for 13.4 percent of all Maine PLWHA in 2014, just 4.6 percent of PLWHA with a male-to-male sexual contact mode of transmission were Black/African-American. Table 25 provides the number and distribution of Maine PLWHA who acquired HIV via male-to-male sexual contact by disease status, age and race.

Table 25. Number and distribution among Maine PLWHA with male-to-male sexual contact mode of transmission by disease status and select demographic characteristics, 2014

	HIV count (stages 1,2 or unknown)	AIDS count (HIV stage 3)	Total count (all stages)	Percent (%) of Total
Total	**461**	**511**	**972**	**100.0%**
RACE/ETHNICITY				
Hispanic/Latino	19	22	41	4.2%
Black/ African American*	23	22	45	4.6%
White*	411	464	875	90.0%
Other race or multi-race*	7	3	11	1.1%
AGE GROUP				
19 and under	1	0	1	<1.0%
20-29	28	4	32	3.3%
30-39	88	31	119	12.2%
40-49	127	136	263	27.1%
50-59	156	205	361	37.1%
60 and over	61	135	196	20.2%

**Non-Hispanic*

Source: Maine Electronic HIV and AIDS Reporting System (eHARS)

MSM also made up the largest proportion (49.6 percent) of cumulative new diagnoses of HIV in diagnosed in Maine during the years 2010 through 2014. Individuals aged 40-49 made up the largest proportion of cumulative diagnoses with an MSM mode of transmission, a pattern which diverges from national trends. Nationally, young men aged 24 to 34 accounted for the largest proportion of new HIV diagnoses among MSM from 2008-2011. [18] Table 26 provides a breakdown of cumulative new diagnoses among MSM in Maine by age group and race for the years 2010 through 2014.

Table 26. Cumulative new diagnoses of HIV (any stage) among MSM in Maine by select demographic characteristic, 2010-2014

Select demographic characteristics	Count (n=121)	Percent (%)
AGE AT DIAGNOSIS		
under 19	3	2.5%
20-29	16	13.2%
30-39	30	24.8%
40-49	48	39.7%
50-59	19	15.7%
over 60	5	4.1%
RACE/ETHNICITY		
Hispanic (any race)	3	2.5%
Other race or missing race (non-Hispanic)	2	1.7%
Black/ African-American (non-Hispanic)	8	6.7%
White (non-Hispanic)	107	89.2%

**Non-Hispanic*

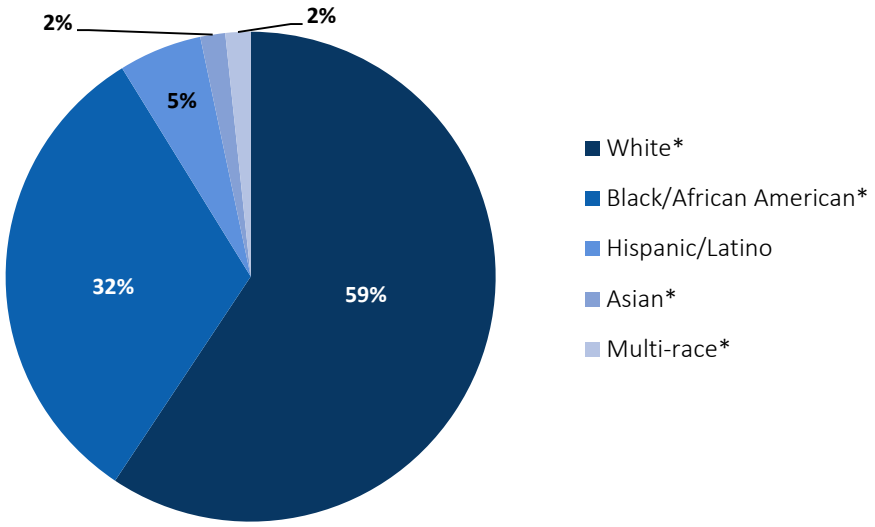
Source: Maine Electronic HIV and AIDS Reporting System (eHARS)

High-Risk Heterosexual Contact

Approximately 11 percent of Maine PLWHA acquired HIV via high-risk heterosexual contact. Over two-thirds of those with a high-risk heterosexual contact mode of transmission identified sex with an HIV infected partner as their likely HIV risk factor.

Individuals who acquired HIV via high-risk heterosexual contact were more likely to be Black/African-American than Maine PLWHA as a whole. In 2014, African-Americans accounted for 32 percent of PLWHA with a high-risk sexual contact mode of transmission (Figure 19), but made up 13.4 percent of Maine's total PLWHA. Figure 19 provides a breakdown of Maine PLWHA who acquired via high-risk heterosexual contact by race/ethnicity.

Figure 19. Maine PLWHA with heterosexual mode of transmission by race/ethnicity, 2014



N=182
Note: American Indian/Alaska Native are excluded due to a case count of 0
** Non-Hispanic*
Source: Maine Electronic HIV and AIDS Reporting System (eHARS)

Key Points

- According to the 2012 BRFSS, 3.2 percent of Maine adults engaged in HIV risk behaviors in the year prior to the survey.

- According to the 2013 MIYHS, 37.9 percent of Maine high school students reported they had not used a condom at their last sexual intercourse.

In 2014:

- There were 3,531 cases of chlamydia reported to MeCDC for a case rate of 265.5 (95 percent CI: 256.7 - 274.2) per 100,000 individuals. Rates of reported cases were highest among women, adolescents and young adults.

- There were 237 cases of gonorrhea reported to MeCDC; the case rate was 17.8 (95 percent CI: 15.5 - 20.1) per 100,000 individuals. Rates of reported cases were highest among men and young adults aged 20-29.

- There were 21 cases of syphilis were reported to MeCDC. Eighty-six percent of reported syphilis cases were among males.

- There were 1,426 reported cases of chronic hepatitis C and 31 reported acute cases of hepatitis C in Maine. The rate of chronic hepatitis C has been increasing in Maine over the past 5 years.

- There were 168 individuals with HIV (any stage) living in Maine who likely acquired the disease via injection drug use, accounting for approximately 10 percent of Maine PLWHA. An additional 59 (3.5 percent) likely acquired HIV via a combination of injection drug use and male-to-male sexual contact.

- There were 4,390 individuals admitted for substance abuse treatment in Maine who reported injection drugs as their primary drug of abuse. More than 25 percent of these individuals also reported sharing needles.

- Male-to-male sexual contact was the most common mode of HIV transmission among Maine PLWHA. Individuals who acquired HIV via male-to-male sexual contact were more likely to be non-Hispanic White than Maine PLWHA as a whole.

- Eleven percent of Maine PLWHA acquired HIV via high-risk heterosexual contact. Individuals who acquired HIV via high-risk heterosexual contact were more likely to be female and Black/African-American than Maine PLWHA overall.

SECTION 2: SPECIAL QUESTIONS AND CONSIDERATIONS FOR MAINE'S RYAN WHITE HIV/AIDS PROGRAM

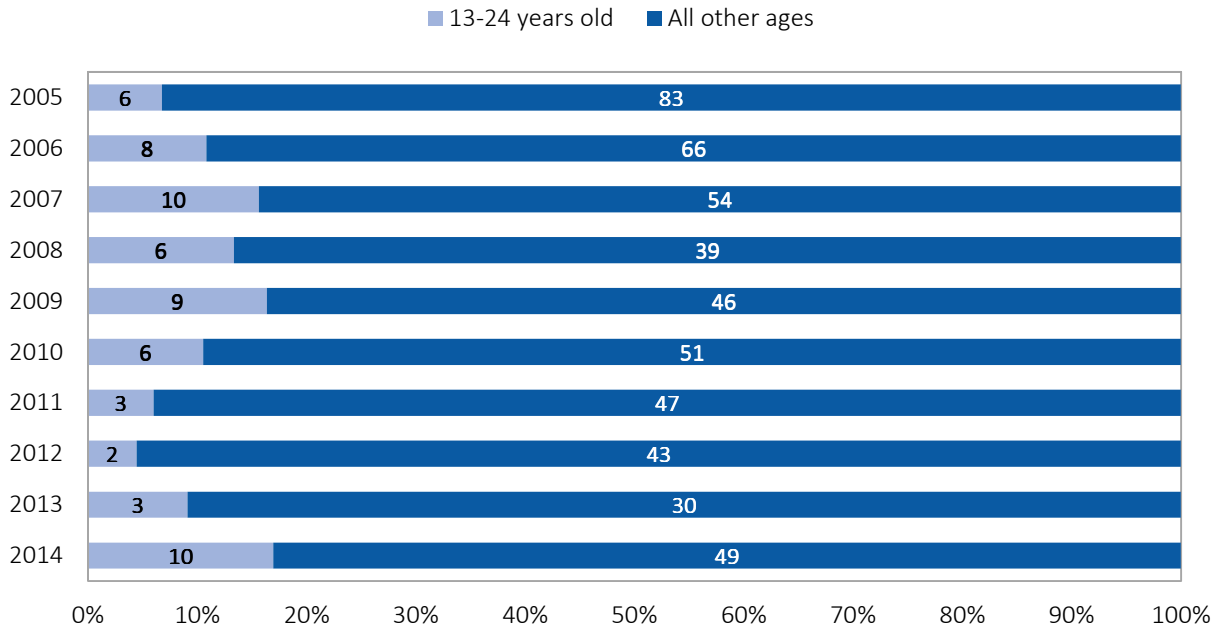
The Ryan White HIV/AIDS Program (RW) works with States to provide services to individuals who do not have sufficient health care coverage or financial resources to cope with HIV disease. The RW program is administered at a national level by the HIV/AIDS Bureau of the Health Resources and Services Administration (HRSA).

The State of Maine receives grant funding from HRSA to administer RW Part B services that support the AIDS Drug Assistance Program (ADAP), oral health care assistance, medical case management and food vouchers. HRSA has identified the following populations as requiring special attention for Ryan White program planning and resource allocation: youth and young adults age 13–24, injection drug users, substance users other than injection drug users and women. The following section provides additional information related to these populations of special concern.

Youth and Young Adults (13-24 years)

In 2014, 10 of the 59 new HIV diagnoses (any stage) in Maine in were among youth 13-24 (17 percent). Youth made up 11 percent of the cumulative new HIV diagnoses reported in Maine between 2005 and 2014. As illustrated in Figure 20, the number of youth diagnosed with HIV fluctuated during this time. New HIV diagnoses among youth did not follow a consistent trend.

Figure 20. New HIV diagnoses among Maine youth (as number and percent of total), 2005-2014



Source: Maine Electronic HIV and AIDS Reporting System (eHARS)

At the end of 2014, there were 27 people age 13 to 24 living with HIV (any stage) in Maine, representing 1.6 percent of all PLWHA in the state. Sixteen of the 27 known HIV-positive youth in Maine were non-Hispanic White (59.2 percent), and 18 were male (66.6 percent).

Youth represent a population of special concern for HIV planning and prevention, as they experience several significant risk factors related to HIV—such as higher-risk sexual behaviors, substance abuse and lack of access to health care—at higher rates relative to other age groups. HIV-positive youth may require special attention to ensure they achieve and maintain viral suppression to maximize their life span and quality of life, while also reducing their chances of transmitting HIV to others.

As indicated in section 1.3, adolescents and young adults have the highest rate of reported chlamydia and gonorrhea incidence in Maine, and nearly 38 percent of high school students surveyed in the 2013 MIYHS reported they did not use a condom at their last sexual intercourse.

Additional data from the 2013 MIYHS indicate that 11 percent of surveyed high school students reported they had four or more lifetime sexual partners, while only 14 percent had ever been tested for a STD.

According to the State of Maine's *2015 Substance Abuse Epidemiological Profile*, Maine young adults age 18 to 25 had the highest rates of binge-dinking, marijuana use, cocaine use and non-medical prescription drug abuse in the state.[19]

According to the U.S. Census Bureau, more than 17 percent of young adults age 19 to 25 in Maine were uninsured in 2013, the highest rate of any age group in the state (see section 1.1, Table 9).

Injection Drug Users

Approximately 10 percent of Maine PLWHA are identified as having acquired HIV via injection drug use; however, given the illicit and socially stigmatized nature of injection drug use, this is likely an underestimate.

State level estimates of *current* injection drug use among either Maine PLWHA or Maine residents generally are not available. Data from Maine's Office of Substance Abuse and Mental Health Services indicated that there were 4,390 individuals admitted to substance abuse treatment in 2014 who reported injection drugs as their primary drug(s) of abuse—a 56 percent increase since 2005. This increase may reflect a number of phenomena, including better data collection among substance abuse providers, more individuals seeking treatment and/or an increase in injection drug use in Maine.

Additionally, in 2014 there were 4,050 individuals enrolled in needle exchange programs in Maine.[20] From November 1, 2013, to October 31, 2014, Maine's four needle exchange programs collected 564,847 contaminated needles and distributed 535,117 clean needles. The collection of contaminated needles increased 238 percent between 2010 and 2014.[21]

Substance Users (other than Injection Drug Users)

Limited data are available on the substance use patterns of PLWHA in Maine. While 10 percent of PLWHA in Maine are likely to have acquired HIV via injection drug use, the number of HIV-positive individuals in

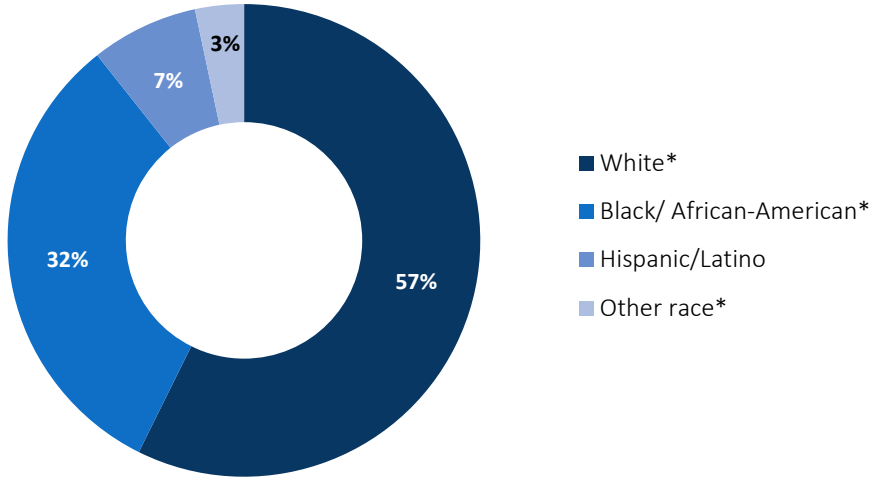
Maine currently using injection drugs or other illicit drugs is unknown. Beginning in 2015, Maine substance abuse treatment providers are required to report on the HIV status of their clients.

According to the National Survey on Drug Use and Health (NSDUH), in 2012-2013, approximately 11.3 percent (95 percent CI: 9.49 – 13.50) of Maine residents over age 12 reported using a least one illicit drug in the month preceding the survey.[22] Among individuals surveyed, those age 18 to 25 years had the highest rate of reported use (26.2 percent; 95 percent CI: 23.0 – 29.7). Marijuana was the most commonly used illicit drug among Maine youth and adults in 2012-2013.[23]

Women

As of the end of 2014, there were 300 individuals living in Maine with diagnosed HIV/AIDS whose sex at birth was female, accounting for 17.9 percent of Maine PLWHA. The characteristics of female PLWHA in Maine differed from male PLWHA, and Maine PLWHA overall, in several ways. Female PLWHA were more racially diverse: non-Hispanic White individuals accounted approximately 57 percent of female PLWHA, while they accounted for approximately 85 percent of male PLWHA and 80 percent of Maine PLWHA overall. Nearly one-third of female PLWHA in Maine were Black/African-American (Figure 21), compared to 13.4 percent of Maine PLWHA overall. Female PLWHA were more likely to have acquired HIV via high-risk heterosexual contact and injection drug use compared to male PLWHA (see section 1.2, Table 16).

Figure 21. Female PLWHA in Maine by race, 2014



** Non-Hispanic*
Source: Maine Electronic HIV and AIDS Reporting System (eHARS)

As discussed in section 1.3, adolescent and young adult women have the highest rates of chlamydia in Maine and are less likely than young men to report their most recent sexual intercourse was protected by use of a condom (see Table 19). According to the 2013 MIYHS, female high school students in Maine report lower rates of illicit drug use including heroin use than male high school students.

Key Points:

- HRSA has identified youth ages 13–24, injection drug users, substance users other than injection drug users and women as populations requiring special attention for Ryan White program planning and resource allocation.

In 2014:

- Ten of the 59 new HIV/AIDS diagnoses in Maine were among youth and young adults 13-24 (approximately 17 percent).

- There were 27 youth aged 13-24 living with living with HIV (any stage), representing 1.6 percent of all PLWHA in Maine.

- Approximately 10 percent of Maine PLWHA were likely to have acquired the disease through injection drug use.

- There were 4,050 individuals enrolled in needle exchange programs in Maine. From November 1, 2013 to October 31, 2014, Maine's four needle exchange programs collected 564,847 contaminated needles and distributed 535,117 clean needles.

- According to the NSDUH, in 2012-2013, approximately 11.3 percent (95% CI: 9.49 – 13.50) of Maine residents over age 12 reported using a least one illicit drug in the month preceding the survey. Young adults 18-25 had the highest rate of substance use in Maine.

- Nearly 18 percent of Maine PLWHA were female.

- Female PLWHA in Maine were more racially diverse than either male PLWHA or PLWHA in Maine overall.

- Female PLWHA were more likely to have acquired HIV via high-risk heterosexual contact and injection drug use compared to male PLWHA.

SECTION 3: HIV CARE IN MAINE

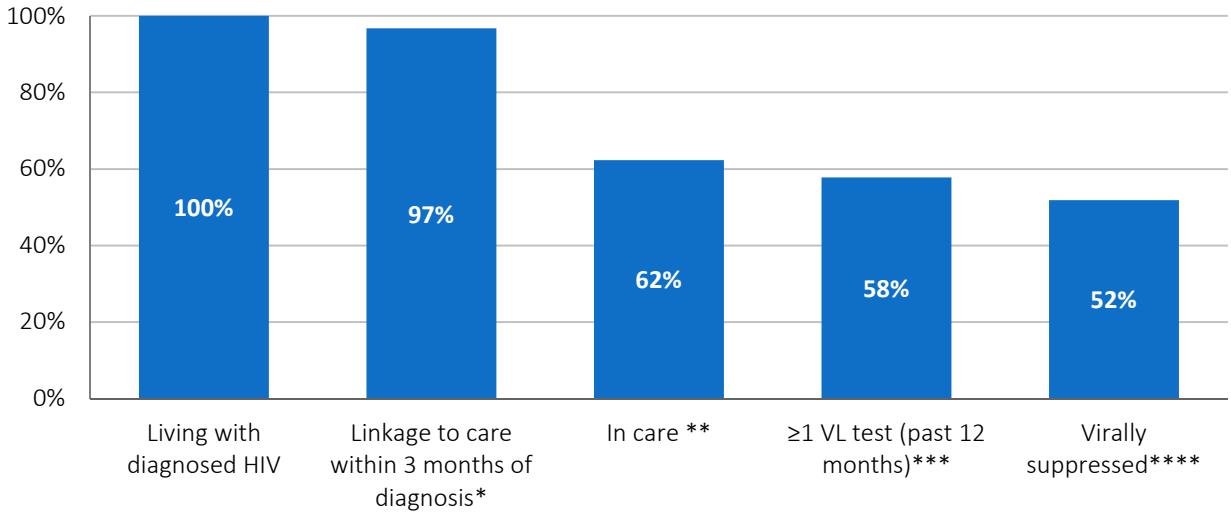
Continuum of HIV Care in Maine

Engagement in appropriate HIV medical care reduces morbidity and mortality among people living with HIV. The continuum focuses attention on health care services at critical points in engagement in HIV care, with viral load suppression as a key goal to improve individual health outcomes and reduce HIV transmission. The following section examines data on the continuum of HIV care in Maine in 2013, the latest year for which complete data on HIV care are available.

In 2013, nearly 97 percent of individuals newly diagnosed with HIV were linked to HIV care within three months of their diagnosis. The CDC defines being "linked to care" during a specified time period as having received at least one CD4+, viral load or HIV-1 genotype test during that time period.

Among the 1577 individuals diagnosed with HIV in Maine and living in the State as of the end of 2013, approximately 62 percent were in HIV care and 52 percent were considered virally suppressed. Figure 22 illustrates Maine's care continuum for 2013. Individuals are considered in care if they attended at least one health care visit in 2013.

Figure 22. Continuum of care among adult PLWHA in Maine, 2013



**For individuals newly diagnosed in 2013 only (n=33)*

*** Defined as the number of persons who had* either *≥1 CD4+ or viral load test result during 2013. Percentage calculated as the number who received any care among PLWHA*

**** Defined as the number of persons who had ≥1 viral load test results during 2013. Percentage calculated as the number retained in care among PLWHA.*

***** Defined as the number of persons who had suppressed VL (≤200 copies/mL) at most recent test during 2013. Percentage calculated as the number virally suppressed among PLWHA.*

Source: Maine Electronic HIV and AIDS Reporting System (eHARS)

Access to Care

Due to the high costs associated with HIV medical and pharmacological care, one key factor in the engagement and retention of PLWHA in HIV care is access to health insurance coverage. According to data from the 2014 National Health Interview Survey, the cost of healthcare can be a major deterrent from seeking healthcare for American adults, especially among individuals in poor health.[24]

While data on health insurance coverage among all Maine PLWHA are not available, data from the AIDS Drug Assistance Program (ADAP) can provide some insight into health insurance coverage among HIV-positive Maine residents. In 2014, approximately 60 percent of the 1,680 individuals living with diagnosed HIV (any stage) in Maine were enrolled in ADAP at some point in the year. During this year, 96.5 percent of ADAP enrollees had some type of health insurance coverage, and many had multiple forms of coverage. As detailed in Table 27, Medicaid was the most common primary insurance type among Maine ADAP clients, followed by Medicare.

Table 27. Primary health insurance types among Maine ADAP clients, 2014

Primary Insurance Type	Count	Percent (%)
Medicaid	402	40%
Medicare	343	34%
Private	213	21%
No Insurance	35	4%
Other	2	<1%
Veterans' Administration	2	<1%
Total	**997**	**100%**

Source: Maine CAREWare database

Key Points

- In 2013, more than 96 percent of individuals newly diagnosed with HIV in Maine were linked to HIV care within three months of their diagnosis.
- Among all PLWHA in Maine as of the end of 2013, 62 percent were in HIV care, and 52 percent were considered virally suppressed.
- The extent of health insurance coverage among Maine PLWHA is unknown, however 96.5 percent of HIV positive Maine residents enrolled in ADAP in 2014 had some type of health insurance.

CONCLUSION

This document was produced to serve as a tool to aid in HIV care and prevention planning efforts in Maine. Despite medical advances and focused HIV prevention and care programs, HIV continues to impact the health and well-being of Maine people. Because a significant number of new infections are occurring in Maine even as HIV-related deaths decline, HIV prevalence is slowly but steadily increasing. For this reason, continued work in prevention and care services continues to be critically important in promoting the health of all Maine residents.

Sections of this Epidemiological Profile dealing with HIV and STD data will be updated annually. Other sections pertaining to Maine population data and needs assessment activities will be updated as new data become available, likely on a biannual basis.

Appendix A: Data Sources

Behavioral Risk Factor Surveillance System (BRFSS)

Overview: A State-based random-digit-dialed telephone survey that monitors State-level prevalence of the major behavioral risks associated with premature morbidity and mortality among adults. Each month, a sample of households is contacted and one person in the household who is 18 years-old or older is randomly selected for an interview. Multiple attempts are made to contact the sampled household. A Spanish translation of the interview is available. Respondents are asked a variety of questions about their personal health behaviors and health experiences. Since 1994, the BRFSS questionnaire has included questions related to HIV/AIDS for respondents aged 18 to 65 years. These questions include perceived risk of getting an HIV infection, use of HIV testing, reasons for testing, if tested and the type of place where tested. As of 2001, respondents have been asked about HIV testing.

Population: All non-institutionalized adults, 18 years and older, who reside in a household with a telephone.

Strengths: Data are population based, thus estimates about testing attitudes and practices can be generalized to the adult population of a State. The sample is large. Information collected from the BRFSS survey may be useful for planning community-wide education programs.

Limitations: BRFSS data are self-reported, thus the information may be subject to recall bias. No attempt is made to corroborate information given in this survey. Respondents are contacted by telephone survey, thus the data are not representative of households without a telephone. In addition, BRFSS data are representative of the general non-institutionalized adult population in an area, not just persons at highest risk for HIV/AIDS. The extent of HIV behavioral risk information collected by the BRFSS questionnaire is limited and inferences can be made only at the State level.

HIV/AIDS Surveillance

Overview: Reporting of HIV infections to local health authorities as an integral part of HIV/AIDS surveillance activities has been recommended by CDC and other professional organizations since HIV was identified and a test for HIV was licensed. As part of ongoing active HIV surveillance, State and local health departments educate providers on their reporting responsibilities, establish active surveillance sites, establish liaisons with laboratories conducting CD4++ T-lymphocyte cell analysis and enzyme immunoassay and Western blot testing and follow-up of HIV cases of epidemiologic importance. HIV case reporting is mandated in Maine by State law. Surveillance data included in this report come primarily from Maine's electronic HIV/AIDS Reporting System (eHARS).

Population: All persons who test positive for HIV and are reported to the MeCDC.

Strengths: HIV surveillance data, compared with AIDS surveillance data, represent more recent infection. Among US States, HIV infection reporting is estimated to be 80-90 percent complete for persons who have tested positive for HIV. HIV surveillance provides a minimum estimate of the number of persons known to be HIV infected and reported to the health department, may identify emerging patterns of

transmission, and can be used to detect trends in HIV infections among populations of particular interest. HIV surveillance provides a basis for establishing and evaluating linkages to the provision of prevention and early intervention services and can be used to anticipate unmet needs for HIV care.

Limitations: HIV surveillance data may underestimate the number of recently infected persons because some infected persons either do not know they are infected or have not sought testing. National HIV surveillance data represent infections in jurisdictions that have reporting laws for HIV. Reporting of behavioral risk information may not be complete.

HIV Testing System

Overview: EvaluationWeb is an online system created by Luther Consulting to collect and report data from HIV testing and prevention activities. The CDC uses this data to monitor agencies and health departments funded to perform HIV prevention activities. The EvaluationWeb system allows users to either directly enter or upload data and generate reports of data variables.

Population: Persons that accessed CDC-funded HIV testing services within the State of Maine.

Strengths: Data are captured on a paper form completed by HIV test counselors during HIV test session. Data are directly key-entered into the EvaluationWeb system from the paper form. Validation codes built into the system prevent common data entry errors. MeCDC staff ensures quality and completeness of data prior to entry. Real-time reports are available to users.

Limitations: Data that were entered prior to 2012 were not directly entered, and the quality and completeness of the data are lower. Some data may be missing due to failure to capture data at point of service or due to worker entry error. HIV tests may have been performed but not captured by a data entry form.

Maine Integrated Youth Health Survey (MIYHS)

Overview: MIYHS is a bi-annual survey of Maine students in kindergarten through grade 12. The MIYHS was first administered in 2009 and is overseen collaboratively by the Maine DHHS (MeCDC and the Office of Substance Abuse and Mental Health Services) and the Maine Department of Education. Its purpose is to quantify the health of kindergarten and grade three students through parent interviews and the health-related behaviors and attitudes of fifth through 12th graders by direct student survey. Each grade-based section of the survey contains four modules with some question variation among each module. Data reported in this profile are from the 2013 survey and limited to data from high school student respondents.

Population: Students of participating Maine public high schools present in school on day of survey.

Strengths: Data are population-based and the sample of students is large. Information collected from the MIYHS survey may be useful for planning community-wide youth and outreach education programs.

Limitations: The MIYHS is a survey of students in school, therefore some subpopulations of youth, including students who have dropped out or have high rates of absenteeism, home-schooled students, homeless youth and/or runaway youth will be missed or underrepresented. Some schools with very small enrollments may also be underrepresented due to enrollment-based sampling exclusions. Finally, the MIYHS is a "pencil and paper" survey, therefore students with very limited English language proficiency and/or students with reading abilities below that of the survey may be underrepresented as well.

National Survey on Drug Use and Health (NSDUH)

Overview: The National Survey on Drug Use and Health is a source of statistical information on the use of illicit drugs by the U.S. civilian population 12 years-old and older. The survey collects data by administering questionnaires to a representative sample of the population through face-to-face computer-assisted interviewing at the respondent's residence. The information includes use of cocaine, receipt of treatment for illicit drugs and need for treatment for illicit drug use during the past year; use of alcohol, tobacco or marijuana during the past month; and perceived risk for binge drinking, marijuana use or smoking during the past month.

The NSDUH uses a 50-State sampling design; for the eight States with the largest populations, the sampling design provides a sample large enough to support direct State estimates. For the 42 remaining States and the District of Columbia, small-area estimation techniques are used to calculate State estimates. Youths and young adults are oversampled so that each State's sample is approximately equally distributed among three age groups: 12–17 years, 18–25 years and ≥26 years.

Population: Noninstitutionalized, civilian U.S. population aged ≥12 years.

Strengths: To increase the level of honest reporting, information since 1999 has been collected by using a combination of computer-assisted interviewing methods to provide respondents with highly private and confidential means of responding to questions about substance use and other sensitive behaviors.

Limitations: Smaller States, including Maine, must rely on statistical estimates. NSDUH estimates represent behaviors in the general population, thus the survey may underestimate the level of substance use in the population at highest risk for HIV. Data from the NSDUH are self-reported and thus subject to recall bias and underreporting of the level of a sensitive behavior.

Sexually Transmitted Disease Surveillance

Overview: MeCDC conducts surveillance to monitor the levels of syphilis, gonorrhea and chlamydia. Additionally, Maine (and all other States and U.S. territories) regularly submit case reports of STDs that have met the respective case definition for infection to CDC.
Case report forms include information on patient demographics, type of infection and source of report (private or public sector). Maine conducts passive and active surveillance of STDs to monitor the STD epidemic in the State.

Population: All persons with a diagnosis of an infection that meets the CDC surveillance case definition for the infection and who are reported to the local health department.

Strengths: STD data are widely available at the State and local level and because of shorter incubation periods between exposure and infection, STDs can serve as a marker of recent unsafe sexual behavior. In addition, certain STDs can facilitate transmission or acquisition of HIV infection. Finally, changes in trends of STDs may indicate changes in community sexual norms (e.g., unprotected sex).

Limitations: Reporting of STDs from private-sector providers may be less complete. Although STD risk behaviors result from unsafe sexual behavior, they do not necessarily correlate with HIV risk. For example, trends in chlamydia infections may reflect changes in reporting and screening practices rather than actual trends in disease.

Substance Abuse Treatment Data

Overview: Web Infrastructure for Treatment Systems (WITS) is Maine's Statewide Substance Abuse Treatment database that includes information about clients admitted to and discharged from treatment services. Analyses are based on entries made to the system by licensed substance abuse treatment providers on clients' reported primary, secondary and tertiary drug(s) of choice as well as other demographic and background information that is collected at intake and discharge. It is important to note that the WITS system is not static and numbers run for a time period on one day may differ when run on another day as providers are constantly inputting and updating information in the system.

Population: Individuals admitted to Maine substance abuse treatment services.

Strengths: Participation is required of all licensed substance abuse treatment providers in the State.

Limitations: Data are limited to individuals who are admitted to substance abuse treatment and are dynamic as providers are constantly inputting data. Figures are accurate only as of the date they were obtained.

Viral Hepatitis Surveillance

Overview: Surveillance for hepatitis C includes reporting of acute hepatitis C and hepatitis C virus (HCV) infection (past or present) to CDC's National Notifiable Diseases Surveillance System. The purpose of hepatitis C surveillance is to identify new cases, determine risk factors for infection, identify infected persons who can be counseled and referred for medical follow-up and evaluate prevention efforts.

Population: All persons whose reported cases of acute hepatitis C or HCV infection meet the case definitions approved by the Council of State and Territorial Epidemiologists

Strengths: Surveillance for acute hepatitis C provides information needed to determine incidence trends, transmission patterns and persons at highest risk for infection. Persons can be characterized by gender,

race/ethnicity, age and risk behavior for HCV. Surveillance for HCV infection can be used to provide infected persons with information on how to reduce both their risk of transmitting HCV to others and their risk for further liver injury and to provide them with referral for medical evaluation. It also can be used to evaluate prevention efforts by providing estimates of the proportion and characteristics of persons with HCV infection.

Limitations: Hepatitis C surveillance data should be interpreted cautiously because many reporting areas do not have the resources required for case investigations to determine whether a laboratory report represents acute infection, chronic infection, resolved infection, repeated testing of a person previously reported or a false-positive result. In addition, hepatitis C is largely asymptomatic. As a result of this, many people living with chronic HCV are unaware of their disease status, resulting in under reporting of the disease and underestimation of true acute and chronic rates of disease.

Appendix B: Data Tables

Table 28. Populations of Maine and United States by region of birth, 2014

Year	Maine			US		
	Native born	Foreign born	% Foreign born	Native born	Foreign born	% Foreign born
2000	1,238,232	36,691	2.9%	250,314,017	31,107,889	11.1%
2014	1,280,403	49,686	3.7%	276,465,262	42,391,794	12.3%

Source: U.S. Census Bureau, 2014 American Community Survey 1-Year Estimates.

Table 29. Poverty rates, Maine and United States, 2014

	Maine percent (%)	US percent (%)
Persons below poverty level	14.1%	15.5%
Families below poverty level	9.7%	11.3%
Percent of children (under 18) living below poverty level	19.1%	21.7%

Source: U.S. Census Bureau, 2014 American Community Survey 1-Year Estimates.

Table 30. Educational attainment among adults (25 years and over), Maine and United States, 2014

	Maine percent (%)	US percent (%)
Percent high school graduate or higher	91.70%	86.90%
Percent Bachelor's Degree or higher	29.40%	30.10%
Less than high school diploma	8.3%	13.1%
High school graduate (includes equivalency)	32.3%	27.7%
Some college or associate's degree	30.0%	29.1%
Bachelor's degree	19.4%	18.7%
Graduate or professional degree	10.0%	11.4%

Source: U.S. Census Bureau, 2014 American Community Survey 1-Year Estimates.

Table 31. New diagnoses and people living with HIV (any stage) in Maine, 2005-2014

Year	Total PLWHA	New Diagnoses of HIV disease	Deaths of PLWHA*	Disease rate (per 100,000)	Disease rate 95% CI (per 100,000)	Diagnosis rate (per 100,000)	Diagnosis rate 95% CI (per 100,000)
2005	930	89	16	70.4	65.9 - 74.9	6.7	5.3 - 8.1
2006	1,127	74	19	85.3	80.3 - 90.3	5.6	4.3 - 6.9
2007	1,190	64	23	90.3	85.2 - 95.5	4.9	3.7 - 6
2008	1,263	45	24	95.9	90.6 - 101.2	3.4	2.4 - 4.4
2009	1,366	55	18	103.6	98.1 - 109.1	4.2	3.1 - 5.3
2010	1,466	57	18	110.4	104.8 - 116.1	4.3	3.2 - 5.4
2011	1,507	50	19	113.5	107.7 - 119.2	3.8	2.7 - 4.8
2012	1,539	45	16	115.8	110.0 - 121.6	3.4	2.4 - 4.4
2013	1,570	33	24	118.2	112.3 - 124.0	2.5	1.6 - 3.3
2014	1,680	59	10	126.3	120.3 - 132.3	4.4	3.3 - 5.6

Source: Maine electronic HIV/AIDS Reporting System

Table 32. New diagnoses and PLWHA in Maine by diagnosis status and select demographic characteristics, 2014

	New HIV/AIDS Diagnoses		People living with diagnosed HIV/AIDS			
	Diagnosis count	% of new diagnoses	HIV count **	AIDS Count ***	Total PLWHA	% of PLWHA
SEX						
Male	41	69.5%	631	749	1,380	82.1%
Female	18	30.5%	146	154	300	17.9%
TOTAL	59	100.0%	777	903	1,680	100.0%
RACE/ETHNICITY						
Hispanic/Latino	4	6.8%	42	43	85	5.1%
American Indian/Alaska Native	0	0.0%	4	4	8	0.5%
Asian	0	0.0%	1	7	8	0.5%
Black/ African American	21	35.6%	128	97	225	13.4%
White	33	55.9%	595	750	1,345	80.1%
Multi-race	0	0.0%	7	2	9	0.5%
TOTAL	59	100.0%	777	903	1,680	100.0%
AGE GROUP						
Under 15	1	1.7%	8	1	9	0.5%
15-19	2	3.4%	7	0	7	0.4%
20-29	11	18.6%	50	17	67	4.0%
30-39	12	20.3%	155	68	223	13.3%
40-49	13	22.0%	211	235	446	26.5%
50-59	14	23.7%	246	378	624	37.1%
60+	6	10.2%	100	204	304	18.1%
TOTAL	59	100%	777	903	1,680	100%
RESIDENCE AT DIAGNOSIS (PHD)						
Aroostook	1	1.7%	17	21	38	2.3%
Central	5	8.5%	71	86	157	9.3%
Cumberland	34	57.6%	292	316	608	36.2%
Downeast	1	1.7%	34	58	92	5.5%
Midcoast	4	6.8%	54	62	116	6.9%
Penquis	6	10.2%	54	76	130	7.7%
Western	3	5.1%	106	102	208	12.4%
York	5	8.5%	141	133	274	16.3%
Unknown/missing	1	<1%	8	49	57	3.4%
TOTAL	59	100.0%	777	903	1,680	100.0%
REGION OF BIRTH						
Born in US	31	52.5%	653	796	1,449	86.3%
Born outside US	23	39.0%	94	71	165	9.8%
Birth country unknown	5	8.5%	30	36	66	3.9%
TOTAL	59	100.0%	777	903	1,680	100.0%

MODE OF HIV TRANSMISSION						
Male-to-male sexual contact	20	33.9%	461	511	972	57.9%
Injection drug use	2	3.4%	64	104	168	10.0%
Male-to-male sexual contact & injection drug use	1	1.7%	24	35	59	3.5%
Perinatal transmission (diagnosed at any age)	0	0.0%	10	8	18	1.1%
Other'	11	18.6%	133	149	282	16.8%
Heterosexual contact	25	42.4%	87	98	185	11.0%
TOTAL	59	100.0%	777	903	1,680	100.0%

Source: Maine electronic HIV/AIDS Reporting System

**Non-Hispanic*

***HIV stages 1, 2 or unknown*

**** HIV stage 3*

' Includes transmission via clotting factor, transplant/transfusion, other confirmed risks, and those with no identified (NIR) or no reported risk (NRR).

-- Suppressed due to small cell size

Table 33. PLWHA in Maine by sex and select demographic characteristics, 2014

	Male		Female		Total	
	Count	% of Total	Count	% of Total	Count	% of Total
AGE						
14 and under	3	0.2%	6	0.4%	9	0.5%
15-19	3	0.2%	4	0.2%	7	0.4%
20-29	51	3.0%	16	1.0%	67	4.0%
30-39	168	10.0%	55	3.3%	223	13.3%
40-49	363	21.6%	83	4.9%	446	26.5%
50-59	528	31.4%	96	5.7%	624	37.1%
>= 60	264	15.7%	40	2.4%	304	18.1%
Total	1,380	82.1%	300	17.9%	1,680	100.0%
RACE/ETHNICITY						
Hispanic/ Latino	63	3.8%	22	1.3%	85	5.1%
American Indian/ Alaska Native*	--	--	--	--	8	0.5%
Asian*	--	--	--	--	8	0.5%
Black/ African-American*	129	7.7%	96	5.7%	225	13.4%
White*	1,173	69.8%	172	10.2%	1,345	80.1%
Multi-race*	--	--	--	--	9	0.5%
Total	1,380	82.1%	300	17.9%	1,680	100.0%
MODE OF TRANSMISSION						
Male-to-male sexual contact	972	57.9%	0	0.0%	972	57.9%
Injection drug use	110	6.6%	58	3.5%	168	10.0%
Male-to-male sexual contact & injection drug use	59	3.5%	0	0.0%	59	3.5%
Heterosexual contact	62	3.7%	123	7.3%	185	11.0%
Perinatal transmission (diagnosed at any age)	12	0.7%	6	0.4%	18	1.1%
Other **	165	9.8%	113	6.7%	278	16.5%
Total	1,380	82.1%	300	17.9%	1,680	100.0%

Source: Maine electronic HIV/AIDS Reporting System

**Non-Hispanic*

*** Includes transmission via clotting factor, transplant/transfusion, other confirmed risks, and those with no identified (NIR) or no reported risk (NRR).*

-- Suppressed due to small cell size

Table 34. PLWHA in Maine by disease status and region of birth, 2014

	HIV (stages 1, 2 or unknown)		AIDS (HIV stage 3)		Total (all stages)	
	Adult	Pediatric	Adult	Pediatric	Count	% of total
US born	648	5	789	7	1,449	86.3%
Born outside the US	92	2	71	0	165	9.8%
Region of birth unknown	24	6	35	1	66	3.9%
Total	**764**	**13**	**895**	**8**	**1,680**	**100%**

Source: Maine electronic HIV/AIDS Reporting System

Table 35. Reported chlamydia in Maine by year and select demographic characteristics, 2010-2014

	2010		2011		2012		2013		2014	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
SEX										
Male	768	30	944	31	989	29	1,031	30	1,050	30
Female	1,814	70	2,150	69	2,422	71	2,405	70	2,479	70
Unknown	0	0	0	0	2	<1	3	<1	2	<1
RACE										
White	1,726	67	2,118	68	2,382	70	2,263	66	1,893	54
Black	102	4	114	4	141	4	138	4	139	4
Asian/Pacific Isl.	15	<1	22	<1	16	<1	10	<1	22	<1
Am. Ind/Alask. Nat.	13	<1	13	<1	16	<1	13	<1	4	<1
Other/Unknown	721	28	827	27	858	25	1,015	30	1,473	42
ETHNICITY										
Hispanic	9	<1	12	<1	9	<1	15	<1	23	<1
Not Hispanic	1,928	75	2,207	71	2,503	73	2,442	71	2,022	57
Other/Unknown	649	25	875	28	901	26	982	29	1,486	42
AGE AT DIAGNOSIS										
<15	14	<1	29	1	26	1	27	1	20	1
15-19	756	29	916	30	1,003	29	941	27	928	26
20-24	1,060	41	1,255	41	1,407	41	1,413	41	1,476	40
25-29	433	17	508	16	582	17	615	18	640	18
30-39	249	10	278	9	293	9	322	9	340	10
40-54	55	2	90	3	80	2	106	3	108	3
>54	9	<1	8	<1	8	<1	7	<1	11	<1
Age Unknown	10	<1	10	<1	14	<1	8	<1	8	<1
DISTRICT*										
York	332	13	471	15	520	15	471	14	399	11
Cumberland	629	24	749	24	746	22	793	23	827	24
Western Maine	405	16	529	17	646	19	714	21	712	20
Midcoast	244	9	279	9	278	8	277	8	292	8
Central Maine	396	15	457	15	459	13	426	12	476	14
Penquis	320	13	312	10	469	14	476	14	573	16
Downeast	132	5	178	6	191	6	168	5	140	4
Aroostook	128	5	119	4	103	3	114	3	112	3
Unknown	0	0	0	0	1	<1	0	0	0	0
TOTAL	**2,586**	**100**	**3,094**	**100**	**3,413**	**100**	**3,439**	**100**	**3,531**	**100**

*Source: Maine HIV, STD and Viral Hepatitis Program, STD * MIS*

Table 36. Reported gonorrhea in Maine by year and select demographic characteristics, 2010-2014

	2010		2011		2012		2013		2014	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
SEX										
Male	86	53	150	55	215	47	127	52	137	58
Female	75	46	122	45	241	53	119	48	98	41
Unknown	1	<1	0	0	0	0	0	0	2	1
RACE										
White	111	69	190	70	319	70	152	62	138	58
Black	19	12	37	14	80	18	51	21	25	11
Asian/Pacific Isl.	0	0	2	<1	2	<1	0	0	2	1
Am. Ind/Alask. Nat.	0	0	2	<1	1	<1	0	0	0	0
Other/Unknown	30	19	41	15	54	12	43	17	72	30
ETHNICITY										
Hispanic	2	1	2	<1	5	<1	0	0	1	<1
Not Hispanic	136	84	228	84	495	87	208	85	165	70
Other/Unknown	24	15	42	15	56	12	36	15	71	30
AGE AT DIAGNOSIS										
<15	0	0	1	<1	1	<1	2	<1	2	1
15-19	25	15	40	15	46	10	24	10	28	12
20-24	60	37	64	24	142	31	77	31	74	31
25-29	33	20	64	24	107	23	53	22	54	23
30-39	24	15	55	20	89	20	56	23	43	18
40-54	18	12	42	15	54	12	25	10	28	12
>54	2	1	6	2	16	4	9	4	7	3
Age Unknown	0	0	0	0	1	<1	0	0	1	<1
DISTRICT*										
1-York	5	3	15	6	35	8	23	9	35	15
2-Cumberland	55	34	107	39	118	26	65	26	60	25
3-Western Maine	53	33	98	36	194	43	97	40	74	31
4-Mid Coast	10	6	10	4	22	5	17	7	14	6
5-Central Maine	9	6	6	2	43	9	15	6	28	12
6-Penquis	17	10	21	8	22	5	17	7	18	8
7-Downeast	7	4	9	3	15	4	8	3	7	3
8-Aroostook	6	4	6	2	7	2	4	2	1	<1
Unknown	0	0	0	0	0	0	0	0	0	0
Total	**162**	**100**	**272**	**100**	**456**	**100**	**246**	**100**	**237**	**100**

*Source: Maine HIV, STD and Viral Hepatitis Program, STD * MIS*

Table 37. Reported syphilis in Maine by year and select demographic characteristics, 2010-2014

	2010		2011		2012		2013		2014	
	Cases	%	Cases	%	Cases	%	Cases	%	Cases	%
SEX										
Male	38	100	19	95	17	89	15	94	18	86
Female	0	0	1	5	2	11	1	6	3	14
Unknown	0	0	0	0	0	0	0	0	0	0
RACE										
White	31	82	15	75	16	84	11	69	18	86
Black	1	3	0	0	0	0	1	6	0	0
Asian/Pacific Isl.	0	0	0	0	0	0	0	0	1	5
Am. Ind/Alask. Nat.	0	0	0	0	0	0	0	0	0	0
Other/Unknown	6	16	5	25	3	16	4	25	2	10
ETHNICITY										
Hispanic	0	0	0	0	1	5	0	0	0	0
Not Hispanic	32	84	15	75	15	79	13	81	19	90
Other/Unknown	6	16	5	25	3	16	3	19	2	10
AGE AT DIAGNOSIS										
<15	0	0	0	0	0	0	0	0	0	0
15-19	2	5	1	5	2	11	0	0	1	5
20-24	7	18	3	15	4	21	3	19	3	14
25-29	9	24	6	30	0	0	1	6	1	5
30-39	7	18	4	20	10	52	7	44	5	24
40-54	10	26	5	25	3	16	4	25	6	28
>54	3	8	1	5	0	0	1	6	5	24
Age Unknown	0	0	0	0	0	0	0	0	0	0
DISTRICT*										
1-York	9	24	6	30	1	5	2	13	2	10
2-Cumberland	22	58	6	30	10	52	7	43	6	28
3-Western Maine	0	0	2	10	0	0	2	13	4	19
4-Mid Coast	2	5	2	10	0	0	0	0	2	10
5-Central Maine	2	5	1	5	6	32	2	13	0	0
6-Penquis	1	3	1	5	0	0	1	6	5	24
7-Downeast	0	0	2	10	2	11	2	13	2	10
8-Aroostook	2	5	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0
Total	**38**	**100**	**20**	**100**	**19**	**100**	**16**	**100**	**21**	**100**

*Source: Maine HIV, STD and Viral Hepatitis Program, STD * MIS*

Table 38. Viral hepatitis cases and rates (per 100,000) in Maine by year and type, 2010-2014

Year	HEPATITIS A		HEPATITIS B acute		HEPATITIS B chronic		HEPATITIS C acute		HEPATITIS C chronic	
	Count	Rate	Count	Rate	Count	Rate	Count	Rate	Count	Rate
2010	7	0.5	13	1.0	102	7.8	2	.2	1,142	87.0
2011	6	0.5	8	0.6	105	7.9	12	0.9	1,168	87.9
2012	9	0.7	9	0.7	105	7.9	13	1.0	1,214	91.3
2013	10	0.8	11	0.8	107	8.1	9	0.7	1,266	95.3
2014	8	0.6	12	0.9	108	8.1	31	2.3	1,426	107.2

Source: Maine HIV, STD and Viral Hepatitis Program

Table 39. Patients admitted to substance abuse treatment facilities in Maine reporting injection drug use and needle sharing, 2005-2014

Admitted Year	Total IV Drug Users	Total IV Drug Users That Shared Needles
2005	2,816	893
2006	2,919	834
2007	3,254	893
2008	3,446	980
2009	3,415	949
2010	3,495	926
2011	3,643	935
2012	3,903	1,052
2013	4,334	1,109
2014	4,390	1,117

Source: Maine Office of Substance Abuse and Mental Health, WITS database

Endnotes

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